

Michele Fiorini
CURRICULUM VITAE

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Education

- 6th May 2005: **Ph.D. in Industrial and Environmental Biotechnology.**
- 27th October 2000: **Degree in Biotechnology** (5 years course) from –University of Verona, Verona, Italy.
- 1994 High-school graduated, Liceo Scientifico Statale, A. Messedaglia, Verona (Italy);

Statement of career

June 2016 – present: Temporary Assistant Professor in the Lab of Neuropathology, Department of Neuroscience, Biomedicine and Movement of the University of Verona (Verona, Italy).
Disciplinary sector: MED/46 - BIOTECHNOLOGY AND METHODS IN LABORATORY MEDICINE

November 2010 – May 2016: Research Scholarship Holders in the Lab of Neuropathology, Department of Neurological and Visual Sciences of the University of Verona (Verona, Italy). Title of research: “Early evaluation of biological markers in dementias”

July 2009 – October 2010: Research Scholarship Holders in the Lab of Neuropathology, Department of Neurological and Visual Sciences of the University of Verona (Verona, Italy). Title of research: “Test set up to determine Brain Type Fatty Acid Binding Protein levels in biological fluids, during acute and chronic neurological diseases”

July 2008 – June 2009: Contract from Department of Neurological and Visual Sciences: “New diagnostic approaches development in transmissible spongiform diseases” in the Lab of Neuropathology, Department of Neurological and Visual Sciences, of the University of Verona (Verona, Italy).

October 2005 - June 2008: Contract from Department of Neurological and Visual Sciences: “Intra-vitam search of –markers in human prion diseases” in the Lab of Neuropathology, Department of Neurological and Visual Sciences, of the University of Verona (Verona, Italy).

January 2005 - September 2005: Contract from Department of Neurological and Visual Sciences: “Immunohistochemical and genetic studies on olfactory mucosa and cerebral tissues of subjects with sporadic Creutzfeld-Jakob disease” in the Lab of Neuropathology, Department of Neurological and Visual Sciences, of the University of Verona (Verona, Italy).

January 2003 - December 2004: Contract from Istituto Superiore di Sanità: “Two –dimensional mapping of Cerebrospinal Liquor” in the Lab of Neuropathology, Department of Neurological and Visual Sciences, of the University of Verona (Verona, Italy).

July 2002 – December 2002: Contract from Department of Neurological and Visual Sciences “BSE and scrapie pathogenesis: neuropathological and immunohistochemical comparative study of Italian BSE and scrapie cases”, University of Verona (Verona, Italy).

July 2001 – June 2002: Contract from Ministero della Sanità: “Scrapie: Application of new diagnostic tests and strain characterization”, in the Lab of Neuropathology, Department of Neurological and Visual Sciences, of the University of Verona (Verona, Italy).

January 2002 – December 2004: PhD student of University of Verona (Verona, Italy).

January 2001 – June 2001: Post-lauream training period in the Lab. of Food Technology, directed by Prof. D.B. Peruffo, Dipartimento Scientifico e Tecnologico, University of Verona (Verona, Italy).

October 1999 – October 2000: Biotechnology agro-industrial Degree Thesis, Dipartimento Scientifico Tecnologico, University of Verona, Verona (Italy).

Research activity

- Protein purification and biochemical characterization (size exclusion chromatography, affinity chromatography, ion exchange chromatography, HPLC);
- Prion diseases (Creutzfeldt-Jakob disease, BSE and Scrapie): molecular characterization (SDS and 2D-PAGE investigations, Western blot) and molecular diagnosis;
- 14-3-3 and A β characterization in neurological diseases (isoform identification and characterization);
- CSF proteomics;

The results of my scientific efforts have been presented at national and international meetings as either oral communications or posters.

Clinical activity

- Molecular diagnosis of dementia: molecular markers screening in cerebrospinal fluid. (14-3-3, A β 1-42, Tau protein, phospho-Tau-181)
- Pathologic prion protein identification in cerebrospinal fluid and olfactory mucosa by Rt-Quic assay;
- Definite prion diagnosis: pathologic prion protein identification in autaptic brain tissue.

Leader for Neuropathology Laboratory for the European external Quality-Control Program in cerebrospinal biomarkers in dementias “The Alzheimer’s Association QC program for CSF biomarkers” coordinate by the Clinical Neurochemistry Laboratory, Sahlgrenska University Hospital, Göteborg/Mölndal, Sweden.

Publications

- Biochemical Characterization of Prions. Fiorini M, Bongiani M, Monaco S, Zanusso G. *Prog Mol Biol Transl Sci*. 2017;150:389-407. doi: 10.1016/bs.pmbts.2017.06.012. Epub 2017 Aug 8.
- Microglial and Neuronal TDP-43 Pathology in Anti-IgLON5-Related Tauopathy. Cagnin A, Mariotto S, Fiorini M, Gaule M, Bonetto N, Tagliapietra M, Buratti E, Zanusso G, Ferrari S, Monaco S. *J Alzheimers Dis*. 2017;59(1):13-20. doi: 10.3233/JAD-170189.
- Prion Strain Characterization of a Novel Subtype of Creutzfeldt-Jakob Disease. 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. *J Virol*. 2017 May 12;91(11). pii: e02390-16. doi: 10.1128/JVI.02390-16. Print 2017 Jun 1.
- Extended and direct evaluation of RT-QuIC assays for Creutzfeldt-Jakob disease diagnosis. Groveman BR, Orrú CD, Hughson AG, Bongiani M, Fiorini M, Imperiale D, Ladogana A, Pocchiari M, Zanusso G, Caughey B. *Ann Clin Transl Neurol*. 2016 Dec 27;4(2):139-144. doi: 10.1002/acn3.378. eCollection 2017 Feb.
- Bongiani 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. (2016). Diagnosis of Human Prion Disease Using Real-Time Quaking-Induced Conversion Testing of Olfactory Mucosa and Cerebrospinal Fluid Samples. *JAMA Neurol*. Dec 12. doi: 10.1001/jamaneurol.2016.4614.
- Costassa Elena Vallino, Fiorini Michele, Zanusso Gianluigi, Peletto Simone, Acutis Pierluigi, Baioni Elisa, Maurella Cristiana, Tagliavini Fabrizio, Catania Marcella, Gallo Marina, Faro Monica, Chieppa Maria Novella, Meloni Daniela, D'Angelo Antonio, Paciello Orlando, Ghidoni Roberta, Tonoli Elisa, Casalone Cristina, Corona Cristiano (2016). Characterization of amyloid- β deposits in bovine brains. *JOURNAL OF ALZHEIMER'S DISEASE*, vol. 51, p. 875-887, ISSN: 1875-8908, doi: 10.3233/JAD-151007
- Zanusso Gianluigi, Camporese Giulia, Ferrari Sergio, Santelli Luca, Bongiani Matilde, Fiorini Michele, Monaco Salvatore, Manara Renzo, Cagnin Annachiara (2016). Long-term preclinical MRI alterations in sporadic Creutzfeldt-Jakob disease. *ANNALS OF NEUROLOGY*, vol. 80, p. 629-632, ISSN: 0364-5134, doi: 10.1002/ana.24757
- Orrù C.D., Bongiani M., Tonoli G., Ferrari S., Hughson A.G., Groveman B.R., Fiorini M., Pocchiari M., Monaco S., Caughey B., Zanusso G. (2014). A test for Creutzfeldt-Jakob disease using nasal brushings.. *NEW ENGLAND JOURNAL OF MEDICINE*, vol. 371, p. 519-529, ISSN: 0028-4793, doi: 10.1056/NEJMoa1315200
- Zanusso G., Fiorini M., Ferrari S., Meade-White K., Barbieri I., Brocchi E., Ghetti B., Monaco S. (2014). Gerstmann-Straussler-Scheinker disease and "anchorless Prion Protein" mice share prion conformational properties diverging from sporadic Creutzfeldt-Jakob disease. *THE JOURNAL OF BIOLOGICAL CHEMISTRY*, vol. 289, p. 4870-4881, ISSN: 0021-9258, doi: 10.1074/jbc.M113.531335
- Tagliapietra M., Zanusso G., Fiorini M., Bonetto N., Zarantonello G., Zambon A., Ermani M., Monaco S., Manara R., Cagnin A. (2013). Accuracy of diagnostic criteria for sporadic Creutzfeldt-Jakob disease among rapidly progressive dementia.. *JOURNAL OF ALZHEIMER'S DISEASE*, vol. 34, p. 231-238, ISSN: 1387-2877, doi: 10.3233/JAD-121873
- Zanier E.R., Zoerle T., Fiorini M., Longhi L., Cracco L., Bersano A., Branca V., Benedetti M.D., De Simoni M.G., Monaco S., Stocchetti N. (2013). Heart-fatty acid-binding and tau proteins relate to brain injury severity and long-term outcome in subarachnoid haemorrhage patients.. *BRITISH JOURNAL OF ANAESTHESIA*, vol. 111, p. 424-432, ISSN: 0007-0912, doi: 10.1093/bja/aet149

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- Bertolasi L., Acler M., Dall'Ora E., Gajofatto A., Frasson E., Tocco P., Turri M., Ferlisi M., Fiorini M., Pimazzoni F., Squintani G., Martini M., Danzi B., Monaco S. (2012). Risk factors for post-polio syndrome among an Italian population: a case-control study.. NEUROLOGICAL SCIENCES, vol. 33, p. 1271-1275, ISSN: 1590-3478, doi: 10.1007/s10072-012-0931-2
- Zanusso G., Fiorini M., Ferrari S., Gajofatto A., Cagnin A., Galassi A., Richelli S., Monaco S. (2011). Cerebrospinal fluid markers in sporadic Creutzfeldt-Jakob disease.. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol. 12, p. 6281-6292, ISSN: 1422-0067, doi: 10.3390/ijms12096281
- Gajofatto A., Monaco S., Fiorini M., Zanusso G., Vedovello M., Rossi F., Turatti M., Benedetti M.D. (2010). Assessment of outcome predictors in first-episode acute myelitis: a retrospective study of 53 cases.. ARCHIVES OF NEUROLOGY, vol. 67, p. 724-730, ISSN: 0003-9942, doi: 10.1001/archneurol.2010.107
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- Fiorini M., Zanusso G., Benedetti M.D., Righetti P.G., Monaco S. (2007). Cerebrospinal fluid biomarkers in clinically isolated syndromes and multiple sclerosis. PROTEOMICS. CLINICAL APPLICATIONS, vol. 1, p. 963-971, ISSN: 1862-8346, doi: 10.1002/prca.200700091
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- FIORINI M., ZANUSSO G., BAJ A., BERTOLASI L., TONIOLO A., MONACO S. (2007). Post-polio syndrome: clinical manifestations and cerebrospinal fluid markers. FUTURE NEUROLOGY, vol. 2, p. 451-463, ISSN: 1479-6708
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- PIUBELLI C, FIORINI M, ZANUSSO G, MILLI A, FASOLI E, MONACO S, RIGHETTI PG (2006). Searching for markers of Creutzfeldt-Jakob disease in cerebrospinal fluid by two-dimensional mapping.. PROTEOMICS, vol. 6 Suppl. 1, p. S256-S261, ISSN: 1615-9853
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- Zanusso G., Ferrari S., Cardone F., Zampieri P., Gelati M., Fiorini M., Farinazzo A., Gardiman M., Cavallaro T., Bentivoglio M., Righetti P.G., Pocchiari M., Rizzuto N., Monaco S. (2003). Detection of pathologic prion protein in the olfactory epithelium in sporadic Creutzfeldt-Jakob disease. NEW ENGLAND JOURNAL OF MEDICINE, vol. 348, p. 711-719, ISSN: 0028-4793, doi: 10.1056/NEJMoa022043
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- ZANUSSO G, FARINAZZO A, FIORINI M, GELATI M, CASTAGNA A, RIGHETTI PG, RIZZUTO N, MONACO S (2001). pH-dependent prion protein conformation in classical Creutzfeldt-Jakob disease. THE JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 276, p. 40377-40380, ISSN: 0021-9258