

Personal information

Surname(s) / First name(s)

Moda Fabio

Home address(es)

Mobile phone

Occupation fields

- Neurodegenerative diseases
- Clinical neuroscience
- Translational and molecular research focused on neurological disorders
- Laboratory diagnosis in neurodegenerative diseases
- Development of ultrasensitive tests for detecting peripheral biomarkers associated with neurodegenerative diseases

Work and research experiences

Period

September 2013 - present

Occupation or position held

Health Research Scientist/Senior Researcher at **Fondazione IRCCS Istituto Neurologico Carlo Besta**, laboratory of Neuropathology (Division of Neurology 5 and Neuropathology) 20133 Milan, Italy.

Main activities and responsibilities

- Responsible for the BSL3 laboratory (diagnostic and research activities);
- Involved in the standard laboratory tests (mainly performed on cerebrospinal fluids) for the diagnosis of neurodegenerative diseases;
- Coordinator of a research group whose activities are mainly related to the development of early diagnostic tests using cerebrospinal fluid, olfactory mucosa, blood, skin, tears and urine samples collected from patients with different types of neurodegenerative diseases (Alzheimer's disease, Lewy body dementia, Frontotemporal dementia, Parkinson's disease and related parkinsonisms, prion diseases) with full scientific and financial responsibility;
- Coordinator of national and international funded projects (Italian Ministry of Health, Michael J. Fox Foundation, Alzheimer's Association, The Association for Frontotemporal Degeneration).
- Supervisor of post-doc, PhD and MSc students

Period	September 2011 - August 2013
Occupation or position held	Post-doctoral researcher at the University of Texas Health Science Center at Houston (UTHSC-Houston). Department of Neurology. George P. and Cynthia W. Mitchell Center for Research in Alzheimer's Disease and Related Brain Disorders. Protein Misfolding Disorders Laboratory, Houston, TX 77030. USA.
Main activities and responsibilities	- Manager of the BSL3 laboratory at UTHSC (Medical School); - Optimization of highly innovative techniques (e.g. Protein Misfolding Cyclic Amplification and Real-Time Quaking-Induced Conversion) for the development of early diagnostic tests for Creutzfeldt-Jakob disease (CJD) using cerebrospinal fluids or other peripheral tissues (e.g. urine and blood); - Biochemical and histological characterization of human and animal prion strains; - Evaluation of the role of stroke and Traumatic Brain Injury (TBI) as risk factors for Alzheimer's disease.
Period	January 2011 - September 2011
Occupation or position held	Researcher at Fondazione IRCCS Istituto Neurologico Carlo Besta , laboratory of Neuropathology (Division of Neurology 5 and Neuropathology) 20133 Milan, Italy.
Main activities and responsibilities	- Preclinical therapeutic approaches (based on gene therapy and nanomedicine) to prion diseases in mouse models; - Transmission studies of prions and other amyloidogenic proteins (amyloid-β, tau) to transgenic mice; - Diagnosis of human prion diseases based on biochemical and neuropathological analyses of the central nervous tissues collected at autopsy from diseased patients.
Period	January 2008 - December 2010
Occupation or position held	PhD in Translational and Molecular Medicine (DIMET) at Fondazione IRCCS Istituto Neurologico Carlo Besta , laboratory of Neuropathology (Division of Neurology 5 and Neuropathology) 20133 Milan, Italy. PhD project title: "Engineered Adeno-Associated-Viruses expressing anti-PrP molecules and Polyelectrolyte Gold Nanoparticles as new therapeutic strategies for prion diseases in mouse models". Tutor: Dr. Fabrizio Tagliavini.
Main activities and responsibilities	a. Assessment of preclinical therapeutic approaches to prion diseases in mouse models - Evaluation of gene therapy approaches based on the use of engineered Adeno-Associated-Viruses (AAVs) expressing anti-PrP (prion protein) single chain variable fragment (scFv) antibodies; - Evaluation of Nanomedicine-based approaches based on the use of polyelectrolyte covered gold nanoparticles (AuNPs); - Evaluation of therapeutic approaches based on the use of humic acids (orally administered); - Animals handling, monitoring, treatment, surgery and necroscopy

(anaesthesia, stereotaxical AAVs/prions inoculation in detailed brain areas and tail vein injection of nanogold particles) monitoring (specific behavioural test during disease progression) and necroscopy (intracardiac perfusion and organs collection);

- Biochemical and histological analysis of human and mouse tissues;
- Neuropathological analysis of mouse brains;
- Collaboration with the Department of Neurobiology at the **International School for Advanced Studies (SISSA/ISAS)** of Trieste (Italy) for *in vitro* experiments; Department of Molecular Medicine at the **International Centre for Genetic Engineering and Biotechnology (ICGEB)** of Trieste (Italy) for AAVs production; Department of NanoDiagnostic at the **Cluster in Biomedicine (CBM)** of Trieste (Italy) for gold nanoparticles production; **European Centre for Nanomedicine** at “Carlo Besta” Neurological Institute (Italy) for nanoparticles studies; **Consiglio per la Ricerca e la sperimentazione in Agricoltura (CRA)** of Trieste (Italy) for humic acids production.

b. Evaluation of the transmissibility of neurodegenerative diseases to transgenic mice

- Involved in the study of vCJD and FTD (Frontotemporal dementia) transmission to transgenic mice expressing human tau protein with P301L mutation;
- Involved in research experiments focused on the study of the susceptibility of transgenic mice expressing human (TgHu) or bovine (TgbovXV) PrP to different prion strains (sCJD/vCJD, BSE and BASE);
- Involved in research studies concerning the role of the protease inhibitor “Cystatin C” on prion propagation in transgenic mice overexpressing human Cys-C;
- Involved in research experiments focused on the study of the ability of different therapeutic approaches to modify Alzheimer disease pathology in transgenic mice overexpressing human APP protein.

c. Diagnostic activities on post-mortem human tissues

- Diagnostic confirmation of human prion diseases based on biochemical and neuropathological analyses of the central nervous tissues collected at autopsy from diseased patients.

Period	January 2007 - January 2008
Occupation or position held	Researcher at Fondazione IRCCS Istituto Neurologico Carlo Besta , laboratory of Neuropathology (Division of Neurology 5 and Neuropathology) 20133 Milan, Italy
Main activities and responsibilities	- research assistant

Education and training

Date	December 2018 – December 2022
Title of qualification	Specialization in Clinical Pathology and Clinical Biochemistry , Pavia University, Via Forlanini 8, 27100 Pavia (Italy) Final score: 50/50 cum laude and commendation Tutor: Dr. Giorgio Giaccone, Department of Neurology 5 and Neuropathology - Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan (Italy)
Date	May 2019 – May 2028
Title of qualification	National Scientific Qualification to function as Associate Professor in General Biochemistry (BIO/10)
Date	October 2018 – October 2027
Title of qualification	- National Scientific Qualification to function as Associate Professor in Clinical Biochemistry and Clinical Molecular Biology (BIO/12) - National Scientific Qualification to function as Associate Professor in Sciences of Health Professions and Applied Medicals Technologies (MED/46)
Date	March 2016
Title of qualification	Registered in the National Council of Biologists , Section A (ID number AA_075317). State Exam successfully completed at Università degli Studi dell'Insubria in June 2015. Score 179/200
Date	January 2008 - December 2010
Title of qualification	PhD in "Translational and Molecular Medicine" (DIMET) at Milano-Bicocca University, Via Cadore 48, 20052 Monza (Milan) and related experimental activities at Carlo Besta Neurological Institute, 20133 Milan, Italy. Final score: cum laude Tutor: Dr. Fabrizio Tagliavini, Department of Neurology 5 and Neuropathology
Date	October 2004 - October 2006
Title of qualification	MSc in Medical Biotechnologies and Molecular Medicine at University of Milan. Score: 103/110 Internship at Institute of Legal Medicine, Via Mangiagalli 37, 20133 Milan. Tutors: Andrea Piccinini, Department of Forensic Genetic and Haematology and Antonella Lazzaro, Department of Forensic Histopathology.
Date	October 2001 - July 2004
Title of qualification	Bachelor in Medical Biotechnology at University of Milan. Score: 104/110. Internship at Desio Hospital, via Mazzini 1, 20033 Milan. Advisor: Dr. Laura Colombo, Division of nephrology and dialysis.
Date	September 1996 - July 2001

Title of qualification

High school "I.T.I.S. Magistri Cumacini", Mariano Comense (Como) final certificate, obtained in July 2001. Score 77/100

Personal skills and competence

Mother tongue

Italian

Other language(s)
Self-assessment

English

French

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1
A1	A2	A2	A2	A2

Common European Framework of Reference (CEF) level

Social skills and
competence

Often involved with different team tasks, in particular promoting collaboration with other research groups;
First aid provider with regional certification obtained in October 2005;
Authorized to use the External Automatic Defibrillator (AED) for cardiopulmonary resuscitation (ILCOR guidelines 2005);
Director of Carlo Besta Institute Choir "Ida Milanesi".

Organizational skills and
competence

Independent, able to promote multidisciplinary-collaborations and work in team. Supervisor of MSc, PhD and post-graduate students and able to write research proposal, papers, book chapters, data reports.

Computer skills and
competence

- European Computer Drive Licence (ECDL) obtained in May 2002 (see attachment B1);
- Experienced with the use of Microsoft Office (Word, Power Point, Excel);
- Experienced with the use of programs for data analysis (GraphPad and NisElements);
- Experienced with the use of Adobe PhotoShop and Acrobat Reader;
- Proficient in using Internet Explorer and skilled with the use of PubMed, OVID, Sbbi and MedLine.

Employed laboratory techniques

Histology

- Practiced in several histological procedures (fixation, dehydration, inclusion) for the analysis of human and animal tissues (mouse, hamster, dog);
- Able to cut paraffin embedded tissues with rotative and sledge microtomes;
- Expert in histochemical and immunohistochemical techniques;
- Microscopic identification of the principal neuropathological alterations associated with different neurodegenerative diseases (e.g. prion,

Alzheimer and Parkinson's disease);
- Able to use optical, fluorescent and confocal microscopes.

Biochemistry

- Tissue homogenization;
- Protein purification and quantification (BCA);
- SDS-PAGE;
- Western blot;
- Immunohistoblot;
- Dot blot;
- Protein Misfolding Cycling Amplification (PMCA);
- Real Time Quaking-Induced Conversion (RT-QuIC);
- Sandwich ELISA.

Molecular biology

- DNA extraction from fresh tissues;
- PCR;
- DNA purification and enzymatic digestion.

Animals handling

- Intraperitoneal and gas anesthesia procedures (mouse and hamster);
- Behavioural tests (mouse): object recognition, barnes maze;
- GAVAGE, gastric administration (mouse);
- Intracardiac perfusion (mouse and hamster);
- Blood collection (mouse and hamster);
- Stereotaxical inoculation in detailed brain regions (mouse);
- Necroscopy and relative organs collection (mouse and hamster).

Transmission Electron Microscopy

- Preparation of samples for TEM analysis and observation

Courses and workshop attendance

- "Grant writing – Advanced Course" 13rd June – 16th September 2022. Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan (Italy);
- "Corso per l'abilitazione al prelievo di sangue venoso" 5th May – 31st July 2022. Università degli Studi di Milano (Italy);
- "Formazione aggiuntiva preposti: corso base". Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan (Italy). Virtual Edition;
- "Elementi base per l'approccio dei ricercatori all'utilizzo degli animali ai fini scientifici – (Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna). 5th October – 30 November 2021. Virtual edition;
- "Postdoctoral Certificate Training Program" September 8th, 2011 – July 31st, 2011. University of Texas at Houston (USA);
- "Animal training course" September 14th – October 11st 2011. University of Texas Health Science Center at Houston (USA);
- "Introductory PhD course in translational medicine" November 8th - 12nd 2010. Istituto di Ricerche Farmacologiche Mario Negri, Milan

(Italy);

- "Workshop on the epidemiology of human and animal TSEs" April 30th 2010. Torino (Italy);
- "Corso introduttivo alla sperimentazione animale indirizzato a ricercatori e personale impiegato nella sperimentazione animale" February 23rd – March 25th 2010. Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna, Milan (Italy);
- "3rd International Workshop SISSA/ELETTRA PRION research workshop" January 11th 2010. Scuola Internazionale Superiore di Studi Avanzati, Trieste (Italy);
- "Rischio da gas anestetici per uso sperimentale su animali: operare in sicurezza" July 14th 2009. Milan (Italy);
- "Human and animal TSE" June 26th-28th 2008. Grado (Italy);
- "Italian MRI/MRS users' meeting" June 25th 2008. Milan (Italy);
- "Basic Course of Neuropathology" organized by EURO-CNS March 10th-14th 2008. Aachen (Germany);
- "Strumenti di ricerca dell'informazione biomedica in formato elettronico attraverso il sistema bibliotecario biomedico lombardo (SBBL)" February 21th 2007. Milan (Italy).

Annexes of CV

Posters and oral communications

- 1- **Moda F.**, Lovisolo A., De Giorgio B., Lazzaro A., Gentile G., Cattaneo C., Piccinini A.: "*Protocollo operativo per lo studio della correlazione tra analisi istomorfologica del tessuto osseo e analisi genetico-identificativa*". XXI Convegno Nazionale GeFI (Gruppo Genetisti Forensi Italiani) September 5-7th 2006, Lipari (Italy). Poster presentation.
- 2- Molteni R., Gentile G., Lazzaro A., **Moda F.**, Roselli M. R., Sangiorgio P., Taborelli A.: "*Su due casi di morte improvvisa del giovane adulto con riscontro di cardiomiopatia aritmogena del ventricolo destro (ARVC)*". V Congresso Nazionale COMLAS (Coordinamento dei Medici Legali delle Aziende Sanitarie) November 8-11th 2006, Genova (Italy). Oral communication.
- 3- Molteni R., Gentile G., Lazzaro A., **Moda F.**, Roselli M. R., Taborelli A.: "*Il rischio infettivo da cadavere: riconoscimento e protezione*". V Congresso Nazionale COMLAS (Coordinamento dei Medici Legali delle Aziende Sanitarie) November 8-11th 2006, Genova (Italy). Poster presentation.
- 4- Arcari V. E., Gentile G., Lazzaro A., **Moda F.**, Molteni R., Roselli M. R., Taborelli A.: "*Segnalazione di due casi di SIDS con reperto istomorfologico indicativo di funzionalità cardiorespiratoria*". V Congresso Nazionale COMLAS (Coordinamento dei Medici Legali delle Aziende Sanitarie) November 8-11th 2006, Genova (Italy). Poster presentation.
- 5- Molteni R., Gentile G., Lazzaro A., **Moda F.**, Roselli M. R., Taborelli A.: "*Diagnosi post-mortem di meningite batterica in soggetto adulto*". V Congresso Nazionale COMLAS (Coordinamento dei Medici Legali delle Aziende Sanitarie) November 8-11th 2006, Genova (Italy). Poster presentation.
- 6- Limido L., Mangieri M., Capobianco R., **Moda F.**, Vimercati C., Campagnani I., Catania M., Ghetti B., Giaccone G., Levy E., Tagliavini F.: "*Role of cystatin C in prion propagation and prion disease pathogenesis*".

- International Congress NeuroPrion, September 26-28th 2007, Edinburgh (Scotland). Poster presentation;
 - XLIII Congresso Nazionale AINP (Associazione Italiana NeuroPatologia) September 30th – October 3rd 2007, Verona (Italy). Abstract published in Clinical Neuropathology 26 (5):253; 2007. Poster presentation.
- 7- Campagnani I., Vimercati C., Ruggerone M., **Moda F.**, Suardi S., Bishop M., Manson J., Tagliavini F.: *“Experimental transmission of sporadic CJD variants to transgenic mice expressing human PrP with different codon 129 genotype”*. XLV Congresso nazionale AINP e XXXV congresso AIRIC” June 3-6th 2009, Bologna (Italy). Abstract published in Clinical Neuropathology 28 (3): 223; 2009. Poster presentation.
 - 8- **Moda F.**, Legname G., Zentilin L., Giacca M., Vimercati C., Suardi S., Campagnani I., Ruggerone M., Tagliavini F.: *“Engineered Adeno-Associated-Viruses as new therapeutic strategy for prion disease”*.
 - XLV Congresso AINP e XXXV congresso AIRIC June 3-6th 2009, Bologna (Italy). Abstract published in Clinical Neuropathology 28 (3):235; 2009. Oral Communication;
 - International Congress Neuroprion, September 23-25th 2009, Tessaonica (Greece). Poster presentation.
 - 9- Ai Tran H.N., Sousa F., Mandal S., **Moda F.**, Tagliavini F., Krol S. and Legname G.: *“Inhibition of scrapie prion replication by polyelectrolyte nanogold particles”*. International Congress Neuroprion, September 23-25th 2009, Tessaonica (Greece). Poster presentation.
 - 10- Koren S., Kosmač M., Vranac T., **Moda F.**, Suardi S., Bresjanac M., Giachin G., Gennaro R., Tagliavini F., Legname G., Šerbec V.: *“Discrimination between prion-infected and normal brain with monoclonal antibodies specific for C-terminally truncated PrP fragment”*. International Congress Neuroprion, September 23-25th 2009, Tessaonica (Greece). Poster presentation.
 - 11- Suardi S., Vimercati C., **Moda F.**, Ruggerone M., Campagnani I., Lombardi G., Capucci L., Groschup M.H., Buchmann A., Casalone C., Caramelli M., Monaco S., Zanusso G., Tagliavini F.: *“Infectivity in skeletal muscle of BASE-infected cattle”*. International Congress Neuroprion, September 23-25th 2009, Tessaonica (Greece). Poster presentation.
 - 12- **Moda F.**, Legname G., Krol S., Campagnani I., Ruggerone I., Vimercati C., Zentilin L., Giacca M., Sousa F., Morbin M., Giaccone G., Tagliavini F.: *“Engineered Adeno-Associated Viruses and Polyelectrolyte Gold Nanoparticles as new therapeutic approaches for prion disease”*. 3rd International Workshop SISSA/ELETTRA PRION research workshop, January 11th 2010, Trieste (Italy). Oral Communication.
 - 13- Koren S., Kosmac M., Giachin C., **Moda F.**, Gennaro R., Bresjanac M., Tagliavini F., Legname G., Šerbec V.C.: *“Monoclonal antibodies that discriminate between prion-infected and normal brain tissue are specific for a C-terminally truncated prion protein fragment”*. 3rd International Workshop SISSA/ELETTRA PRION research workshop. January 11th 2010, Trieste (Italy). Poster presentation.
 - 14- Giaccone G., Botta M., Di Fede G., **Moda F.**, Catania M., Morbin M., Tagliavini F.: *“Familial Alzheimer’s disease associated with the A673V APP recessive mutation presents a distinctive neuropathological phenotype”*.
 - XLVI Congresso AINP e XXXVI congresso AIRIC. May 23-25th 2010, Squillace (Italy). Poster presentation
 - XVIIth International Congress of Neuropathology ICN. September 11-15th 2010, Salzburg (Austria). Abstract published in Brain Pathology, 20 (Suppl 1) 21, 2010.
 - 15- **Moda F.**, Giaccone G., Di Fede G., Terruzzi A., Suardi S., Tagliavini F.: *“Neuropathological and biochemical characterization of unusual cases of Creutzfeldt-Jakob disease in young, PRNP 129MM subjects”*. International Congress Neuroprion September 8-11th 2010, Salzburg (Austria). Abstract published in Prion, 4(3); 2010. Poster presentation.

- 16- Ai H-N. Tran*, Sousa F.*, **Moda F.***, Mandal S., Chanana M., Vimercati C., Ruggerone M., Campagnani I., Morbin M., Krol S., Tagliavini F. and Legname G.: "*Coated nanogolds as novel potent anti-prion compounds*". (* these authors equally contributed to the work). International Congress Neuropion September 8-11th 2010, Salzburg (Austria). Abstract published in Prion, 4(3): 210, 2010. Poster presentation
- 17- **Moda F.**, Vimercati C., Campagnani I., Ruggerone M., Zentilin L., Giacca M., Krol S., Sousa F., Morbin M., Giaccone G., Legname G., Tagliavini F.: "*Engineered Adeno-Associated Viruses expressing anti-PrP molecules and polyelectrolyte gold nanoparticles as new therapeutic strategies for prion diseases in mouse models*". 4th International Workshop SISSA/ELETTRA PRION research workshop, January 10th 2011, Trieste (Italy). Oral Communication
- 18- Moro M.L., Catania M., Di Fede G., **Moda F.**, Viscomi A.R., Colombo L., Uggetti A., Giaccone G., Morbin M., Salmona M., Tagliavini F.: "*Distinctive Oligomeric Profile of the Recessive A673V APP Mutation*". 10th International Congress on Alzheimer's and Parkinson's disease (AD/PD). March 9-13th 2011, Barcelona (Spain). Poster presentation.
- 19- Di Fede G., Catania M., Moro M.L., Ghidoni R., Albertini V., Giaccone G., Morbin M., Uggetti A., **Moda F.**, Salmona M., Tagliavini F.: "*Recessive A673V APP Mutation: Central Role of Mutant A β 1-40 in Oligomerization and Amyloidogenesis*". International Congress". 10th International Congress on Alzheimer's and Parkinson's disease (AD/PD). March 9-13th 2011, Barcelona (Spain). Poster presentation.
- 20- Brunetti D., Dusi S., **Moda F.**, Uggetti A., Lamperti C., Tsujimoto Y., Morbin M., Tiranti V.: "*Ketogenic diet accelerates the onset of disease in a PLA2G6 KO mouse model*". European Human Genetics Conference. May 28-31st 2011, Amsterdam (Netherlands). Poster presentation.
- 21- Marcon G., Giaccone G., Indaco A., Moro M. **Moda F.**, Cupidi C., Bruni A., Demarchi A., Bogdanovic N., Ghetti B., Tagliavini F.: "*Alzheimer disease: APP mutations are associated with high percentage of cerebral amyloid deposits containing A β 40*". XLVII Congresso AINP e XXXVII congresso AIRIC. May 19-21st 2011, Genova (Italy). Poster presentation.
- 22- **Moda F.**, Giaccone G., Di Fede G., Terruzzi A., Fociani P., Suardi S., Tagliavini F.: "*Widening the spectrum of MM2-thalamic form of Creutzfeldt Jakob Disease*". XLVII Congresso AINP e XXXVII congresso AIRIC. May 19-21st 2011, Genova (Italy). Poster presentation.
- 23- **Moda F.**, Vimercati C., Campagnani I., Ruggerone M., Morbin M., Giaccone G., Zentilin L., Giacca M., Legname G., Tagliavini F.: "*Brain delivery of AAV9 expressing anti-PrP molecules delays prion disease onset in mice*". International Congress Prion2011 May 16-19th 2011, Montreal (Canada). Abstract published in Prion, 5: 135, 2011. Poster presentation. (Poster prize winner)
- 24- Brunetti D., Dusi S., **Moda F.**, Uggetti A., Lamperti C., Tsujimoto Y., Morbin M., Tiranti V.: "*Ketogenic diet accelerates the onset of disease in a PLA2G6 KO mouse model*". V Meeting on the Molecular Mechanisms of Neurodegeneration. May 13-15th, 2011, Milan (Italy). Poster presentation.
- 25- Brunetti D., Dusi S., **Moda F.**, Uggetti A., Morbin M., Hayflick S., Tiranti V.: "*Pantothenate kinase-associated neurodegeneration: further investigations of a PANK2 KO mouse model*". European Meeting mitochondrial pathology (EUROMIT.8) June 20-23rd 2011, Zaragoza (Spain). Poster presentation.
- 26- Tran A.H.N., Le T.T.N., **Moda F.**, Zucca P., Tagliavini F., Gustincich S., Legname G.: "*Human α -synuclein fibrils induce α -synuclein aggregation in vitro and behavioral alterations in vivo upon inoculation in wildtype mice*". XIX World Congress on Parkinson's Disease and Related Disorders. December 11-14th 2011, Shanghai (China). Poster presentation
- 27- Ruggerone M., Suardi S., **Moda F.**, Campagnani I., Vimercati C., Fociani P., Bishop M.T., Will R.G., Manson J.C., Giaccone G., Tagliavini F.: "*Transmission studies of a mixed MV sporadic Creutzfeldt-Jakob disease in transgenic mice models*". International Congress Prion2012 May 9-12th 2012, Amsterdam (Netherlands). Abstract published in Prion. Poster presentation

- 28- Suardi S., **Moda F.**, Di Fede G., Indaco A., Ruggerone M., Campagnani I., Langeveld J., Terruzzi A., Brambilla A., Zerbi P., Fociani P., Bishop M.T., Will R.G., Manson J.C., Giaccone G., Tagliavini F.: *"MM2-thalamic Creutzfeldt-Jakob disease: neuropathological, biochemical and transmission studies identify a distinctive prion strain"*. International Congress Prion2012 May 9-12th 2012, Amsterdam (Netherlands). Abstract published in Prion. Poster presentation
- 29- Di Fede G., Catania M., Giaccone G., Ghidoni R., Albertini V., **Moda F.**, Kubis A., Moro ML., Ruggerone M., Tagliavini F.: *"Phenotypic heterogeneity of Alzheimer's disease: towards the identification of molecular determinants underlying distinct clinico-pathological subgroups"*. VII Congresso Sindem, Italian Society for the study of Dementia. March 22-24th 2012, Naples (Italy). Poster presentation.
- 30- Di Fede G., Ghidoni R., Catania M., Giaccone G., Benussi L., **Moda F.**, Gobbi M., Moro ML., Kubis A., Ruggerone M., Ghetti B., Binetti G., Salmona M., Tagliavini F.: *"Phenotypic heterogeneity of Alzheimer's disease: towards the identification of molecular determinants underlying distinct clinico-pathological subgroups"*. Alzheimer's Association International Conference (AAIC). July 14-19th 2012, Vancouver (Canada). Poster presentation
- 31- Tagliavini F., Di Fede G., Catania M., **Moda F.**, Kubis A., Maderna E., Ruggerone M., Giaccone G., Morbin M., Moro M., Ghidoni R., Albertini V., Ghetti B.: *"Phenotypic Heterogeneity of Alzheimer Disease Is Paralleled by Differences in A β Species Profile and Propagation of Amyloidosis in Animal Models"*. International Congress". 11st International Congress on Alzheimer's and Parkinson's disease (AD/PD). March 6-10th 2013, Florence (Italy). Poster presentation.
- 32- Tran Thanh NL., Hoang Ngoc AT., Aulic S., **Moda F.**, Zucca P., Tagliavini F., Gustincich S., Legname G.: *"Parkinson's Disease as Prion Disorder"*. International Congress". 11st International Congress on Alzheimer's and Parkinson's disease (AD/PD). March 6-10th 2013, Florence (Italy). Poster presentation.
- 33- **Moda F.**, Notari S., Gambetti P., Fugnanesi V., Park KW., Morbin M., Suardi S., Tagliavini F., Soto C.: *"Prion detection in urine of patients with variant Creutzfeldt-Jakob disease"*. International Congress Prion2013 May 26-29th 2013, Banff (Canada). Abstract published in Prion, vol 7 (suppl): 15; 2013. Oral communication
- 34- Pritzkow S., Morales R., **Moda F.**, Soto C.: *"Prion-contaminated plants can transmit prion disease"*. International Congress Prion2013 May 26-29th 2013, Banff (Canada). Abstract published in Prion, vol 7 (suppl): 15; 2013. Poster presentation
- 35- Tran Thanh NL., Hoang Ngoc AT., Aulic S., **Moda F.**, Zucca P., Tagliavini F., Gustincich S., Legname G.: *"Synthetic human α -synuclein prions"*. International Congress Prion2013 May 26-29th 2013, Banff (Canada). Abstract published in Prion, vol 7 (suppl): 15; 2013. Oral communication
- 36- Di FedeG., Diomedede L., Catania M., Maderna E., **Moda F.**, Ruggerone M., Romeo M., Morbin M., Palamara L., Campagnani I., Colombo L., Rossi A., Cagnotto A., Messa M., De Luigi A., Mancini S., Stravalaci M., Gobbi M., Borsello T., Salmona M., Tagliavini F.: *"Targeting β -amyloid by the A2V A β variant: a novel disease-modifying strategy for the treatment of Alzheimer's disease"*. XI National Conference SINDEM March 13-15th 2014, Florence (Italy). Oral communication
- 37- Armijo E., Edwards III G., **Moda F.**, Flores A., Gonzalez C., Soto C.: *"Induced pluripotent stem cells-derived neuronal precursors improves behavior and pathology in a mouse model of Alzheimer's disease"*. Keystone Symposia on molecular and cellular biology April 6-11st 2014, California (USA). Poster presentation
- 38- **Moda F.**, Gambetti P., Catania M., Concha Marambio L.M., Maderna E., Notari S., Park K-W., Pan I., Haik S., Brandel J.P., Ironside J., Knight R., Suardi S., Tagliavini F., Soto C.: *"Prion detection in urine of patients with variant Creutzfeldt-Jakob disease: an update"*. International Congress Prion2014 May 27-30th 2014, Trieste (Italy). Abstract published in Prion, vol 4 (suppl): 23; 2014. Oral communication

- 39- **Moda F.**, Suardi S., Giaccone G.: "*Malattia di Creutzfeldt-Jakob: test diagnostici ultrasensibili su liquidi biologici e tessuti periferici. Prospettive per altre malattie neurodegenerative*". Convegno Besta 3.0 May 12-14th 2014, Milan (Italy). Poster presentation
- 40- Barbisin M., Vanni S., **Moda F.**, Virgilio T., Tagliavini F., Legname G.: "Validation of a novel disease gene signature in CJD brains". International Congress AD/PD March 18-22nd 2015, Nice (France). Poster presentation
- 41- **Moda F.**, Le N.T.T., Virgilio T., Mazzetti S., Aulić S., Palamara L., Campagnani I., Andréoletti O., Tagliavini F., Legname G.: "*Distinct neuropathological alterations produced by a synthetic prion strain de novo generated in vitro: conformational instability before adaptation*". International Congress Prion2015 May 26-29th 2015, Abstract published in Prion 2015; 9(sup1): S11–S99.
- 42- Figini M., Scotti A., Zucca I., Maderna E., Ruggerone M., Catania M., Di Fede G., **Moda F.**, Tagliavini F., Bruzzone M.G.: "*Mean diffusivity as a non-invasive biomarker of the amount of amyloid plaques in Alzheimer's disease: a preliminary evaluation in a mouse model*". 23rd Annual Meeting & Exhibition, International Society for Magnetic Resonance in Medicine. 30 May – 5 June 2015, Toronto (Canada). Poster presentation.
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- 53- Giuseppe G., Bistaffa E., **Moda F.**: "Synthetic prions: success and contention". Asian Pacific Prion Symposium (APPS), October 20-21st 2017 Melbourne (Australia). Oral communication
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- 92- Ciullini A., Consonni A., Farris C.M., Dellarole I.L., De Luca C.M.G., Portaleone S.M.S., Puleo E., Miglietti M., Bufano G., Cazzaniga F.A., Elia A.E., Didato G., Felisati G., Barletta M., Adina S.D., Lombardo A., Concha-Marambio L., Ma Y., Nguyen H., Tramacere I., Legname G., Giaccone G., Baggi F., **Moda F.**: "Combined analyses of peripheral tissues collected from patients with Parkinson's

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 - 99- De Lorenzo A., Verde F., Maranzano A., Morelli C., Messina S., PAtisso V., Gendarini C., Treddenti M., Giaccone G., Brusafferri F., Tiraboschi P., **Moda F.**, Caputi L., Di Fede G., Silani V., Ticozzi N.: "Persistent hypersomnia and very slow progression: an atypical case of sporadic Creutzfeldt-Jakob disease". 53° Congresso SIN, October 21-24th 2023 Napoli (Italy). Oral Communication
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- 69- Rossi G., Salvi E., Mehmeti E., Ricci M., Villa C., Prioni S., **Moda F.**, Di Fede G., Tiraboschi P., Redaelli V., Coppola C., Koch G., Canu E., Filippi M., Agosta F., Giaccone G., Caroppo P.: "Semantic and right temporal variant of FTD: Next generation sequencing genetic analysis on a single-center cohort". *Front Aging Neurosci.* 2022 Dec 8;14:1085406. doi: 10.3389/fnagi.2022.1085406.
- 70- Cannizzaro M., Pieri V., Curti D., Gueye M., Rugarli G., Napoli G., Cardamone R., Falini A., Perani D., Zucconi M., Casoni F., Giaccone G., **Moda F.**, Di Fede G., Magnani G., Caso F., Filippi M.: "Sporadic Fatal Insomnia presenting with agrypnia excitata and rapidly progressive dementia: a case report". *J Neurol.* 2023 Feb 22. doi: 10.1007/s00415-023-11605-5.
- 71- Bellomo G., Paciotti S., Concha-Marambio L., Rizzo D., Wojdała A.L., Chiasserini D., Gatticchi L., Cerofolini L., Giuntini S., De Luca C.M.G., Ma Y., Farris C.M., Pieraccini G., Bologna S., Filidei M., Ravera E., Lelli M., **Moda F.**, Fragai M., Parnetti L., Luchinat C.: "Cerebrospinal fluid lipoproteins inhibit α -synuclein aggregation by interacting with oligomeric species in seed amplification assays". *Mol Neurodegener.* 2023 Apr 1;18(1):20. doi: 10.1186/s13024-023-00613-8.
- 72- D'Andrea C., Cazzaniga F.A., Bistaffa E., Barucci A., de Angelis M., Banchelli M., Farnesi E., Polykretis P., Marzi C., Indaco A., Tiraboschi P., Giaccone G., Matteini P., **Moda F.**: "Impact of seed amplification assay and surface-enhanced Raman spectroscopy combined approach on the clinical diagnosis of Alzheimer's disease". *Transl Neurodegener.* 2023 Jul 12;12(1):35. doi: 10.1186/s40035-023-00367-9.
- 73- Celauro L., Burato A., Zattoni M., De Cecco E., Fantuz M., Cazzaniga F.A., Bistaffa E., **Moda F.**, Legname G. Different tau fibril types reduce prion level in chronically and de novo infected cells. *J Biol Chem.* 2023 Aug;299(8):105054. doi: 10.1016/j.jbc.2023.105054.
- 74- Pritzkow S., Ramirez F., Lyon A., Schulz P.E., Appleby B., **Moda F.**, Ramirez S., Notari S., Gambetti P., Soto C.: "Detection of prions in the urine of patients affected by sporadic Creutzfeldt-Jakob disease". *Ann Clin Transl Neurol.* 2023 Dec;10(12):2316-2323. doi: 10.1002/acn3.51919.
- 75- **Moda F.**, Ciullini A., Dellarole I.L., Lombardo A., Campanella N., Bufano G., Cazzaniga F.A., Giaccone G.: "Secondary Protein Aggregates in Neurodegenerative Diseases: Almost the Rule Rather than the Exception". *Front Biosci (Landmark Ed).* 2023 Oct 20;28(10):255. doi: 10.31083/j.fbl2810255.
- 76- Colucci F., Avenali M., De Micco R., Fusar Poli M., Cerri S., Stanziano M., Bacila A., Cuconato G., Franco V., Franciotta D., Ghezzi C., Gastaldi M., Elia A.E., Romito L., Devigili G., Leta V., Garavaglia B., Golfrè Andreasi N., Cazzaniga F., Reale C., Galandra C., Germani G., Mitrotti P., Ongari G., Palmieri I., Picascia M., Pichiecchio A., Verri M., Esposito F., Cirillo M., Di Nardo F., Aloisio S., Siciliano M., Prioni S., Amami P., Piacentini S., Bruzzone M.G., Grisoli M., **Moda F.**, Eleopra R., Tessitore A., Valente E.M., Cilia R.: "Amboxol as a disease-modifying treatment to reduce the risk of cognitive impairment in GBA-associated Parkinson's disease: a multicentre, randomised, double-blind, placebo-controlled, phase II trial. The AMBITIOUS study protocol". *BMJ Neurol Open.* 2023 Nov 24;5(2):e000535. doi: 10.1136/bmjno-2023-000535.

- 77- Mattoli M.V., Cocciolillo F., Chiacchiaretta P., Dotta F., Trevisi G., Carrarini C., Thomas A., Sensi S., Pizzi A.D., Nicola A.D.D., Crosta A.D., Mammarella N., Padovani A., Pilotto A., Moda F., Tiraboschi P., Martino G., Bonanni L.: "Combined 18F-FDG PET-CT markers in dementia with Lewy bodies. *Alzheimers Dement (Amst)*". 2023 Dec 22;15(4):e12515. doi: 10.1002/dad2.12515.

Book Chapters

1. **Moda F.**, Pritzkow S., Soto C.: "Protein Misfolding Cyclic Amplification". In: *Prion and Diseases*. Editors: Wen-Quan Zou and Pierluigi Gambetti. Assistant editor: Portia Formento, Biomedicine; Springer Science & Business Media 233 Spring Street | New York, NY 10013-1578 | United States. ISBN 978-1-4614-5304-8
2. Bistaffa E., Rossi M., De Luca C.M.G., **Moda F.**: "Biosafety of prions". In: *Progress in Molecular Biology and Translational Science*. Editors: Giuseppe Legname and Silvia Vanni. Assistant editor: Helene Kabes; Elsevier. *Prog Mol Biol Transl Sci*. 2017;150:455-485. doi: 10.1016/bs.pmbts.2017.06.017. Epub 2017 Aug 2.
3. **Moda F.**: "Protein Misfolding Cyclic Amplification". In: *Progress in Molecular Biology and Translational Science*. Editors: Giuseppe Legname and Silvia Vanni. Assistant editor: Helene Kabes; Elsevier.
4. Legname G., **Moda F.**: "The Prion Concept and Synthetic Prions". In: *Progress in Molecular Biology and Translational Science*. Editors: Giuseppe Legname and Silvia Vanni. Assistant editor: Helene Kabes; Elsevier.
5. **Moda F.**, Bistaffa E., Narkiewicz J., Salzano G., Legname G.: "Synthetic Mammalian Prions" In: *Prion diseases*. Part of the neuromethods book series. 2017;129, 209-228. doi.org/10.1007/978-1-4939-7211-1_13. Print ISBN 978-1-4939-7209-8. Humana Press, New York, NY. Springer protocols.
6. De Luca C.M.G., Cazzaniga F., **Moda F.**: "Cell-free amplification of prions". In: *Progress in Molecular Biology and Translational Science - Volume 173 - Prions and neurodegenerative diseases*. In preparation.
7. Cazzaniga F.A., De Luca C.M.G., Bistaffa E., Consonni A., Legname G., Giaccone G., **Moda F.**: "Cell-free amplification of prions: Where do we stand?". In: *Progress in Molecular Biology and Translational Science* 2020;175:325-358. doi: 10.1016/bs.pmbts.2020.08.005. Epub 2020 Sep 9.

Invited speaker

1. **International Congress:** *Prion detection in urine of patients with variant Creutzfeldt-Jakob disease: an update*. May 27-30, 2014. Prion 2014. Trieste (Italy);
2. **Course:** *La gestione del rischio da prioni per gli operatori sanitari. Procedure di sterilizzazione dell'ambiente e dei presidi medici e chirurgici*. November 24, 2015. Fondazione IRCCS Istituto Neurologico Carlo Besta. Milan (Italy);
3. **Seminar:** *Amplificazione del misfolding proteico in vitro: applicazioni diagnostiche e identificazione di farmaci*. May 26-28, 2016. 52° Congresso Associazione Italiana Neuropatologia e Neurobiologia Clinica & 42° Congresso Associazione Italiana Ricerca Invecchiamento Cerebrale. Rome (Italy);
4. **Seminar:** *Misfolded aggregates and human neurodegenerative proteinopathies*. May 6, 2016. Department of Pharmacy and biotechnology (FABIT). Alma mater studiorum, University of Bologna. Bologna (Italy);
5. **Seminar:** *Protein misfolding and neurodegenerative disease*. March 31, 2017. ERC's 10th anniversary. Amyloids: from pathological agents to useful nanomaterials. Politecnico di Milano. Milan (Italy);
6. **Seminar:** *Detection of disease-specific biomarkers in the olfactory mucosa of patients with neurodegenerative disorders: diagnostic and therapeutic applications*. May 8, 2017. IRCCS Foundation Carlo Besta Neurological Institute. Milan (Italy);

7. **Workshop:** *In vitro amplification of protein misfolding: diagnostic and therapeutic applications*. May 12-13, 2017. Miniworkshop e Convegno CIMN "Misfolding proteico e amiloidosi XII". Genova (Italy);
8. **Seminar:** *Tecniche innovative per la rilevazione di alfa-sinucleina patologica*. May 18-20, 2017. 53° Congresso Associazione Italiana Neuropatologia e Neurobiologia Clinica & 43° Congresso Associazione Italiana Ricerca Invecchiamento Cerebrale. Padova (Italy);
9. **Workshop:** *La ricerca farmacologica oggi tra limiti e innovazione*. May 27, 2017. Fondazione IRCCS Istituto Neurologico Carlo Besta. Milan (Italy);
10. **Seminar:** *Amplification of misfolded proteins from biological fluids and peripheral tissues of patients with degenerative dementias*. September 11, 2017. BIOGEN Headquarter, Cambridge, Massachusetts (USA);
11. **Summer school:** *Prion and prion-like neurodegenerative disorders*. September 25-29, 2017. Desenzano del Garda (Italy);
12. **Workshop:** *Neurodegenerazione da prioni e la diagnostica del futuro*. October 7-14, 2017. Bergamo Scienza, Bergamo (Italy);
13. **Workshop:** *Tecniche di amplificazione, misfolding proteico, proteina tau e alfa-sinucleina*. May 17-19, 2018. 43° Congresso Associazione Italiana Neuropatologia e Neurobiologia Clinica & 44° Congresso Associazione Italiana Ricerca Invecchiamento Cerebrale. Milan (Italy);
14. **National Congress:** *Sviluppo di biomarcatori molecolari periferici con tecniche avanzate*. Plenary session - XLIX Congresso Società Italiana di Neurologia. October 27-30, 2018. Roma (Italy);
15. **Workshop:** *Out of the box research on neurodegeneration*. December 3, 2018. Scuola Normale Superiore, Pisa (Italy);
16. **Seminar:** *Amplification of misfolded proteins from biological fluids and peripheral tissues of patients with degenerative dementias*. December 14, 2018. University of Milan (Italy);
17. **National congress:** *Biomarcatori molecolari periferici con tecniche avanzate*. Nuove frontiere per i pazienti a rischio e nelle fasi precoci della malattia di Alzheimer. February 15, 2019 Naples (Italy);
18. **International congress:** *Efficient RT-QuIC seeding activity for α -synuclein in olfactory mucosa samples of patients with Parkinson's disease and Multiple System Atrophy*. Prion2019, May 21-24, 2019 Edmonton (Canada);
19. **Workshop:** *I giovani e la Ricerca per la malattia di Alzheimer: vecchie sfide, nuove idee*. IRCCS Centro San Giovanni di Dio Fatebenefratelli. September 20, 2019. Brescia (Italy).
20. **Summer school:** *Aggregation mechanisms of neurodegeneration-related IDPs*. Intrinsically disordered proteins (IDPs): from physical chemistry to pathogenic mechanisms. September 23-26, 2019 Como (Italy);
21. **National Congress:** *Detection and characterization of abnormal alpha-synuclein in the olfactory mucosa of patients with PD and atypical parkinsonisms*. Italian Society of Neuroscience SINS. September 27-29, 2019. Perugia (Italy);
22. **International workshop:** *Dr. Jekyll and Mr Hyde side of proteins: insight into neurodegenerative diseases*. Norwegian Veterinary Institute. October 15, 2019. Oslo (Norway).
23. **Workshop:** *Biomarcatori delle alfa-sinucleinopatie*. Parkinson frontiers, focus on molecular mechanisms, physiopathology and therapeutic approaches. October 10-12, 2019. Trento (Italy);
24. **National Congress:** *Tecniche di amplificazione in vitro del misfolding proteico: dai prioni ad alfa-sinucleina, tau e beta-amiloide*. Grandangolo 2019, un anno di neurologia IV Edizione. November 29-30, 2019. Genova (Italy).
25. **National Congress:** *Efficient RT-QuIC seeding activity for α -synuclein in olfactory mucosa samples of patients with Parkinson's disease and Multiple System Atrophy*. 51° Congresso Nazionale della

- Società Italiana di Biochimica Clinica e Biologia Molecolare Clinica. November 22, 2019. Padova (Italy).
26. **Workshop:** *L'analisi del liquor nella diagnostica delle malattie neurologiche*. Fondazione IRCCS Istituto Neurologico Carlo Besta. December 3, 2019. Milan (Italy).
 27. **PhD course:** *RT-QulC: a new promising tool for the differential diagnosis of synucleinopathies. Parkinson's disease: a roadmap for developing disease-modifying therapies*. Vita-Salute San Raffaele University, Milan, Italy. May 7-8, 2020. Virtual meeting. Zoom platform.
 28. **Congress of the Italian Society for Neuroscience (SINS):** Invited chairman of the symposium "*Proteinopathies in neurodegenerative diseases*". September 9-11, 2021. Virtual meeting. Zoom platform.
 29. **Webinar SINDem:** "*In vivo*" direct biomarkers of alpha-synuclein pathology in prodromal and full-blown DLB: state of the art. May 25th, 2022. Virtual Meeting
 30. **National Congress SINDem:** *Peripheral biomarkers*. November 25-27, 2021 Firenze (Italy)
 31. **Summer School Brescia 2022:** *Biomarkers in neurodegenerative diseases. From bench to bedside*. July 12-15, 2022 Brescia (Italy)
 32. **Congress of the Italian Society for Neuroscience (SINS):** Invited speaker of the symposium "*Picture Parkinson's disease progression: brain imaging and peripheral biomarkers*". September 14-17, 2023 Torino (Italy)

Supervision of graduate students and postdoctoral fellows

November 2014- May 2016:	1 Resident in Neurology. Dept. of Neurosciences, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health, University of Genova, IRCCS AOU San Martino-IST, Genova, Italy
Septem 2014 – Septem 2018:	Tutor of 2 PhD Students. PhD program in Functional and Structural Genomics, Scuola Internazionale Superiore di Studi Avanzati (SISSA). Department of Neuroscience, Laboratory of prion biology, Trieste, Italy.
March 2016 – November 2017	Thesis Advisor of a Master Student in neurobiology, University of Pavia, Pavia, Italy
March 2018 – February 2019:	Thesis Advisor of a Master Student in neurobiology, University of Pavia, Pavia, Italy.
Novem 2018 – Novem 2023:	Supervisor of a PhD Student in molecular biology (Joint PhD program in molecular biology – JUMBO), Scuola Internazionale Superiore di Studi Avanzati, Trieste, Italy
March 2020 – February 2021:	Thesis Advisor of a Master Student in medical biotechnology, pharmaceutical biotechnology, University of Milano-Bicocca, Milan, Italy
March 2021 – February 2022:	Thesis Advisor of a Master Student in neurobiology, University of Pavia, Pavia, Italy; and a Master Student in pharmacy University of Milano, Milan, Italy
March 2022 – February 2023:	Thesis Advisor of a Master Student in neurobiology, University of Pavia, Pavia, Italy
November 2022 – present:	Tutor of 1 PhD Student in Translational and Molecular Medicine (DIMET), University of Milano-Bicocca, Milano, Italy
March 2023 – present:	Thesis Advisor of a Master Student in neurobiology, University of Pavia, Pavia, Italy

Awarded grants

1. **FABS201402 - La Fondation pour la recherche medicale (FRM) on behalf on the Foundation Alliance BioSecure (FABSFRM)**
Prion detection in blood samples of patients suffering from variant Creutzfeldt-Jakob disease.
Duration: 01/02/2015-31/01/2017
Total amount: 60.000€
Role: PI
2. **BAND 11035 – Biomarkers Across Neurodegenerative Diseases Grant Program 2015 – Alzheimer’s Association (ALZ), Alzheimer’s Research UK (ARUK), The Michael J. Fox Foundation for Parkinson’s Research (MJFF) and Weston Brain Institute.**
Seed of dementia: misfolded proteins in neurodegenerative disorders.
Duration: 2016-2018
Total amount: 121.000 \$
Role: PI
3. **Fondazione CARIPLO**
Understanding the role of β -amyloid peptide halogenation in Alzheimer’s disease
Duration: 2015-2017
Amount to the applicant: 146.500 €
Role: Collaborator of Carlo Besta Unit
4. **Italian Ministry of Health. Ricerca Corrente**
Sviluppo e validazione di biomarcatori specifici per la diagnosi precoce delle malattie neurodegenerative, in particolare le malattie da prioni e la malattia di Alzheimer.
Duration: 2017-2018
Amount: 30.000 €
Role: PI
5. **Italian Ministry of Health. Ricerca Finalizzata: GR-2013-02355724**
Ultrasensitive diagnostic test for degenerative dementias based on amplification of peripheral disease-specific biomarkers from the olfactory mucosa.
Duration: 01/07/2016-31/06/2020
Total amount: 321.474 €
Amount to the applicant: 138.918 €
Role: PI
6. **The Association for Frontotemporal Degeneration (AFTD)**
Detection of misfolded TDP-43 protein in CSF and plasma of GRN and C9orf72 mutation carriers.
Duration: 01/01/2017-31/12/2017
Total amount: 60.000 \$
Role: Co-PI
7. **Made in Trieste Project**
Development and optimization of innovative techniques (PMCA and RT-QuIC) for an early and definitive diagnosis of neurodegenerative disorders.
Duration: 2018
Total amount: 24.000 €
Role: Co-PI
8. **European Innovative Research & Technological Development Projects in Nanomedicine - EuroNanoMed III**
Surface-enhanced Raman scattering with nanophotonic and biomedical amplifying system for an early diagnosis of Alzheimer’s disease pathology (SPEEDY).
Duration: 01/06/2018-31/05/2021
Amount to the applicant: 250.000 €
Role: Coordinator of Carlo Besta Unit

9. **Italian Ministry of Health. Ricerca Corrente**
Sviluppo e validazione di biomarcatori specifici per la diagnosi precoce delle malattie neurodegenerative, in particolare le malattie da prioni e la malattia di Alzheimer.
Duration: 2019-2020
Amount: 30.000 €
Role: PI
10. **Italian Ministry of health. Ricerca Finalizzata: RF-2018-12366209**
Dementia with Lewy Bodies: toward a standardization of the diagnostic tools among the Italian Dementia Centers.
Duration: 09/11/2020-08/11/2023
Total amount: 631.926,29 €
Amount to the applicant: 170.000 €
Role: Collaborator (young researcher) of Carlo Besta Unit
11. **Norwegian research funding for agriculture and food industry**
Reindeer CWD prion ecology: Risk of dissemination by sheep
Duration: 02/07/2019-01/07/2022
Total amount: 935.498 €
Amount to the applicant: no budget allocated
Role: Coordinator of Carlo Besta Unit
12. **Italian Ministry of health. Ricerca Corrente 2019 – programma di rete**
Approcci innovativi per l'identificazione e la validazione di biomarcatori nell'ambito delle malattie neurodegenerative
Rete IRCCS delle Neuroscienze e della Neuroriabilitazione – RIN –
Duration 2019-2020
Amount to the applicant: 34.500 €
Role: Coordinator of Carlo Besta Unit
13. **Bando Ricerca Salute 2018 – Regione Toscana**
Proteomics, RAdiomics & Machine learning-integrated strategy for precision medicine for Alzheimer's (PRAMA)
Duration: 2020-2022
Total amount: 736.000 €
Amount to the applicant: no specific budget allocated
Role: Collaborator of Carlo Besta Unit
14. **Intramural Funding (5x1000) – Fondazione IRCCS Istituto Neurologico Carlo Besta (5M-2018-23680266)**
Identification of early and peripheral biomarkers predictive of Parkinson's disease and dementia with Lewy bodies (ProDrOMaL)
Duration: 01/10/2021-30/09/2025
Total amount: 120.000 €
Role: PI
15. **The EU Joint Programme – Neurodegenerative Disease Research (JPND 2021-650-130)**
Prodromal biomarkers in fatal familial insomnia: a longitudinal study in humans and mice (ProFFile)
Duration: 01/06/2022-31/05/2025
Total amount: 775.577,60 €
Amount to the applicant: 133.650 €
Role: Coordinator of Carlo Besta Unit
16. **Norwegian Research Council**
Chronic wasting disease prions from Norwegian cervids: Assessing the pathogenesis, shedding, spillover and zoonotic potential (EmergingCWD)
Duration: 01/11/2023-31/10/2029

Total amount: 1.411.947 €
Amount to the applicant: 24.347 €
Role: Coordinator of Carlo Besta Unit

17. Italian Ministry of Health. Ricerca Finalizzata: GR-2021-12372019

Exploring the olfactory mucosa, blood and urine for the identification of early biomarkers of Parkinson's disease, atypical parkinsonisms and neurocognitive disorders due to Lewy body disease
Duration: 30/04/2023-29/04/2026
Total amount: 450.000 €
Amount to the applicant: 192.570 €
Role: PI

18. Italian Ministry of Health. PNRR:MAD-2022-12376035

Toward molecular profiling of Parkinson's disease in easily accessible biological matrices
Duration: 20/05/2023-29/04/2025
Total amount: 1.000.000 €
Amount to the applicant: 300.000 €
Role: Coordinator of Carlo Besta Unit - Responsible for WP

19. Synapsis Foundation Switzerland - Dementia Research (2022-PI06)

RT-QulC analysis in skin biopsies: a potential novel and non-invasive biomarker for patients with tauopathies
Duration: 01/08/2023-28/02/2025
Total amount: 198120 €
Amount to the applicant: 40.000€
Role: Coordinator of Carlo Besta Unit - Responsible for WP

20. Italian Ministry of Health. PNC-E3-2022-23683266

Italian network of excellence for advanced diagnosis (INNOVA)
Duration: 02/01/2023-01/01/2027
Total amount: 86.418.562 €
Amount to the applicant: 1.320.000€
Role: Collaborator of Carlo Besta Institute – Responsible for WP

21. The MSA Coalition. MSAC-2023-12-005

Refining the clinical diagnosis of MSA-C and MSA-P using olfactory mucosa and skin samples
Duration: 2024-2025
Total amount: 48.000\$
Role: PI

Organization of congresses/workshops/webinar

- Organizer and member of the scientific committee of the international congress "Towards the future of brain research: Besta young researchers' international congress". September 27-28th, 2018. Museo della Scienza e della Tecnologia "Leonardo da Vinci". Milan (Italy)
- Organizing Committee Member of the Besta Seminar Series (from September 2022)
- Webinar SINDem "Impatto e limiti delle tecnologie ultrasensibili nella diagnosi delle alfa-sinucleinopatie". September 21st, 2022. Virtual meeting.

International recognition and responsibilities

2015

Peer reviewer for the Alliance Biosecure Foundation under the aegis of the Fondation pour la Recherche Médicale

2017

Peer reviewer for the Department of Health (UK) of prion related projects

2019 – 2021

Member of the research steering group for the project “Evaluation of Candidate Tests for Pre-Clinical Detection of Prion Disease in Blood”. Policy Research Programme - Central Commissioning Facility. Department of Health (UK).

2020 – present

Reviewer for the Texas Alzheimer’s Research and Care Consortium (TARCC) research projects

2024- present

Reviewer for the Swiss National Science Foundation

Teaching activities

- September 2017 – present: Faculty member of the PhD course in Molecular Biology at Scuola Internazionale Superiore di Studi Avanzati (<http://phdjumbo.sissa.it/faculty>);
- May 16th, 2018: “Detection of aggregated protein involved in neurodegeneration” Module Neurobiology of Neurodegenerative Diseases. Corso di Laurea Magistrale internazionale in Neuroscienze. Università degli studi di Trieste/Scuola Internazionale Superiore di Studi Avanzati (3h). Invito da parte del prof. Giuseppe Legname (legname@sissa.it);
- December 14th, 2018: “Amplification of misfolded proteins from biological fluids and peripheral tissues of patients with degenerative dementias”. Università degli Studi di Milano. Corso di Biochimica Clinica e Biologia Molecolare Clinica della Laurea Magistrale in Biologia Applicata alla Ricerca Biomedica (2h). Invito da parte della prof.ssa Graziella Cappelletti (graziella.cappelletti@unimi.it);
- May 10th, 2019: “Detection of aggregated protein involved in neurodegeneration” Module Neurobiology of Neurodegenerative Diseases; Corso di Laurea Magistrale internazionale in Neuroscienze. Università degli studi di Trieste/Scuola Internazionale Superiore di Studi Avanzati (3h). Invito da parte del prof. Giuseppe Legname (legname@sissa.it);
- June 4th, 2019: “Tecniche di biologia molecolare innovative per la diagnosi delle malattie neurodegenerative”. Università degli Studi di Milano. Corso di Biochimica Clinica e Biologia Molecolare Clinica della Laurea Magistrale in Biologia Applicata alla Ricerca Biomedica (1h 30 min). Invito da parte del prof. Andrea Mosca (andrea.mosca@unimi.it);
- December 12nd, 2019: “Tecniche di biologia molecolare innovative per la diagnosi delle malattie neurodegenerative”. Università degli Studi di Milano. Corso di Tecniche Avanzate di Indagine Biomedica (TAIB) della Laurea Magistrale in Biologia Applicata alla Ricerca Biomedica (2h). Invito da parte del prof. Mirko Baruscotti (mirko.baruscotti@unimi.it);
- April 28th, 2020: “Detection of aggregated protein involved in neurodegeneration” Module Neurobiology of Neurodegenerative Diseases; Corso di Laurea Magistrale internazionale in Neuroscienze. Università degli studi di Trieste/Scuola Internazionale Superiore di Studi Avanzati (3h). Invito da parte del prof. Giuseppe Legname (legname@sissa.it);
- May 5th, 2020: “Tecniche di biologia molecolare innovative per la diagnosi delle malattie neurodegenerative”. Università degli Studi di Milano. Corso di Biochimica Clinica e Biologia Molecolare Clinica della Laurea Magistrale in Biologia Applicata alla Ricerca Biomedica (1.30h).). Invito da parte del prof. Mirko Baruscotti (mirko.baruscotti@unimi.it);
- December 17th, 2020: “Tecniche di biologia molecolare innovative per la diagnosi delle malattie neurodegenerative”. Università degli Studi di Milano. Corso di Tecniche Avanzate di Indagine Biomedica (TAIB) della Laurea Magistrale in Biologia Applicata alla Ricerca Biomedica (2h).). Invito da parte del prof. Mirko Baruscotti (mirko.baruscotti@unimi.it);
- May 13rd, 2021: “Detection of aggregated protein involved in neurodegeneration” Module Neurobiology of Neurodegenerative Diseases; Corso di Laurea Magistrale internazionale in Neuroscienze. Università degli studi di Trieste/Scuola Internazionale Superiore di Studi Avanzati (3h). Invito da parte del prof. Giuseppe Legname (legname@sissa.it);

- May 17th, 2021: "Tecniche di biologia molecolare innovative per la diagnosi delle malattie neurodegenerative". Università degli Studi di Milano. Corso di Biochimica Clinica e Biologia Molecolare Clinica della Laurea Magistrale in Biologia Applicata alla Ricerca Biomedica (1.30h). Invito da parte del prof. Andrea Mosca (andrea.mosca@unimi.it);
- October 28th, 2021: "Tecniche di biologia molecolare innovative per la diagnosi delle malattie neurodegenerative". Università degli Studi di Milano. Corso di Tecniche Avanzate di Indagine Biomedica (TAIB) della Laurea Magistrale in Biologia Applicata alla Ricerca Biomedica (2h). Invito da parte del prof. Mirko Baruscotti (mirko.baruscotti@unimi.it);
- May 16th, 2021: "Detection of aggregated protein involved in neurodegeneration" Module Neurobiology of Neurodegenerative Diseases; Corso di Laurea Magistrale internazionale in Neuroscienze. Università degli studi di Trieste/Scuola Internazionale Superiore di Studi Avanzati (3h). Invito da parte del prof. Giuseppe Legname (legname@sissa.it);
- May 20th, 2022: "Detection of aggregated protein involved in neurodegeneration" Module Neurobiology of Neurodegenerative Diseases; Corso di Laurea Magistrale internazionale in Neuroscienze. Università degli studi di Trieste/Scuola Internazionale Superiore di Studi Avanzati (3h). Invito da parte del prof. Giuseppe Legname (legname@sissa.it);
- October 27th, 2022: "Tecniche di biologia molecolare innovative per la diagnosi delle malattie neurodegenerative". Università degli Studi di Milano. Corso di Tecniche Avanzate di Indagine Biomedica (TAIB) della Laurea Magistrale in Biologia Applicata alla Ricerca Biomedica (2h). Invito da parte del prof. Mirko Baruscotti (mirko.baruscotti@unimi.it);
- October 26th, 2023: "Tecniche di biologia molecolare innovative per la diagnosi delle malattie neurodegenerative". Università degli Studi di Milano. Corso di Tecniche Avanzate di Indagine Biomedica (TAIB) della Laurea Magistrale in Biologia Applicata alla Ricerca Biomedica (2h). Invito da parte del prof. Mirko Baruscotti (mirko.baruscotti@unimi.it);
- April 21st, 2023: "Detection of aggregated protein involved in neurodegeneration" Module Neurobiology of Neurodegenerative Diseases; Corso di Laurea Magistrale internazionale in Neuroscienze. Università degli studi di Trieste/Scuola Internazionale Superiore di Studi Avanzati (3h). Invito da parte del prof. Giuseppe Legname (legname@sissa.it);

Editorial activities

- Review Editor for Frontiers in Aging Neuroscience;
- Review Editor for Frontiers in Neuroscience;
- Review Editor for Frontiers in Neurology / Movement Disorders;
- Editorial Board Member of Biomedicines;
- Guest Editor for the Special Issue "From protein misfolding to dementia: basic research, innovative diagnosis and early biomarkers" in Frontiers in Bioscience;
- Guest Editor for the Special Issue "Emerging Omic tools in neurodegenerative diseases diagnosis" in Frontiers in Molecular Biosciences.

Awards

- July 2022: "**Best paper award**" for the paper published in Translational Neurodegeneration: De Luca CMG, Elia AE, Portaleone SM, Cazzaniga FA, Rossi M, Bistaffa E, De Cecco E, Narkiewicz J, Salzano G, Carletta O, Romito L, Devigili G, Soliveri P, Tiraboschi P, Legname G, Tagliavini F, Eleopra R, Giaccone G, Moda F. Efficient RT-QulC seeding activity for α -synuclein in olfactory mucosa samples of patients with Parkinson's disease and multiple system atrophy. Transl Neurodegener. 2019 Aug 8;8:24. doi: 10.1186/s40035-019-0164-x;
- November 2021: **AirAlzh Award** for the best oral communication at SINDem meeting 2021;

- March 2018: Rita Levi Montalcini award for the best scientific work presented at the AAT-AD/PDTM focus meeting 2018
- May 2013: **"Bets poster award"** for the poster presented at the Prion2013 meeting

Member of Scientific Societies

April 2019 – present: Member of "Società Italiana di Biochimica Clinica e Biologia Molecolare Clinica (SIBioC)"

January 2020 – December 2022: Scientific Committee Member of SINdem society

January 2023 - present: Scientific Committee Member of SINdem society

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Date

March 08, 2024

