Curriculum Vitae

Michele Mishto, PhD
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Postdoc at Institut für Biochemie, Universitätsmedizin Berlin - Charité,
Visting Professor at Universita' del Piemonte Orientale, Novara, Italy
Senior Lecturer and group leader at King's College London, United Kingdom

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Licensure

2016	Italian license as full-professor in Biochemistry, as associated-professor in General Pathology, Applied Biology, Molecular Biology (ASN 2016).
2005	PhD in Medical Biotechnology, University of Bologna, Italy.
2000	Degree in Biotechnology, (full marks, 110/110), University of Bologna, Italy.

Professional positions

2017-to date	Senior Lecturer and group leader at Centre for Inflammation Biology and Cancer Immunology (CIBCI) & Peter Gorer Department of Immunobiology, King's College London, London, United Kingdom
2016-2017	Visiting professor at the Department of Health Sciences, Universita' del Piemonte Orientale, Novara, Italy.
2014-to date	PostDoc at the Institut für Biochemie (Prof. P.M. Kloetzel) - Charité, Berlin, Germany.
2013-2014	P.I. (grant) at Centro Interdipartimentale di Ricerca sul Cancro “Giorgio Prodi”, University of Bologna, Italy. Visiting researcher at the Institut für Biochemie - Universitätsmedizin - Charité, Berlin, Germany
2012-2013	P.I. (grant) at the Interdepartmental Galvani center (CIG) – University of Bologna, Italy. Visiting researcher at the Institut für Biochemie - Charité, Berlin, Germany.
2011-2012	PostDoc at the Institut für Biochemie - Charité, Berlin, Germany.
2010:	Visiting Researcher at the Institut für Biochemie - Charité, Berlin, Germany.
2008-2010	P.I. (fellowship) at the Institut für Biochemie, Charité, Berlin, Germany.
2005-2008	PostDoc at Laboratory of Immunology (Prof C. Franceschi), CIG - University of Bologna, Italy.
2001-2005	PhD fellowship at Laboratory of Immunology (Prof C. Franceschi), CIG - University of Bologna, Italy.
2000-2001	Post graduate fellowship at Laboratory of Immunology (Prof C. Franceschi), CIG - University of Bologna, Italy.

Awards and personal grants/fellowships

2017	APP 2017 travel grant award (500 €)
2013	AICE FIRE Onlus Emilia Romagna, Italy - proteasome and epilepsy (20.000 €).
2012	Grant by Onyx Pharmaceutical, US - proteasome and epilepsy (50.000 $).
2011	FISM training fellowship (Mentor of the Applicant) by FISM, Italy - antigen presentation in multiple sclerosis (58.000 €).
2008	Grant Giovani Ricercatori 2007 (Unit P.I.) by Italian Ministry of Health, Italy - proteasome and multiple sclerosis (600.000 €).
2008	Humboldt Research Fellowship for Postdoctoral Researchers by A. v. Humboldt Stiftung, Germany - proteasome and multiple sclerosis (74.000 €).
2002, 2006	Marco Polo travel fellowship by University of Bologna, Italy (7.500 €).

Patents

2010	Title: “Method for identification of proteasome generated spliced peptides”. Application number: EP 10075087.6. Application date: 25.02.2010. Applicant: Charité – Berlin, Essex University.

Selected publications

38 papers. 16 as corresponding author, 13 as first author, 8 as senior author.
H-index = 21. i10-index = 25. Last 5 years h-index = 18.
1158 citations all over. Last 5 years' citations = 727.

1. Dianzani, C., E. Bellavista, J. Liepe, C. Verderio, M. Martucci, A. Santoro, A. Chiocchetti, C. L. Gigliotti, E. Boggio, B. Ferrara, L. Riganti, C. Keller, K. Janek, A. Niewienda, C. Fenoglio, M. Sorosina, R. Cantello, P. M. Kloetzel, M. P. Stumpf, F. Paul, K. Ruprecht, D. Galimberti, F. Martinelli-Boneschi, C. Comi, U. Dianzani, and **M**. **Mishto**. Extracellular proteasome-osteopontin circuit regulates cell migration with implications in multiple sclerosis. ***Sci Rep 2017*** Mar 9;7, 43718; doi: 10.1038/srep43718.
2. Liepe J, Marino F, Sidney J, Jeko A, Bunting DE, Sette A, Kloetzel PM, Stumpf MP, Heck AJ, **Mishto M.** A large fraction of HLA class I ligands are proteasome-generated spliced peptides. ***Science 2016*** Oct; 354(6310): 354-358. DOI: 10.1126/science.aaf4384.
3. Liepe J, Holzhütter HG, Bellavista E, Kloetzel PM, Stumpf MP, **Mishto M**. Quantitative time-resolved analysis reveals intricate, differential regulation of standard- and immuno-proteasomes. ***eLife*. 2015** Sep 22;4. doi: 10.7554/eLife.07545. PubMed PMID: 26393687
4. **Mishto M**, Raza ML, de Biase D, Ravizza T, Vasuri F, Martucci M, Keller C, Bellavista E, Buchholz TJ, Kloetzel PM, Pession A, Vezzani A, Heinemann U. The immunoproteasome β5i subunit is a key contributor to ictogenesis in a rat model of chronic epilepsy. ***Brain Behav Immun*. 2015** Oct;49:188-96. doi: 10.1016/j.bbi.2015.05.007. Epub 2015 Jun 1. PubMed PMID: 26044087.
5. **Mishto M**, Goede A, Textoris-Taube K, Keller C, Janek K, Henklein P, Niewienda A, Kloss A, Gohlke S, Dahlmann B, Enenkel C, Kloetzel PM. Driving forces of proteasome-catalyzed peptide splicing in yeast and humans. ***Mol Cell Proteomics*. 2012** Oct;11(10):1008-23.

Research stays

2005	Visiting researcher at the Institute of Physic (Prof. J. Kurths), Potsdam University, Potsdam, Germany.
2002-2008	Visiting researcher at the Institut für Biochemie (Prof. P.M. Kloetzel), Charité, Berlin, Germany.
2002, 2003	Visiting researcher at Department of Biochemistry (Prof. A.J. Rivett), School of Medical Sciences, Bristol, UK.
2001	Visiting researcher at the Laboratory of Cellular Biology and Biochemistry, (Prof B. Friguet). Université Paris 7 - Denis Diderot, Paris, France.
1999-2000	Internship at the Laboratory of Molecular Genetics (Prof. Ravazzolo), "G. Gaslini" Institute, Genoa, Italy.

Teaching/workshops

2016-	Italian license as full-professor in Biochemistry, as associated-professor in General Pathology, Applied Biology, Molecular Biology (ASN 2016)
2016	Seminars for master and PhD student at University of Piemonte Orientale, Italy.
2016	1st workshop on "Integrative system biology to understand multiple sclerosis", University of Piemonte Orientale, Italy (organizer).
2008	Molecular Immunology course for Bioinformatics Students, University of Bologna, Italy.
2001-2007	Immunology course for Biotechnology students, University of Bologna, Italy.

(all courses were taught in English)

Talks at conferences and seminars

2017	King's College London seminars. "*Proteasome-generated spliced peptides: from biochemistry to immunobiology".* London, UK.
2017	Ragon Institute of MGH, MIT and Harvard seminars. "*Proteasome-catalysed peptide splicing and its biological implications*". Cambridge, MA, USA.
2017	Gritstone Oncology Inc. seminars. "*Proteasome-catalysed peptide splicing and its biological implications*". Cambridge, MA, USA.

2017 Harvard Medical School seminars. "*Proteasome-catalysed peptide splicing and its biological implications*". Boston, MA, USA.

2017 Ludwig Institute for Cancer Research seminars. "*Proteasome-catalysed peptide splicing and its biological implications*". Brussels, Belgium.

2017 Max-Delbrück- Centrum für Molekulare Medizin seminars. "*Proteasome-catalysed peptide splicing and its biological implications*". Berlin, Germany.

2016 Ludwig Institute for Cancer Research seminars. "*Proteasome-catalysed peptide splicing and its biological implications*". Oxford, UK.

2016 Immunity and Inflammation in Epilepsy meeting (IIE2016). "*Potential roles of immunoproteasome in epilepsy*". Milan, Italy.

2016 46th Annual Meeting of the German Society for Immunology (DGfi). "*Proteasome-generated spliced epitopes: the future targets for immunotherapy?*". Hamburg, Germany.

2016 1st International Caparica Conference in Splicing. "*Mechanisms and immunological relevance of proteasome-catalyzed peptide splicing*". Lisbon, Portugal.

2016 Changing Views in Cancer Congress. "*Proteasome-generated spliced epitopes: the future targets for immunotherapy?*". Berlin, Germany.

2016 1st workshop on "Integrative system biology to understand multiple sclerosis". "*Proteasome as regulator of the immune response*". University of Piemonte Orientale, Novara, Italy.

2015 Brain Disorders and Therapeutics Conference. "*Immunoproteasome in neuroinflammation*". London, UK.

2014 Eijkman lecture - Infection and Immunity Center Utrecht. "*Proteasome-catalysed peptide splicing: mechanisms and implications in immunology*". Universiteit Utrecht, The Netherlands

2014 CNR seminars. "*Untangling proteasome proteolysis*". CNR, Roma, Italy.

2011 2nd Workshop on System Medicine interfacing physic, mathematics and medicine, SysBioHealth 2011."*Proteasomal splicing and mathematical modelling of proteasome*". Bologna, Italy.

2010 Proteomics Fall Seminar Series centrale Europe (ThermoFisher) 2010. "*Proteasome Splicing: identification and quantification of an unforeseen world*". Berlin, Germany.

2010 WhyWeAge workshop 2010. "*How aging could modify antigen presentation: the unforeseen world of proteasome splicing*". Univ. Bologna, Italy.

2009 6th Fabisch Symposium 2009. "*Role of immunoproteasomes in ageing and neurodegenerative diseases*". Frei Universität – Berlin, Germany.

2007 The 3rd International IEEE Scientific Conference on Physics and Control – Physcon 2007. *"Proteasome Modeling Algorithm to predicts in vitro kinetics of 20S proteasome degradation"*, University of Potsdam, Potsdam, Germany.

2007 FISM conference."*Immunoproteasome and Multiple Sclerosis: genetics and biological relevance in the onset of the disease*". Napoli , Italy.

2005 Giornata Mondiale per l'Alzheimer. Congress "Nuove strategie terapeutiche per la malattia di Alzheimer". "*Il proteasoma: un possibile target nella malattia di Alzheimer*". Brescia, Italy.

2003 "Proteasomes: theory, experiment and Immunological aspects" (Workshop). '*Mathematical modelling of the dynamics of proteasome digestion: Channel size regulates the fragment distribution'.* Tübingen, Germany.

2003 X Congresso Nazionale A.I.B.T., II Corso Nazionale di Aggiornamento di Immunogenetica e Immunologia. "*Immunoproteasoma e suo ruolo nell'invecchiamento e nelle malattie autoimmuni"*. Palermo, Italy.

2001 "ImAginE: Immunology and Ageing in Europe", 2nd Conference on basic biology and clinical impact of immunosenescence. "*LMP polymorphism on TNF-a induced apoptosis in PBMCs*". Cordoba, Spain.

Publications

Articles in international journals

1. Dianzani, C., E. Bellavista, J. Liepe, C. Verderio, M. Martucci, A. Santoro, A. Chiocchetti, C. L. Gigliotti, E. Boggio, B. Ferrara, L. Riganti, C. Keller, K. Janek, A. Niewienda, C. Fenoglio, M. Sorosina, R. Cantello, P. M. Kloetzel, M. P. Stumpf, F. Paul, K. Ruprecht, D. Galimberti, F. Martinelli-Boneschi, C. Comi, U. Dianzani, and **M**. **Mishto**. Extracellular proteasome-osteopontin circuit regulates cell migration with implications in multiple sclerosis. ***Sci Rep 2017*** Mar 9;7, 43718; doi: 10.1038/srep43718.
2. Liepe J, Marino F, Sidney J, Jeko A, Bunting DE, Sette A, Kloetzel PM, Stumpf MP, Heck AJ, **Mishto M.** A large fraction of HLA class I ligands are proteasome-generated spliced peptides. ***Science 2016*** Oct; 354(6310): 354-358. DOI: 10.1126/science.aaf4384.
3. Platteel ACM, de Groot AM, Keller C, Andersen P, Ovaa H, Kloetzel PM, **Mishto M**, Sijts AJAM. Strategies to enhance immunogenicity of cDNA vaccine encoded antigens by modulation of antigen processing. ***Vaccine 2016*** Sep 1. Doi: 10.1016/j.vaccine.2016.08.039. PubMed PMID: 27593157.
4. Ebstein F, Textoris-Taube K, Keller C, Golnik R, Vigneron N, Van den Eynde BJ, Schuler-Thurner B, Schadendorf D, Lorenz FK, Uckert W, Urban S, Lehmann A, Albrecht-Koepke N, Janek K, Henklein P, Niewienda A, Kloetzel PM, **Mishto M**. Proteasomes generate spliced epitopes by two different mechanisms and as efficiently as non-spliced epitopes. ***Sci Rep. 2016*** Apr 6;6:24032. doi: 10.1038/srep24032. PubMed PMID: 27049119.
5. Platteel AC, **Mishto M**, Textoris-Taube K, Keller C, Liepe J, Busch DH, Kloetzel PM, Sijts AJ. CD8(+) T cells of Listeria monocytogenes-infected mice recognize both linear and spliced proteasome products. ***Eur J Immunol. 2016*** Feb 23. doi: 10.1002/eji.201545989. PubMed PMID: 26909514
6. Textoris-Taube K, Keller C, Liepe J, Henklein P, Sidney J, Sette A, Kloetzel PM, **Mishto M**. The T210M substitution in the HLA-A*02:01 gp100 epitope strongly affects overall proteasomal cleavage site usage and antigen processing. ***J Biol Chem.*** **2015** Dec 18;290(51):30417-28. doi: 10.1074/jbc.M115.695189. PMID: 26909514.
7. Liepe J, Holzhütter HG, Bellavista E, Kloetzel PM, Stumpf MP, **Mishto M**. Quantitative time-resolved analysis reveals intricate, differential regulation of standard- and immuno-proteasomes. ***eLife*****. 2015** Sep 22;4. doi: 10.7554/eLife.07545. PubMed PMID: 26393687
8. **Mishto M**, Raza ML, de Biase D, Ravizza T, Vasuri F, Martucci M, Keller C, Bellavista E, Buchholz TJ, Kloetzel PM, Pession A, Vezzani A, Heinemann U. The immunoproteasome β5i subunit is a key contributor to ictogenesis in a rat model of chronic epilepsy. ***Brain Behav Immun*****. 2015** Oct;49:188-96. doi: 10.1016/j.bbi.2015.05.007. PubMed PMID: 26044087.
9. Bellavista E, Martucci M, Vasuri F, Santoro A, **Mishto M**, Kloss A, Capizzi E, Degiovanni A, Lanzarini C, Remondini D, Dazzi A, Pellegrini S, Cescon M, Capri M, Salvioli S, D'Errico-Grigioni A, Dahlmann B, Grazi GL, Franceschi C. Lifelong maintenance of composition, function and cellular/subcellular distribution of proteasomes in human liver. ***Mech Ageing Dev.*** **2014** Sep 30. pii: S0047-6374(14)00066-9. doi: 10.1016/j.mad.2014.09.003. PubMed PMID: 25265087.
10. **Mishto M**, Liepe J, Textoris-Taube K, Keller C, Henklein P, Weberruß M, Dahlmann B, Enenkel C, Voigt A, Kuckelkorn U, Stumpf MP, Kloetzel PM. Proteasome isoforms exhibit only quantitative differences in cleavage and epitope generation. ***Eur J Immunol*****. 2014** Sep 17. doi: 10.1002/eji.201444902. PubMed PMID: 25231383.
11. Liepe J, Holzhütter HG, Kloetzel PM, Stumpf MP, **Mishto M**. Modelling proteasome and proteasome regulator activities. ***Biomolecules.*** **2014** Jun 20;4(2):585-99. doi: 10.3390/biom4020585. PubMed PMID: 24970232
12. Grignolio A*, **Mishto M***, Faria AM, Garagnani P, Franceschi C, Tieri P. Towards a Liquid Self: How Time, Geography, and Life Experiences Reshape the Biological Identity. ***Front Immunol*****. 2014** Apr 9;5:153. eCollection 2014. PubMed PMID: 24782860. * Authors equally contributed.
13. Bellavista E, Santoro A, Galimberti D, Comi C, Luciani F, **Mishto M**. Current understanding on the role of standard and immunoproteasomes in inflammatory/immunological pathways of multiple sclerosis. ***Autoimmune Dis*****. 2014**;2014:739705. doi: 10.1155/2014/739705. Epub 2014 Jan 2. Review. PubMed PMID: 24523959; PubMed Central PMCID: PMC3910067.
14. Gohlke S, **Mishto M**, Textoris-Taube K, Keller C, Giannini C, Vasuri F, Capizzi E, D'Errico-Grigioni A, Kloetzel PM, Dahlmann B. Molecular alterations in proteasomes of rat liver during aging result in altered proteolytic activities. ***Age*****. 2014**;36(1):57-72. PubMed PMID: 23690132.
15. Giannini C, Kloß A, Gohlke S, **Mishto M**, Nicholson TP, Sheppard PW, Kloetzel PM, Dahlmann B. Poly-Ub-Substrate-Degradative Activity of 26S Proteasome Is Not Impaired in the Aging Rat Brain.

***PLoS One*. 2013** May 7;8(5):e64042. doi: 10.1371/journal.pone.0064042. Print 2013. PubMed PMID: 23667697.

16. Bellavista E, Andreoli A, Parenti MD, Martucci M, Santoro A, Salvioli S, Capri M, Baruzzi A, Del Rio A, Franceschi C and **Mishto M**. Immunoproteasome in cancer and neuropathologies: a new therapeutic target? ***Curr Pharm Design*. 2013** Curr Pharm Des. 2013;19(4):702-18. PMID: 23016859.
17. **Mishto M**, Goede A, Textoris-Taube K, Keller C, Janek K, Henklein P, Niewienda A, Kloss A, Gohlke S, Dahlmann B, Enenkel C, Kloetzel PM. Driving forces of proteasome-catalyzed peptide splicing in yeast and humans. ***Mol Cell Proteomics*. 2012** Oct;11(10):1008-23.
18. **Mishto M**, Ligorio C, Bellavista E, Martucci M, Santoro A, Giulioni M, Marucci G, Franceschi C. Immunoproteasome expression is induced in mesial temporal lobe epilepsy. ***Biochem Biophys Res Commun*. 2011** Apr 29;408(1):65-70. Epub 2011 Mar 30. PubMed PMID: 21458417.
19. Tieri P, Grignolio A, Zaikin A, **Mishto M**, Remondini D, Castellani GC, Franceschi C. Network, degeneracy and bow tie integrating paradigms and architectures to grasp the complexity of the immune system. ***Theor Biol Med Model*. 2010** Aug 11;7:32. PubMed PMID: 20701759.
20. Santoro A, Balbi V, Balducci E, Pirazzini C, Rosini F, Tavano F, Achilli A, Siviero P, Minicuci N, Bellavista E, **Mishto M**, Salvioli S, Marchegiani F, Cardelli M, Olivieri F, Nacmias B, Chiamenti AM, Benussi L, Ghidoni R, Rose G, Gabelli C, Binetti G, Sorbi S, Crepaldi G, Passarino G, Torroni A, Franceschi C. Evidence for sub-haplogroup h5 of mitochondrial DNA as a risk factor for late onset Alzheimer's disease. ***PLoS One*. 2010** Aug 6;5(8). pii: e12037. PubMed PMID: 20700462.
21. Liepe J*, **Mishto M***, Textoris-Taube K, Janek K, Keller C, Henklein P, Kloetzel PM, Zaikin A. The 20S Proteasome Splicing Activity Discovered by SpliceMet. ***PLoS Comput Biol*. 2010** Jun 24;6(6):e1000830. PubMed PMID: 20613855. * Authors equally contributed.
22. Vasuri F, Capizzi E, Bellavista E, **Mishto M**, Santoro A, Fiorentino M, Capri M, Cescon M, Grazi GL, Grigioni WF, D'Errico-Grigioni A, Franceschi C. Studies on immunoproteasome in human liver. Part I: Absence in fetuses, presence in normal subjects, and increased levels in chronic active hepatitis and cirrhosis. ***Biochem Biophys Res Commun*. 2010** May 26. PubMed PMID: 20510670.
23. Cevenini E, Bellavista E, Tieri P, Castellani G, Lescai F, Francesconi M, **Mishto M**, Santoro A, Valensin S, Salvioli S, Capri M, Zaikin A, Monti D, de Magalhães JP, Franceschi C. Systems biology and longevity: an emerging approach to identify innovative anti-aging targets and strategies. ***Curr Pharm Des.* 2010**;16(7):802-13. PubMed PMID: 20388091.
24. **Mishto M**, Bellavista E, Ligorio C, Textoris-Taube K, Santoro A, Giordano M,D'Alfonso S, Listì F, Nacmias B, Cellini E, Leone M, Grimaldi LM, Fenoglio C, Esposito F, Martinelli-Boneschi F, Galimberti D, Scarpini E, Seifert U, Amato MP, Caruso C, Foschini MP, Kloetzel PM, Franceschi C. Immunoproteasome LMP2 60HH variant alters MBP epitope generation and reduces the risk to develop multiple sclerosis in Italian female population. ***PLoS One*. 2010** Feb 18;5(2):e9287. PubMed PMID: 20174631.
25. Santoro A, Siviero P, Minicuci N, Bellavista E, **Mishto M**, Olivieri F, Marchegiani F, Chiamenti AM, Benussi L, Ghidoni R, Nacmias B, Bagnoli S, Ginestroni A, Scarpino O, Feraco E, Gianni W, Cruciani G, Paganelli R, Di Iorio A, Scognamiglio M, Grimaldi LM, Gabelli C, Sorbi S, Binetti G, Crepaldi G, Franceschi C. Effects of donepezil, galantamine and rivastigmine in 938 italian patients with Alzheimer's disease: a prospective, observational study. ***CNS Drugs*. 2010** Feb 1;24(2):163-76. PubMed PMID: 20088621.
26. Mammano E, Belluco C, Bonafé M, Olivieri F, Mugianesi E, Barbi C, **Mishto M**, Cosci M, Franceschi C, Lise M, Nitti D. Association of p53 polymorphisms and colorectal cancer: Modulation of risk and progression. ***Eur J Surg Oncol.* 2009** Apr; 35(4): 415-419. PMID: 18468835 DOI: 10.1016/j.ejso.2008.03.003
27. **Mishto M.**, Luciani F., Holzhütter H.G., Bellavista E., Santoro A., Textoris-Taube K., Franceschi C., Kloetzel P.M. and Zaikin A. Proteasome Modeling Algorithm to predict *in vitro* kinetics of 20S proteasome degradation. ***J Mol Biol* 2008** Apr 11;377(5):1607-17.
28. Bellavista E., **Mishto M.**, Santoro A., Bertoni-Freddari C., Sessions R.B. and Franceschi C. Immunoproteasome in *Macaca fascicularis*: no age-dependent modification of abundance and activity in the brain and insight into an *in silico* structural model. ***Rejuvenation Res* 2008** Feb;11(1):73-82.
29. **Mishto M.**, Bellavista E., Santoro A. and Franceschi C. Proteasome modulation in brain: a new target for anti-ageing drugs? ***Central Nervous System – Medicinal Chemistry* 2007** Dec; 7 (4): 236-240.
30. Salvioli S, Olivieri F, Marchegiani F, Cardelli M, Santoro A, Bellavista E, **Mishto M**, Invidia L, Capri M, Valensin S, Sevini F, Cevenini E, Celani L, Lescai F, Gonos E, Caruso C, Paolisso G, De Benedictis G, Monti D, Franceschi C. Genes, ageing and longevity in humans: Problems, advantages and perspectives. ***Free Radic Res.* 2006** Dec;40(12):1303-23.

31. **Mishto M**, Santoro A, Bellavista E, Sessions R, Textoris-Taube K, Dal Piaz F, Carrard G, Forti K, Salvioli S, Friguet B, Kloetzel PM, Rivett AJ and Franceschi C. A structural model of 20S immunoproteasomes: effect of LMP2 codon 60 polymorphism on expression, activity, intracellular localization and insight into the regulatory mechanisms. ***Biological Chemistry* 2006** April; 387:417-429.
32. **Mishto M**, Bellavista E, Santoro A, Stolzing A, Ligorio C, Nacmias B, Spazzafumo L, Chiappelli M, Licastro F, Sorbi S, Pession A, Ohm T, Grune T and Franceschi C. Immunoproteasome and LMP2 polymorphism in aged and Alzheimer's disease brains. ***Neurobiology of Ageing* 2006** Jan; 27 (1): 54-66.
33. Luciani F, Kesmir C, **Mishto M**, Or-Guil M, Deboer R. A mathematical model of protein degradation by the proteasome. ***Biophys J*. 2005** Apr; 88(4):2422-32.
34. Bonafe M, Salvioli S, Barbi C, Trapassi C, Tocco F, Storci G, Invidia L, Vannini I, Rosii M, Marzi E, **Mishto M**, Capri M, Olivieri F, Antonicelli R, Memo M, Uberti D, Nacmias B, Sorbi S, Monti D and Franceschi C. The different apoptotic potential of the p53 codon 72 alleles increases with age and modulates *in vivo* ischaemia-induced cell death. ***Cell Death Differ* 2004** Sep; 11(9):962-73.
35. **Mishto M**, Santoro A, Bellavista E, Bonafe M, Monti D, Franceschi C. Immunoproteasomes and immunosenescence. ***Ageing Res Rev*. 2003** Oct;2(4):419-32.
36. Bonafe M, Salvioli S, Barbi C**, Mishto M**, Trapassi C, Gemelli C, Storci G, Olivieri F, Monti D, Franceschi C. p53 codon 72 genotype affects apoptosis by cytosine arabinoside in blood leukocytes. ***Biochem Biophys Res Commun*. 2002** Dec; 299(4):539-41.
37. **Mishto M.,** Bonafè M., Salvioli S., Olivieri F., and Franceschi C. Age dependent impact of LMP polymorphisms on TNFa-induced apoptosis in human peripheral blood mononuclear cells. ***Exp Gerontol,* 2002**; 37 (2-3): 301-308.
38. Griseri P, **Mishto M**, Priolo M, Pesce B, Romeo G, Ravazzolo R and Ceccherini I. An intronic nucleotide variant of the *RET* proto-oncogene causes Hirschsprung disease by interfering with RNA splicing. ***Gene Funct Dis,* 2000**; 5-6, 184-188.

Book chapters

1. **Mishto M**., Bellavista E., Dyllick-Brenzinger M., Dahlmann B., Franceschi C. (2009): Role of immunoproteasomes in aging and neurodegenerative diseases. *The Ubiquitin Proteasome System In Nervous System: From Physiology To Pathology - 2008 update*. Edited by Di Napoli, M. and Wojcik C. NOVA Publishers, New York, US.
2. **Mishto M.**, Luciani F., Holzhütter H.G., Bellavista E., Santoro A., Textoris-Taube K., Kloetzel P.M., Zaikin A. and Franceschi C. (2008): ProteaMAlg: a Proteasome Modelling Algorithm to address the complexity of intracellular protein degradation kinetics. *Biocomplexity at the cutting edge of Physics, System Biology and Humanities.* Bologna University Press.