

## PERSONAL INFORMATION

## Gessica Sala

 gessica.sala@unimib.it

Sex F | Date of birth 27/08/1971 | Nationality Italian

POSITION  
01/07/2024 –  
(deadline 30/06/2027)

**Assistant Professor** (Academic discipline: Neurology MEDS-12/A)  
hired on the Research Programme Age-It (Ageing Well in an Ageing Society) funded by the National Recovery and Resilience Plan,  
School of Medicine and Surgery, University of Milano-Bicocca, Monza, Italy

## WORK EXPERIENCE

01/07/2019 – 30/06/2024

**Technologist**Milan Center for Neuroscience ([www.neuromi.it](http://www.neuromi.it)), University of Milano-Bicocca, Monza (Italy)

- Coordination of research activities of NeuroMI, including:
  - design, elaboration and management of multidisciplinary research projects in the field of Neuroscience, with particular reference to the translational aspects of research in the study of human neuropsychiatric diseases, using cellular and molecular biology and genetic techniques;
  - promotion of collaborations between members of the Center;
  - organization and promotion of international meetings and periodical meetings among members.

01/02/2018 – 30/06/2019

**Post-doctoral fellow**Milan Center for Neuroscience ([www.neuromi.it](http://www.neuromi.it)), University of Milano-Bicocca, Monza (Italy)

- Translational research and project management in Neuroscience.

01/04/2005 – 31/01/2018

**Post-doctoral fellow**

School of Medicine and Surgery, Lab of Neurobiology, University of Milano-Bicocca, Monza (Italy)

- Study of pathogenic mechanisms (proteotoxicity, oxidative stress, inflammation, excitotoxicity) and discovery of biomarkers in neurodegenerative diseases using ex vivo peripheral cells from patients and in vitro disease models.

01/05/2000 – 31/01/2016

**Fellow**

Dept. of Neuroscience and Biological Technologies, University of Milano-Bicocca, Monza (Italy)

- Study of pathogenic mechanisms (oxidative stress and excitotoxicity) and discovery of biomarkers in neurodegenerative diseases using ex vivo peripheral cells from patients and in vitro disease models.

01/05/1999 – 31/12/1999

**Fellow**

Associazione "La Nostra Famiglia", Bosisio Parini (LC), Italy

- Study of the release of cytokines and neurotrophic factors from cultured blood cells of patients with brain trauma.

01/03/1998 – 31/03/1999

**Internship**

Institute of Biomedical Sciences, University of Milan, Lab. of Neurobiology at San Gerardo Hospital, Monza (Italy)

- Research topic: neurodegenerative diseases.

## EDUCATION AND TRAINING

08/02/2023  
(deadline 08/02/2034)**National Scientific Habilitation**

as associate professor in "Sciences of health professions and applied medical technologies" (06/N1)

### 13/01/2005 PhD in Neuroscience

School of Medicine and Surgery, University of Milano-Bicocca, Monza (Italy)

- Study of glutamate uptake and oxidative stress in central and peripheral cellular models of amyotrophic lateral sclerosis

### 05/1999 Qualification for the profession of biologist

University of Milan (Italy)

### 17/02/1998 Master's Degree in Biological Sciences

University of Milan (Italy)

### 01/09/1996 – 17/02/1998 Internship

Lab. of Electrophysiology, Dept. of Biochemistry and General Physiology, University of Milan (Italy)

- Study of the adrenergic and cholinergic regulation in cardiac arrhythmias.

### 1990 Bachelor in Sciences

Liceo Scientifico Statale "P. Frisi", Monza (Italy)

## MAIN RESEARCH INTERESTS

- Study of pathogenic mechanisms (proteotoxicity, oxidative stress, inflammation, excitotoxicity) of neurodegenerative diseases, identification of new therapeutic targets and neuroprotective strategies in human cell models and patient-derived cells.
- Discovery of new biomarkers for neurodegenerative diseases in patient-derived biological fluids and cells.

## TEACHING ACTIVITIES

- Teacher of the Elective Course of Neurobiology, School of Medicine and Surgery, University of Milano-Bicocca from the academic year 2000-2001.
- Adjunct professor of the Degree Course in Medical Biotechnology of the University of Milano-Bicocca for teaching: Applications in Neurology (supplementary to the official teaching: Experimental models of pathology) for the academic years 2005/2006, 2006/2007 and 2007/2008.
- Supervisor of 13 Degree thesis in Medicine and Surgery, 10 in Medical Biotechnology (Specialized Degree), 4 in Biotechnology (First Level Degree), 1 in Biology (First Level Degree) at the University of Milano-Bicocca .
- Co-tutor of 3 PhD projects in Neuroscience, Curriculum in Molecular and Cellular Biology, XXIX cycle, Dept. of Medicine and Surgery, University of Milano-Bicocca. Project title and thesis: Study of the autophagy-lysosome pathway in cellular models of Parkinson's disease (cycle XXIX); Mechanisms of TDP-43 accumulation in Amyotrophic Lateral Sclerosis (cycle XXXV); Identification of pathogenic mechanisms, therapeutic approaches and biological markers in Parkinson's disease (cycle XXXVII).
- Tutor within the Virgilio Program (VP): a pregraduate track for the training of physician scientists in Italy (University of Milano-Bicocca - Humanitas University - University of Milan) funded by the Cariplo Foundation.
- Eligibility of Higher Education Collaborators 2019 - Medical Area and Health Professions Area, University of Milano-Bicocca.

## OTHER ACADEMIC/SCIENTIFIC ACTIVITIES

- Member of the Italian Society for Neuroscience (SINS), Federation of European Neuroscience Societies (FENS), and Milan Center for Neuroscience (NeuroMI).
- Associate Editor of "Frontiers in Molecular Neuroscience", section "Brain Disease Mechanisms" (Frontiers).
- Editorial Board member of "Acta Neurologica Scandinavica" and "BioMed Research International", section of Neuroscience (Wiley).
- Review Editor of "Translational Research in Dementia", specialty section of "Frontiers in Dementia" (Frontiers).
- Guest editor of the Special Issues "Advances in Biomarkers for Neurodegenerative Diseases", Biomolecules (MDPI), "Proteotoxicity and Neurodegenerative Diseases" and "Tracking Back Proteotoxicity in Neurodegenerative Diseases", International Journal of Molecular Sciences (MDPI).
- Reviewer activity for Peer Reviewed Journals including: Neurotoxicity Research, Neuroscience Letters, Neurobiology of Disease, Molecular and Cellular Neuroscience, Cellular and Molecular Life Sciences, Plos One, Molecular Neurobiology, Translational Neurodegeneration, Antioxidants, Brain Research, Expert Opinion on Therapeutic Patents, Parkinsonism and Related Disorders, Frontiers in Aging Neuroscience, Cell Biology International, Basic & Clinical Pharmacology & Toxicology, Cells, The Journal of Pathology, Scientifica, Scientific Reports.

## LANGUAGE SKILLS

Mother tongue Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
	FCE (2003)				
French	B2	B2	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

## MEETING PARTICIPATION

- 19/06/1999: Riunione annuale sezioni lombarde Società Italiana di Neurologia (SIN)- Società Neurologi Ospedalieri (SNO), Monza, Italy
- 2-5/10/1999: XXXI Congresso Società Italiana di Neurologia (SIN), Centro Congressi, Verona, Italy
- 15/06/2000: Satellite Symposium of the Tenth Meeting of the European Neurological Society (ENS) sulla SLA, Università di Milano - Ospedale Maggiore Policlinico, Milano, Italy
- 22-25/05/2001: "Advances in molecular mechanisms of neurological disorders", European Society for Neurochemistry (ESN), Perugia, Italy
- 24-26/06/2001: The decade of the brain at the C. Mondino foundation, IRCCS C.Mondino, Pavia, Italy
- 3/11/2001: Il Giornata monotematica ITINAD: Biological markers in Alzheimer Disease, Monza, Italy
- 09-12/07/2002: XIII Congresso della Società Italiana di Neuropsicofarmacologia (SINPF). Nuove frontiere in Neuropsicofarmacologia: dal genoma alla terapia, Milano, Italy
- 13-17/07/2002: 3rd Forum of European Neuroscience (FENS), Paris, France
- 26-28/09/2003: Congresso Nazionale della Società Italiana di Neuroscienze (SINS), Area di Ricerca del CNR, Pisa, Italy
- 10-14/07/2004: 4th Forum of European Neuroscience (FENS), Lisbon, Portugal
- 7-10/10/2004: 1° Convegno toscano "Patologie del motoneurone" (Ist. Neurologico C. Mondino), Buonconvento (SI), Italy
- 1-4/10/2005: Congresso Nazionale della Società Italiana di Neuroscienze (SINS) Ischia (NA), Italy
- 6-7/06/2008: PreMed 2008 – Contribution of Laboratory Medicine to Primary Prevention, Monza, Italy
- 19-20/06/2008: 5th Meeting on Molecular Mechanisms in Neuroscience, Milano, Italy
- 12-16/07/2008: 6th Forum of European Neuroscience (FENS), Geneva, Switzerland
- 13-15/05/2011: V Meeting on the Molecular Mechanisms of Neurodegeneration, Milan, Italy
- 3-5/10/2013: XV Congress of the Italian Society of Neuroscience (SINS), Roma, Italy
- 28-30/05/2015: VI Meeting on the Molecular Mechanism of Neurodegeneration, Milan, Italy
- 6-8/07/2016: II International Meeting of the Milan Center for Neuroscience (NeuroMi): "Prediction and prevention of dementia: new hope", Milan, Italy
- 31/01/2017: International Symposium on Neurobiology – Joint Meeting University of Milano-Bicocca and University of Surrey, Milan, Italy
- 13-15/09/2017: NeuroMi 2017 - International Symposium "Personalised Medicine in Multiple Sclerosis", Milan, Italy
- 21-23/11/2018: member of Executive Board of 4th NeuroMI International Meeting "Brain Stimulation and Brain Plasticity: from Basic Research to Clinical Practice", Milan, Italy
- 20-22/11/2019: member of Executive Board of 5th NeuroMI International Meeting "Food for Brain: promoting health and preventing diseases", Milan, Italy
- 18/12/2020: member of Executive Board of "NeuroMI 2020: Virtual Annual Meeting of Members of the Milan Center for Neuroscience"
- 9-10/11/2021: member of Executive Board of "NeuroMI 2021: Virtual Annual Meeting of Members of the Milan Center for Neuroscience"
- 6-7/10/2022: "Human brains – Preserving the brain – Forum on neurodegenerative diseases", Fondazione Prada, Milan, Italy
- 4/11/2022: member of Executive Board of "NeuroMI 2022: Annual Meeting of the Milan Center for Neuroscience", Milan, Italy
- 10-11/5/2023: XII National Meeting Brain & Malnutrition 2023 "Nutrition and Neurodegeneration", Milan, Italy
- 16/5/2023: "Transcranial electrical stimulation: young researchers for new research lines", Aldo Ravelli Center, Dipartimento di Scienze della Salute, Università degli Studi di Milano, Milan, Italy
- 5/12/2023: member of Executive Board of "NeuroMI 2023: Annual Meeting of the Milan Center for Neuroscience", Milan, Italy
- Scheduled for 23-25/10/2024: member of Executive Board of 6° NeuroMI International Meeting "Brain Health and prevention of cognitive decline", Milan, Italy

## RESEARCH PROJECT PARTICIPATION

• Design, development and management of multidisciplinary research projects in the field of Neuroscience, with particular reference to the translational aspects of research (national collaborative research projects - COFIN-PRIN and FIRB MIUR, Cariplo, ARISLA, Telethon, Ministry of Health - and international - European FP7 project, Michael J. Fox Foundation, Cure Parkinson's Trust, Thierry Latran).

Participation in some funded research projects is shown below:

- IVASCOMAR project that is part of the National Technology Cluster of Life Sciences ALISEI (MIUR) from 01-07-2013 to 31-12-2017;
- Network Enabled Drug Design (NEDD) project, Lombardy Region, from 01-04-2011 to 30-09-2013;
- project "Post-translational modifications of alpha-synuclein and isoforms deriving from alternative splicing as potential biomarkers of Parkinson's disease" funded by the University of Milano-Bicocca from 01-01-2014 to 31-12-2014;
- "Autophagy and intracellular signaling in Alzheimer's and Parkinson's disease" project funded by the University of Milano-Bicocca from 01-01-2015 to 31-12-2015.
- Collaborative project NEVERMIND "New frontiers of engineered nanovectors to improve treatment efficacy and safety in neurological disorders", funded by Regione Lombardia. Project partners: IRCCS Fondazione Don C. Gnocchi, Univ. Milano-Bicocca, IRCCS Istituto Clinico Humanitas, IRCCS Ospedale San Raffaele, Univ. Milano from 01-01-2020 to 30-06-2023.

## MEETING ORGANIZATION

- Organization and promotion of NeuroMI international meetings (training, dissemination and networking events with other institutions and companies, also aimed at enhancing research results):
  - Member of the Executive Board of 4th NeuroMI International Meeting "Brain Stimulation and Brain Plasticity: from Basic Research to Clinical Practice", 21-23 November 2018, University of Milano-Bicocca;
  - Member of the Executive Board of the 5th NeuroMI International Meeting "Food for Brain: promoting health and preventing diseases", 20-22 November 2019, University of Milano-Bicocca.
  - Member of the Executive Board of the 6th NeuroMI International Meeting "Brain Health and prevention of cognitive decline", scheduled for 23-25 October 2024, University of Milano-Bicocca.
- Organization of annual meetings of the members of NeuroMI.

## TECHNICAL SKILLS

- Known techniques: biochemistry techniques, cellular and molecular biology including cell cultures, preparation of primary cultures of human fibroblasts from skin biopsies, colorimetric and fluorimetric assays for the evaluation of vitality, necrosis, apoptosis and enzymatic activities, isolation of the different components of the blood, separation of cytosolic, nuclear, lysosomal and mitochondrial fractions, immunoprecipitation, Western blot, dot-blot, ELISA, HPLC, real-time pcr, gene silencing techniques, biochemical assays with radiopharmaceuticals for the evaluation of membrane transporter activity (uptake) and receptor density (binding).

- Coordination of the different aspects of the clinical trials (collection, processing and transfer of data), including the preparation of the documentation for the local Ethics Committee and the maintenance of contacts with Sponsors and Patient Associations.

- Set up and management of biobanks of biological samples (CSF, plasma, serum, platelets, lymphocytes, monocytes, DNA, RNA) and primary cell lines (skin fibroblasts) obtained from patients and controls.

## DIGITAL SKILLS

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Independent user	Basic user

Levels: Basic user - Independent user - Proficient user

[Digital competences - Self-assessment grid](#)

▪

## OTHER SKILLS

- Ability to work independently and to coordinate a work team.
- Determination in achieving a goal and flexibility in dealing with critical issues.
- Planning and time management skills aimed at obtaining results in a short time.

## SCIENTIFIC PRODUCTION

Author of 51 scientific publications in indexed journals, over 130 abstracts / communications at conferences and 6 book chapters. H-index: 22, citations: 2123, co-authors: 1536 (**Scopus 26/07/2024**).

Detailed information in:

Scopus <http://www.scopus.com/authid/detail.url?authorId=7102667482> and  
Google Scholar <https://scholar.google.it/citations?user=A4EoDXMAAAAJ&hl=it>.

I authorize the processing of my personal data (in compliance with the GDPR and the Italian Legislative Decree no. 196 dated 30/06/2003).

Date: 26/07/2024

Gessica Sala

