



CURRICULUM VITAE ANNA BERSANO

Birth Date and Place: May 14th, 1972, Genova, Italy
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EDUCATION

Undergraduate. 1985-1990_Alessandro Manzoni Classical Lyceum, Milan
Summa cum laude

Graduate. 1991-1997 Milan University Medical School
Thesis: Effect of alfa-MSH on proinflammatory effects of microglia induced by beta-amyloid
Summa cum laude

Post-graduate 1998-2003 Residency in Nervous Disorders at the University Medical School
Thesis: 'Disability and psychosocial outcome in Guillain-Barre' syndrome patients: a 3-5 years follow-up study'
Summa cum laude

Philosophiae Doctorate 2003-2006 PHD in 'Neurological and Pain Sciences' at the Department of Neurological Sciences of Milan University
Thesis: 'Genetics of stroke'
Summa cum laude

Training 2004. EUSI European Stroke Summer School (Krems, Austria) (European Stroke Iniziative)

2006. Two months training at Heidelberg University Stroke Unit, Germany (Prof.W.Hacke) and laboratory of genetics (Dr.c.Grond-Ginsbach)

2010 Obtainment of Switzerland FMH of Medical Doctor and Neurologist

POSITIONS

2021 to now Head of Cerebrovascular Unit at Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan, Italy

2020 Adjunct Professor at Residency school of Neurology, University of Milan

2017 and 2020 Abilitation as Full Professor of Neurology

2014 to now Head of Cellular therapy Unit Istituto Neurologico 'C.Besta' di Milano

2012 to 2021 permanent position as Neurologist at Cerebrovascular Unit, Istituto Neurologico 'C.Besta' di Milano

2012 University researcher at University of Pavia/IRCCS Istituto Neurologico Nazionale 'C. Mondino'

2011 Neurologist with a research contract at l'IRCCS Istituto Neurologico Nazionale 'C. Mondino'

2010 Neurologist at Neurocenter of Ospedale Civico di Lugano, Switzerland

2004-2008 Emergency neurologist at the hospital 'Istituto Auxologico San Luca, Milan'

2003-2008 Responsible of the Cerebrovascular disease outpatient activity of the Department of Neurological Sciences of Milan University

2003-2008 Doctorate/PhD at Department of Neurological Sciences of Milan University

1998-2003. Resident at Department of Neurological Sciences of Milan University

1995-1998. Student at Department of Neurological Sciences of Milan University as student.

SCIENTIFIC ACTIVITIES

2023 Member of ESO Direction Board

2023 independent observer of TRICS-9 trial on stroke reconditioning (<https://clinicaltrials.gov/ct2/show/NCT04400981>)

2022 Coordinated ESO Moyamoya guidelines

2022 Independent monitor of international trial T3-CAD-01 study (HOVID) on CADASIL

2022 Advisory of the Moyamoya Task Force: A Multi-disciplinary Translational Project for Improving Patient Care and Unraveling the Mysteries of Moyamoya Arteriopathy, Oslo University Hospital

From 2022 Co-Chair of Neurovasc Group of European Rare Disease Network (VASCERN) on CADASIL and Moyamoya arteriopathy

From 2022 Elected as Delegate of European Academy of Neurology (EAN).

From 2022 Members of the Panel of Rare Neurological Diseases of European Academy of Neurology (EAN).

From 2021 external monitor of the study T3-CAD-01 study on treatment of CADASIL

From 2021 elected as EAN representative at ESO Education Committee

From 2020 to 2021 member of Dissection guidelines group of ESO

From 2020 to now Co-chair of Stroke Management Panel of European Academy of Neurology (EAN).

From 2019 to now is part of the WISE (Woman in Stroke) of European Stroke Organization (ESO)

2019 Coordinator together with Alessandro Pezzini of (YARDS) the young and rare disorders associated with Stroke at ISA

2018 member of Panel of Monogenic stroke of European Academy of Neurology (EAN)

From 2017 Coordinates SENECA study (SEarchiNg biomarkErs Cerebral Angiopathy) at Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan, Italy

From 2015 collaborates with European Moyamoya Initiative and with the laboratory of the Department of Neurosurgery Charite Universitätsmedizin Berlin, Germany for the study of pathogenic mechanism of Moyamoya disease

From 2014 coordinates GENOMA (Genetics of Moyamoya disease) study at Fondazione IRCCS C.Besta Neurological Institute, an Italian Network for the study of Moyamoya disease and syndrome

From 2011 coordinator of SVE-LA (Small Vessel and Lacunar) study coordinated by IRCCS Istituto Neurologico Nazionale 'C.Mondino'

(Dr.G.Micieli) for the study of genetics of lacunar and small vessel disease

From 2010 is Co-PI to the study Mannose binding lectin, a potential new target for stroke therapy, coordinated by Mario Negri Research Institute, Milan

2008 participate to Synthesis, a randomised controlled Study to compare the efficacy of i.v versus i.a rtPA

From 2008 to 2010 Participated to SIFAP1 and SIFAP 2 study on incidence Fabry disease in young stroke patients

From 2007 to 2009. Coordinates the project Lombardia GENS, funded by Lombardia region, a regional network for the diagnosis of monogenic disorders associated with stroke (<http://www.strokecenter.org/trials/TrialDetail.aspx?tid=958>)

2004-2008. Researcher of stroke genetics, studying both monogenic disease and molecular variants involved in multifactorial stroke.

2006-2008. Member of a research project of the Intensive Unit of the Milan University Neurological Department/ Neuropathology Department of Verona University oriented to detect early markers of damage in subarachnoidal hemorrhage.

2006-2008. Member of CADISP group concerning Cervical Artery Dissection and Ischemic Stroke Patients, Genetic risk factors of cervical artery dissections/An association study)

2004-to now Consultant for CADASIL, FABRY DISEASE, AMILOYDOSIS, FAMILIAL HEMIPLEGIC MIGRAINE, MOYAMOYA on ORPHANET website (www.orpha.net)

2003-2008. Member of the Management team for Registry of Endovascular Procedures, Epiaortic and Intracranial Vessel Stenosis in collaboration with the Department of Diagnostic and Interventional Neuroradiology of our hospital

2003. Researcher and coordinator of the research project PROSIT, funded by Lombardia Region and Minister of Health concerning analysis of stroke services in Italy

2003. Four-year scholarship on cerebrovascular disorders and related pathogenesis, epidemiology and therapy

1998. One year research fellowship on Epidemiology of Guillain-Barré syndrome from the IRCCS 'Istituto Neurologico Casimiro Mondino' in Pavia

RESEARCH AREAS:

- 1997-2003: Guillain-Barré syndrome and dysimmune neuropathies
- 2002-2011: Quality of Stroke Care for acute stroke patients and Stroke Unit
- 2003 to now: Genetics of stroke (CADASIL, Fabry disease, MELAS)
- 2003-2011: Genetics of epiaortic vessel dissection
- 2004-2010: Registry of endovascular procedures of epiaortic and intracranial vessel stenosis
- 2004-2009: Predictor markers of damage and vasospasm in subarachnoid hemorrhage
- 2009-2011: Inflammatory mechanism in cerebrovascular disease
- 2011-to now: Pathogenic mechanism of small vessel disease
- 2012 to now: Genetics of ischemic and post traumatic disorders of consciousness
- 2014 to now: Moyamoya syndrome: pathogenic mechanism and clinical features
- 2016: Susac Syndrome and Sneddon Syndrome
- 2016 to now: phenotype and biomarkers of cerebral Amyloid Angiopathy (CAA)

INTERNATIONAL COLLABORATIONS

Department of Clinical Neuroscience, Cambridge University, Cambridge, UK, (Prof.H.Markus) (genetics of stroke)

Department of Epidemiology of Bordeaux University, France (Prof.S.Debette), neurological Unit at Lille University, France (Prof.L.Didier) and Laboratory of genetics of Heidelberg University, Germany (Dr.C.GronD-Ginsbach) for CADISP (Cervical Artery Dissection and Ischemic Stroke Patients: Genetic risk factors of cervical artery dissections: an association study) study on genetics of carotid artery dissection)

International Stroke Genetic Consortium (ISGC; www.strokegenetics.com)

Radboud Universiteit, Nijmegen, The Netherlands (Prof. K.Klijn) and Unite de Recherche de l'Inserm, Paris, France (Prof.E Tournier-Lasserre) for the European Moyamoya Initiative

Department of Neurosurgery, Charite Hospital, Berlin Germany (pro.P.Vajcocy-Dr. K.Blechardz), pathogenesis of Moyamoya

Unite de Recherche de l'Inserm U 25, Hopital Saint-Antoine, Paris, France (Prof E Tournier-Lasserre) for Moyamiya and CADASIL

Neurological Unit, University of Essen, Germany (Dr.M.Kraemer) for Moyamoya disease and Sneddon/Divry van Bogaert syndromes

Centre de Reference des Maladies Vasculaires Rares du Cerveau, Paris (CEVCO) (Prof.H.Chabriat; Dr.D.Hervè) for Moyamoya and CADASIL

Department of Clinical Genetics, Leiden University Medical Center Leiden,
The Netherlands (Saskia AJ Lesnik Oberstein) for CADASIL

TUTORING ACTIVITIES

2023 Examiner at Doctorate degree at University of Milan Bicocca
2022 Examiner of type A Researcher at University of Milan
2020: Lectures at Humanitas University (Hunimed)
2020 Idoneity as Full Professor
2020 Assistant Professor at University of Milan
2019 Examiner at Doctorate degree at Istituto di Ricerche Farmacologiche Mario Negri-IRCCS di Milano
2019 Lecture at residency school of the University of Milan
2018 Lecture at Doctorate School of L'Aquila University
2017 Teaching course Work up of stroke: Clinical pregenetic screening for stroke monogenic diseases, European Stroke: Organization Conference (ESOC) 2017, Prague, Czech Republic
2017 training course on Moyamoya disease at Neurocenter of Italian Switzerland, Ospedale Civico Lugano
2014: organization of training course on Fabry disease (Istituto Neurologico C.Besta, Milan, 14 september 2014)
2012 and 2013 Participation as Tutor at Master on Cerebrovascular Disease, University of Milano-Bicocca) 2013 Partecipazione come docente alla IV edizione del Master di II
2011: organization of a training course 'Genetic counselling'
2005-2009: organization of training courses for nurses, neurologists, physiotherapists to implement a Stroke Unit

SCIENTIFIC SOCIETIES

2022 Member of Faculty of ESO Stroke Summer School

2022 Advisory of the Moyamoya Task Force: A Multi-disciplinary Translational Project for Improving Patient Care and Unraveling the Mysteries of Moyamoya Arteriopathy, Oslo University Hospital

From 2022 to now Members of the Panel of Rare Neurological Diseases of European Academy of Neurology (EAN).

From 2022 to now Elected as Delegate of European Academy of Neurology (EAN).

From 2022 Co-Chair of Neurovasc Group of European Rare Disease Network (VASCERN) on CADASIL and Moyamoya arteriopathy

From 2022 Member of the Panel of Rare Neurological Diseases of European Academy of Neurology (EAN).

2022 Coordination of ESO Moyamoya guidelines

2021 and 2022 Member of Faculty of ISA (Italian Stroke Association) Summer School

From 2021 to now EAN representative of ESO Education Committee

2020 to now member of Dissection guidelines group of ESO

From 2020 to now Co-chair of Stroke Management Panel of European Academy of Neurology (EAN).

2018 member of Panel of Monogenic stroke of European Academy of Neurology (EAN)

From 2019 to now is part of the WISE (Woman in Stroke) of European Stroke Organization (ESO)

2019 Coordinator together with Alessandro Pezzini of (YARDS) the young and rare disorders associated with Stroke at ISA

Member of the following scientific societies: *Società Italiana di Neurologia (SIN), Italian Stroke Organization (ISO), European Stroke Organization (ESO), American Heart Association (AHA), European Academy of Neurology (EAN)*

FUNDINGS

5PERMILLE of Fondazione IRCCS Istituto Neurologico Carlo Besta 'Empowering progression risk of cerebral amyloid angiopathy'

Neuro Virtual hospital: modello di gestione multidisciplinare in remoto dei pazienti neurologici (NOVHO) COVID Regione Lombardia

RF-2019-12369247 (PI) Empowering the pathophysiology and prognosis of moyamoya arteriopathy

GR-2008-1136044 mannose binding lectin, a potential new target for stroke therapy: biochemical, in vitro and in vivo experimental, and clinical approaches to define its role in ischemic injury

SVE-LA Project. Progetto per la ricerca indipendente DGS13465 del 22/12/2010.(Dr.G.Micieli, Dr.A.Bersano)

Lombardia GENS (GENetics of Stroke) project, Progetto per la Ricerca Indipendente, Regione Lombardia (DGR no. VIII/006128-12/12/2007) (Prof.L.Candelise, Dr. A.Bersano)

GUIDELINES ACTIVITY

2021-2022: Coordinator of ESO guidelines on Moyamoya
2019 Collaborator at ESO guidelines on Carotid Dissections
2020 Collaborator at ISO SPREAD guidelines on young stroke and rare diseases
2018 EAN recommendations 'Monogenic cerebral small-vessel diseases: diagnosis and therapy. Consensus recommendations of the European Academy of Neurology' (Eur J Neurol 2020;27: 909-927)

PARTICIPATION TO NATIONAL AND INTERNATIONAL PROJECTS

- Coordinator of multicenter Italian project SENECA (SEarchiNg biomarkErs Cerebral Angiopathy)
- Coordinator of multicenter Italian project GENOMA coordinato dall'Istituto Neurologico C.Besta (Genetics of Moyamoya Disease), network italiano multicentrico per lo studio della malattia di Moyamoya
- Coordinator of multicenter Italian project SVE-LA (Small Vessel and Lacunar) on genetic factors associated with small vessel diseases
- Coordinator of multicenter Italian project LOMBARDIA GENS, on stroke associated monogenic disorders
- Coordinator of multicenter Italian project PROSIT 2 (Research Project on acute Stroke patient care in Italy).
- Participation to Ethnic/Racial Variations of Intracerebral Hemorrhage (ERICH)-Gene Study, coordinated by dal Massachusset General Hospital, Boston, US;
- Collaborator of Call to Action: SARS-CoV-2 and Cerebrovascular Disorders (CASCADE)
- Collaborator of IPSYS CAD long-term study coordinated by Brescia University (Prof. A. Pezzini);
- Collaborator at registry for Reversible Vasospasm coordinated by Brescia University (Prof. A. Pezzini);
- Collaborator of SIFAP 1 and 2 (Stroke in Young Fabry Patients) coordinated by Rostock University
- Collaborator of Synthesis Expansion

- Collaborator of 'Juvenile and perinatal stroke: population genetic analysis for the identification of pathogenic alleles and predisposing factors' study
- Collaborator of Foramen Ovale Registro Italiano (FORI) study
- Collaborator of International Stroke Genetic Consortium (ISGC; www.strokegenetics.com) Collaborator of CADISP (Cervical Artery Dissection and Ischemic Stroke Patients: Genetic risk factors of cervical artery dissections: an association study)

REVIEWER FOR THE FOLLOWING SCIENTIFIC JOURNAL

New England Journal of Medicine, Lancet Neurology, Annals of Neurology, Neurology, Stroke, Journal of Neurology Neurosurgery and Psychiatry, Cerebrovascular Disease, PLOS One, Journal of Neurology, Journal of Cerebral Blood Flow and Metabolism, Journal of the Neurological Sciences, European Journal of Neurology, BMC neurology, International Journal of stroke, Thrombosis and Haemostasis, Annals of Medicine, Acta Neurologica Scandinavica, Neurology Genetics, Neurology Clinical Practice, International Journal of Stroke, European Journal of Human Genetics, European Journal of Medical Genetics, Neurological Sciences, Clinical Neurology and Neurosurgery, Review of Cardiovascular Therapy, Clinical neurology, Case Reports in Neurology, Expert Opinion On Biological Therapy, Mini-review in Medicinal Chemistry, Current medicinal chemistry, The Journal of Headache and Pain, Clinical and Experimental Immunology, Medical care, Case report in Cardiology, Annals of Cardiovascular diseases, International Journal of geriatric Psychiatry, Oncotarget, Neuroepidemiology, IJMS, The Application of Clinical Genetics, European Journal of nephrology

REVIEWER FOR PUBLIC GRANTS

2016 Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO).

2017 Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO).

ADVISORY AND EDITORIAL BOARDS

2010-2011: Leading Guest Editor of Special Issue 'Genetics of Stroke' on Stroke research and Treatment

From 2008 member of CADISP group

From 2008 member of the International Stroke Genetic Consortium (ISGC)

From 2015 member of European Moyamoya Initiative

2015: member of the International Congress of Vascular Dementia (ICVD) working group

2015-2017 abstract reviewer for International Stroke Conference (AHA)

2018 Guest Editor for 'International Journal of Molecular Science' with the Special Issue
"Pathophysiology and Treatment of Stroke: Present Status and Future Perspective"

2019 Guest Editor for Journal of Clinical Medicine with the Special Issue "Moyamoya Arteriopathy:
Recent Advances and Future Challenges"

From 2020 Associated Editor of 'BMC neurology'

From 2020 Editor 'International Journal of Molecular Science'

From 2020 Assistant Editor of 'Stroke', Journal of American Heart Association (AHA)

From 2021 Associated Editors of Frontiers in Neurology

From 2022 Senior Editor of BMC neurology

From 2020 Member of the Editorial Board of Neurology

SCIENTIFIC CONFERENCES PARTICIPATION

Invited to more than 100 (national and international) seminars as speaker and chair

PUBLICATIONS

*Authors of 167 peer reviewed publication and 8 book chapter
H-index: 33 (Scopus)*