**CURRICULUM VITAE ZANUSSO GIANLUIGI**  
  
Born in Desenzano del Garda (BS) on September 21, 1963  
Associate Professor SSD MED / 26 from 1.11.2014  
Affiliation: University of Verona, Department of Neurosciences, Biomedicine and Movement Sciences  
  
**Address:**  
Neurology B  
Policlinico "Giambattista Rossi",  
Piazzale L.A. Scuro, 10  
37134 VERONA  
Tel: 045-8124461  
Fax: 045-8027492  
E-mail: gianluigi.zanusso@univr.it  
  
**PERSONAL TRAINING AND POSITIONS**  
1982 Diploma of Scientific Maturity  
1990 Degree in Medicine and Surgery with a score of 110/110 cum laude, at the University of Verona.  
1994 Board in Neurology with a score of 50/50 cum laude at the University of Verona.  
1989-1990 Student at the Institute of Neurological Clinic of the University of Verona.  
1990-1994 Specialization in Neurology at the Institute of Neurological Clinic of the University of Verona.  
1996-2000 PhD in Neuroscience.  
2000 PhD in Neurosciences at the University of Verona

2001-2002 Postdoctoral fellowship.  
2002-2014 Staff Researcher at the University of Verona.  
2014 Associate Professor in Neurology at the University of Verona.  
2018 Qualified as Full Professor in Neurology.  
October 2018 Coordinator of the PhD program in Neurosciences, Psychiatric Psychological Sciences and Movement Sciences, University of Verona.

**TEACHING ACTIVITY**  
From 2002 to date he has been tutoring and preparing thesis and specialty thesis on topics related to his research activity to internal students at the School of Medicine and Surgery of the University of Verona .   
Since 2002 he has held classes, lectures, seminars and theoretical-practical activities for the students of the Degree in Medicine and Surgery, University of Verona.  
From 2012-2014 Coordinator of the teaching of Neurology course at the degree course in Physiotherapy, located in Rovereto (TN).  
Since 2014 Coordinator of the teaching of "Neurology" at the degree course in Physiotherapy, University of Verona.  
Since 2014 Coordinator of the teaching of "Neurology" at the degree course in Nursing, University of Verona.

**TEACHING AND TRAINING ACTIVITIES IN THE PH.D PROGRAM**Since 2010 Board of teachers of the PhD in Neurosciences, Psychological and Psychiatric Sciences, and Movement Sciences, University of Verona. He has participated actively in PhD program, through the training of students and as a thesis supervisor.

2016-2018Member of the working group that evaluates the training offer, as well as identifying and discussing the potential critical aspects of the PhD program.

From October 2018 he is PhD program coordinator in Neuroscience, Psychiatric Psychological Sciences and Movement Sciences, University of Verona.  
  
**RESEARCH ACTIVITIES - AREAS OF SCIENTIFIC INTEREST**The research activity is proven by the publication of works in peer-reviewed journals and book chapters and by numerous presentations of contributions to national and international conferences.

This research activity has developed in the following areas of interest:

**Human and animal transmissible spongiform encephalopathies** In vitro models of prion genetic diseases  
Production of new monoclonal antibodies in prion diseases  
Involvement of the olfactory system in sporadic Creutzfeldt-Jakob disease

Biochemical characterization of human and animal prion strains in two-dimensional electrophoresis

Identification of sporadic bovine spongiform encephalopathy  
Experimental transmission of sporadic bovine spongiform encephalopathy  
Identification of a new prion strain in Creutzfedlt-Jakob disease  
Diagnosis in life of sporadic Creutzfeldt-Jakob disease with nasal brushing

Development of the RT-QuIC prion amplification test  
Preclinical diagnosis of genetic prion diseases through nasal brushing  
**Neurodegenerative diseases**  
Amplification of amyloid seeds in various neurodegenerative diseases (alpha-synucleinopatie, taupathies, TDP-43 patie, Alzheimer's disease) by RT-QuIC  
Involvement of Olfactory Neurons in the

Involvement of Olfactory Neurons in neurodegeneration  
Intravital diagnosis of alpha-synucleinopathies by RT-QuIC in the CSF of patients with Parkinson's disease and Lewy body dementia

**PERSONAL EMBERSHIP AND OTHER EXPERIENCES**  
2002-2007 Member of the Ministerial Commission called National Task Force of Transmissible Spongiform Encephalopathies established with D.M. of 6 February 2002.  
2003-2009 Member of the European Network of Excellence for Prion Diseases (Neuroprion)  
2009 Member of the Neuroprion Association.  
2000- Manuscript Reviewer, Science, PLoS ONE, PLoS Pathogens, PLos Medicine, Journal of Alzheimer's Disease, Electrophoresis, Journal of Proteomic Research, Journal of Proteomics, Frontiers Neurology, Frontiers in Aging Neuroscience, Journal of General Virology, Medicinal Chemistry Communications, Nature Clinical Practice Neurology, Journal of Neurological Sciences, Future Neurology, BMC.  
2011- Review Editor "Frontiers in aging neuroscience"  
2012- Associate Editor "PLoSONE"  
2012. Member of the European Network of "Joint Programming Neurodegenerative Disease"  
2104 Co-Head of the Scientific Association of Italy in the CJD International Support Alliance network (CJDISA)  
  
**INDICATORS OF SCIENTIFIC PRODUCTION AT INTERNATIONAL VALIDITY** (obtained from Web of Science):  
• Total number of citations: 3071  
• h-index: 31

**PublicaTIONS**

**In vitro models of genetic prion disorders**

Singh N, Zanusso G, Chen S, Fujoka H, Richardson S, Gambetti P, Petersen R. Prion protein aggregation reverted by low temperature in transfected cells carrying a prion protein gene mutation. J Biol Chem 1997; 272: 28461-28470

Zanusso G, Petersen R B, Jin T, Kanoush R, Ferrari S, Gambetti P and Singh N.. Proteosomal degradation and N-terminal protease resistance of the codon 145 mutant prion protein. J Biol Chem 1999; 274: 23396-23404

Jin T, Gu Y, Zanusso G, Sy M, Kumar A, Cohen M, Gambetti P, Singh N. The chaperone protein BiP binds to a mutant prion protein and mediates its degradation by the proteasome. J Biol Chem 2000; 275:38699-38704

Li R, Liu D, Zanusso G, Liu T, Fayen JD, Huang JH, Petersen RB, Gambetti P, Sy MS. The expression and potential function of cellular prion protein in human lymphocytes. Cell Immunol 2001; 207:49-5

**Generation of monoclonal antibodies**

Zanusso G, Liu D, Ferrari S, Hegyi I, Yin X, Aguzzi A, Hornemann S, Liemann S, Glockshuber R, Manson J C, Brown P, Petersen R B, Gambetti P and Sy M S. Prion Protein expression in different species: analysis with a panel of new mAbs. Proc Natl Acad Sci, USA 1998; 95:8812-8816

**Olfactory system involvement in sporadic Creutzfeldt-Jakob sporadica**

Zanusso G, Ferrari S, Cardone F, Zampieri P, Gelati M, Fiorini M, Farinazzo A, Gardiman M, Cavallaro T, Bentivoglio M, Righetti PG, Pocchiari M, Rizzuto N, Monaco S. Detection of pathologic prion protein in the olfactory epithelium in sporadic Creutzfeldt-Jakob disease N Engl J Med 2003; 348:711-9

**Biochemical characterization of human and animal prion strains by 2D-PAGE analysis**

Zanusso G, Righetti PG, Ferrari S, Terrin L, Farinazzo A, Cardone F, Pocchiari M, Rizzuto N and Monaco S. Biochemical Mapping of Three Phenotype-Associated Isoforms of the Prion Protein in Sporadic Creutzfeldt-Jakob Disease. Electrophoresis 2002; 23:347-355

Zanusso G, Farinazzo A, Prelli F, Fiorini M, Gelati M, Ferrari S, Righetti PG, Rizzuto N, Frangione B, Monaco S. Identification of distinct N-terminal truncated forms of prion protein in different Creutzfeldt-Jakob disease subtypes. J Biol Chem. 2004;279:38936-42

**Identification of bovine sporadic spongiform encephalopathy**

Casalone C \*, Zanusso G \*, Acutis P, Ferrari S, Capucci L, Tagliavini F, Monaco S, Caramelli M. Identification of a second bovine amyloidotic spongiform encephalopathy: Molecular similarities with sporadic Creutzfeldt-Jakob disease. Proc Natl Acad Sci U S A. 2004;101:3065-70

**Experimental transmission of sporadic spongiform encephalopathy**

Lombardi G, Casalone C, D' Angelo A, Gelmetti D, Torcoli G, Barbieri I, Corona C, Fasoli E, Farinazzo A, Fiorini M, Gelati M, Iulini B, Tagliavini F, Ferrari S, Caramelli M, Monaco S, Capucci L, Zanusso G.Intraspecies transmission of BASE induces clinical dullness and amyotrophic changes. PLoS Pathog. 2008;4

**Identification of a novel molecolar phenotype in Creutzfedlt-Jakob disease**

Zanusso G, Polo A, Farinazzo A, Nonno R, Cardone F, Di Bari M, Ferrari S, Principe S, Gelati M, Fasoli E, Fiorini M, Prelli F, Frangione B, Tridente G, Bentivoglio M, Giorgi A, Schinina ME, Maras B, Agrimi U, Rizzuto N, Pocchiari M, Monaco S. Novel prion protein conformation and glycotype in Creutzfeldt-Jakob disease. Arch Neurol. 2007;64:595-9

Galeno R, Di Bari MA, Nonno R, Cardone F, Sbriccoli M, Graziano S, Ingrosso L, Fiorini M, Valanzano A, Pasini G, Poleggi A, Vinci R, Ladogana A, Puopolo M, Monaco S, Agrimi U, Zanusso G, Pocchiari M. Prion Strain Characterization of a Novel Subtype of Creutzfeldt-Jakob Disease.J Virol. 2017;91. pii: e02390-16.

**Intravital diagnosis of sporadic Creutzfeldt-Jakob disease by nasal brushing**

Tabaton M, Monaco S, Cordone MP, Colucci M, Giaccone G, Tagliavini F, Zanusso G. Prion deposition in olfactory biopsy of sporadic Creutzfeldt-Jakob disease. Ann Neurol. 2004;55 :294-6

Christina D. Orrú, Matilde Bongianni, Giovanni Tonoli, Sergio Ferrari, Andrew G. Hughson, , Bradley R. Groveman, Michele Fiorini, Maurizio Pocchiari, Salvatore Monaco, Byron Caughey, and Gianluigi Zanusso. A test for Creutzfeldt-Jakob disease using nasal brushings. N Engl J Med, 2014

Bongianni M, Orrù C, Groveman BR, Sacchetto L, Fiorini M, Tonoli G, Triva G, Capaldi S, Testi S, Ferrari S, Cagnin A, Ladogana A, Poleggi A, Colaizzo E, Tiple D, Vaianella L, Castriciano S, Marchioni D, Hughson AG, Imperiale D, Cattaruzza T, Fabrizi GM, Pocchiari M, Monaco S, Caughey B, Zanusso G. Diagnosis of Human Prion Disease Using Real-Time Quaking-Induced Conversion Testing of Olfactory Mucosa and Cerebrospinal Fluid Samples. JAMA Neurol. 2017;74:155-162.

Redaelli V, Bistaffa E, Zanusso G, Salzano G, Sacchetto L, Rossi M, De Luca CM, Di Bari M, Portaleone SM, Agrimi U, Legname G, Roiter I, Forloni G, Tagliavini F, Moda F. Detection of prion seeding activity in the olfactory mucosa of patients with Fatal Familial Insomnia. Sci Rep. 2017;7:46269.

**RT-QuIC assay**

Orrú CD, Groveman BR, Hughson AG, Zanusso G, Coulthart MB, Caughey B. Rapid and sensitive RT-QuIC detection of human Creutzfeldt-Jakob disease using cerebrospinal fluid. MBio. 2015;6. pii: e02451-14.

Zanusso G, Monaco S, Pocchiari M, Caughey B. Advanced tests for early and accurate diagnosis of Creutzfeldt-Jakob disease. Nat Rev Neurol. 2016;12:325-33.

Groveman BR, Orrú CD, Hughson AG, Bongianni M, Fiorini M, Imperiale D, Ladogana A, Pocchiari M, Zanusso G, Caughey B. Extended and direct evaluation of RT-QuIC assays for Creutzfeldt-Jakob disease diagnosis. Ann Clin Transl Neurol. 2016;4:139-144.

Green AJE, Zanusso G. Prion protein amplification techniques. Handb Clin Neurol. 2018;153:357-370.

**Diagnosis of genetic prion disorder by nasal brushing**

Redaelli V, Bistaffa E, Zanusso G, Salzano G, Sacchetto L, Rossi M, De Luca CM, Di Bari M, Portaleone SM, Agrimi U, Legname G, Roiter I, Forloni G, Tagliavini F, Moda F. Detection of prion seeding activity in the olfactory mucosa of patients with Fatal Familial Insomnia. Sci Rep. 2017;7:46269.

**RT-QuIC assay in neurodegenerative disorders**

Saijo E, Ghetti B, Zanusso G, Oblak A, Furman JL, Diamond MI, Kraus A, Caughey B. Ultrasensitive and selective detection of 3-repeat tau seeding activity in Pick disease brain and cerebrospinal fluid. Acta Neuropathol. 2017;133:751-765.

Kraus A, Saijo E, Metrick MA 2nd, Newell K, Sigurdson CJ, Zanusso G, Ghetti B, Caughey B. Seeding selectivity and ultrasensitive detection of tau aggregate conformers of Alzheimer disease. Acta Neuropathol. 2018 Dec 20.

Groveman BR, Orrù CD, Hughson AG, Raymond LD, Zanusso G, Ghetti B, Campbell KJ, Safar J, Galasko D, Caughey B.Rapid and ultra-sensitive quantitation of disease-associated α-synuclein seeds in brain and cerebrospinal fluid by αSyn RT-QuIC. Acta Neuropathol Commun. 2018;6:7.

Matilde Bongianni, Anna Ladogana, Stefano Capaldi, Annachiara Cagnin, Michele Fiorini, Daniela Perra, Anna Poleggi, Piero Parchi, Giuseppe Legname, Tatiana Cattaruzza, Francesco Janes, Byron Caughey, Massimo Tabaton, Bernardino Ghetti, Salvatore Monaco, Maurizio Pocchiari and Gianluigi Zanusso. Early differential diagnosis of prion- or a-synuclein-related disorders in patients with RPD by RT-QuIC detection of prion and alpha-synuclein seeds in the CSF. Submitted

Verona February 26 2019 Gianluigi Zanusso