
BIOGRAPHICAL SKETCH

NAME: Magda Gioia

POSITION TITLE: Associate Professor (Biochemistry (BIOS-07/A)

Department of Clinical Science and Translational Medicine, University of Rome “ Tor Vergata”, ITALY

EDUCATION

INSTITUTION AND LOCATION	DEGREE	Completion year	FIELD OF STUDY
University of Rome, “ Roma Tre” ITALY	Master Degree	2000	Molecular Biology
University of Tuscia, Viterbo, ITALY	State exam for biologists	2003	Biology
University of Rome “ Tor Vergata”, ITALY	Ph Degree	2005	Biochemistry and Molecular Biology
Italian Ministry of University and Research (MUR)	Associate Professor ASN Scientific National Qualification	2012	Biochemistry (BIOS-07/A)
Italian Ministry of University and Research (MUR)	Full Professor ASN Scientific National Qualification	2022	Biochemistry (BIOS-07/A)

A. Personal Statement

Professor Gioia has a long-standing scientific background in cellular biochemistry, with extensive expertise in systems biology. Her research has primarily focused on the structural and functional characterization of metalloproteins and enzymes. Her research journey began with a strong foundation in enzymology with the characterization of the molecular mechanisms underlying extracellular matrix degradation, tissue remodeling, and osteogenesis. Over the years, her work has evolved to include innovative aspects such as the interdisciplinary field of mechanobiology of bone and tumor tissues, cellular redox status, and responses to mechanical stress, with applications ranging from microgravity simulation to stress models in osteoblastic cells and osteosarcomas.

- She has carried out postdoctoral research and scientific missions at renowned international institutions, including the University of British Columbia (Canada) and Universidade Nova de Lisboa (Portugal), contributing to projects in advanced proteomics, degradomics, biophysics, and bioinformatics within highly interdisciplinary contexts.
- She has participated in several international research projects and has been actively involved in collaborative initiatives funded by the Italian Ministry of Health. She has also served as Principal

Investigator on several national research projects and is currently the Principal Investigator of a project titled “*Molecular Cell Changes Underlying Morpho-Pathological Alterations in Biotic Specimens.*”

- Alongside her research activities, she has developed a strong teaching portfolio, delivering graduate-level courses in Chemistry and Biochemistry within both Italian and international programs, including in Albania. She also contributes to science communication and education through the organization of international conferences and by supervising Master's theses in *Medical Biotechnology* as well as PhD students in *Tissue Engineering and Remodeling Biotechnologies for Body Function*
- Professor Gioia is the author of 48 peer-reviewed publications, with an H-index of 22 and over 1700 citations on Scopus, frequently serving as first, last, or corresponding author. Her current research is focused on cellular mechanobiology, particularly in the context of bone regeneration. She is actively involved in PRIN projects and research programs funded by national ministries and the Italian Space Agency, aimed at investigating cellular responses to mechanical stimuli and redox alterations in complex diseases.
- She serves as a reviewer for numerous international scientific journals and adopts a strongly translational and interdisciplinary approach. In the past five years, her research has centered on the integrated understanding of cellular mechanobiology, with the goal of providing new interpretative frameworks to understand and modulate pathological and regenerative processes in biological tissues

B. Positions, Scientific Appointments, and Honors

Throughout my career, I have held progressively advanced academic and research positions, both in Italy and internationally. These roles reflect a long-standing commitment to multidisciplinary biomedical research, with a focus on proteolysis, mechanobiology, redox biology, and translational oncology. I have received national and international recognition for the scientific quality of my work, including awards for both research output and scientific presentation. I have also actively contributed to collaborative research programs funded by the Italian Ministry of Health and have served as Principal Investigator on several competitive national research projects.

TRAINING

INSTITUTION AND LOCATION	TRAINING	period	FIELD OF STUDY
Universidade Nova de Lisboa, Lisbon PORTUGAL	Short term mission	2005	Bioinformatics
University of British Columbia Vancouver CANADA	Post Doc fellow	2005-2007	Protease degradomics
University of Rome “Tor Vergata”, ITALY	Permanent position as research technician with research responsibilities	2007-2016	Extracellular matrix proteolysis
University of Rome “Tor Vergata”, ITALY	Tenure track researcher (Type B)	2007-2019	System biology and mechanobiology
University of Rome “Tor Vergata”, ITALY	Associate Professor	2019-until now	Mechanobiology

C. Contributions to Science

I have established a multidisciplinary research profile at the interface of:

- **Biophysics** (mechanobiology) (research chemistry awards 2024)
- **Biochemistry** (proteolysis, redox biology)
- **Systems biology** (proteomics, metabolomics)
- **Translational oncology and bone biology**

my contributions are characterized by:

- **Depth in enzymatic mechanisms and matrix biology**
- **Comprehensive expertise in cancer biology, redox signaling, and mechanotransduction**
- **Innovation in experimental approaches and proteomic methodologies**

Prizes and Awards

2024: *European Journal of Cell Biology*. 104 (2025) 151469. <https://doi.org/10.1016/j.ejcb.2024.151469> has been selected for the **Best Researcher Award 2024** “

2006: Awarded for **Best Scientific Defense** during Presentation at the Pacific Coast Protease Workshop, Palm Springs, California, USA

Selected Peer-reviewed Publications grouped in Five Main Research Areas:

1. Mechanobiology in Cancer and Bone

Impact: My research has helped define the emerging field of *cancer mechanobiology*, especially by integrating **biophysical cues** with **metabolic and redox signaling** in tumor cells.

- Buglione A, Rodriguez DB, Dogali S, Alloisio G, Ciaccio C, Luce M, Marini S, Cricenti A, Campagnolo L, **Gioia M.**, A ‘Spicy’ Mechanotransduction Switch: Capsaicin-Activated TRPV1 Receptor Modulates Osteosarcoma Cell Behavior and Drug Sensitivity *International Journal of Molecular Sciences*. Accepted. Preprints DOI: 10.20944/preprints202508.1007.v1
- Buglione A, Alloisio G, Ciaccio C, Rodriguez DB, Dogali S, Luce M, Marini S, Cricenti A, **Gioia M.**, GsMTx-4 Venom Toxin Antagonizes Biophysical Modulation of Metastatic Traits in Human Osteosarcoma Cells Currently under review with the *European Journal of Cell Biology* (EJCB-D-24-00206).
- Fanelli G, Alloisio G, Lelli V, Marini S, Rinalducci S, **Gioia M** (2024). Mechano-induced cell metabolism disrupts the oxidative stress homeostasis of SAOS-2 osteosarcoma cells. *FRONTIERS IN MOLECULAR BIOSCIENCES*, vol. Volume 10 - 2023, ISSN: 2296-889X, doi: 10.3389/fmolb.2023.1297826
- Alloisio G, Rodriguez DB, Luce M, Ciaccio C, Marini S, Cricenti A, **Gioia M.** Cyclic Stretch-Induced Mechanical Stress Applied at 1 Hz Frequency Can Alter the Metastatic Potential Properties of SAOS-2 Osteosarcoma Cells. *Int J Mol Sci*. 2023 Apr 22;24(9):7686. doi: 10.3390/ijms24097686. PMID: 37175397; PMCID: PMC10178551.
- Alloisio G, Ciaccio C, Fasciglione GF, Tarantino U, Marini S, Coletta M, **Gioia M.** Effects of Extracellular Osteoanabolic Agents on the Endogenous Response of Osteoblastic Cells. *Cells*. 2021 Sep 10;10(9):2383. doi: 10.3390/cells10092383. PMID: 34572032; PMCID: PMC8471159.
- **Gioia M**, Michaletti A, Scimeca M, Marini M, Tarantino U, Zolla L, Coletta M. Simulated microgravity induces a cellular regression of the mature phenotype in *human* primary osteoblasts. *Cell Death Discov*. 2018 May 10;4:59. doi: 10.1038/s41420-018-0055-4. eCollection 2018.
- Michaletti A, **Gioia M**, Tarantino U, Zolla L. Effects of microgravity on osteoblast mitochondria: a proteomic and metabolomics profile. *Scientific Reports*. 2017 Nov 13;7(1):15376. doi: 10.1038/s41598-017-15612-1.

2. Redox Biology and Antioxidant Mechanisms

Impact: advances in the understanding of **redox-modulating therapeutics**, potentially guiding **natural product-based strategies** in oncology.

- Cimmino A, **Gioia M**, Clementi ME, Faraoni I, Marini S, Ciaccio C. Polydatin-Induced Shift of Redox Balance and Its Anti-Cancer Impact on Human Osteosarcoma Cells. *Curr Issues Mol Biol*. 2024 Dec 31;47(1):21. doi: 10.3390/cimb47010021. PMID: 39852136; PMCID: PMC11764470.
- Cimmino A, Fasciglione GF, **Gioia M**, Marini S, Ciaccio C. Multi-Anticancer Activities of Phytoestrogens in Human Osteosarcoma. *Int J Mol Sci*. 2023 Aug 28;24(17):13344. doi: 10.3390/ijms241713344. PMID: 37686148; PMCID: PMC10487502.
- Venza N, Alloisio G, **Gioia M**, ...Danesi C, Laganà G. (2022). Saliva Analysis of pH and Antioxidant Capacity in Adult Obstructive Sleep Apnea Patients. *INTERNATIONAL RESEARCH JOURNAL OF PUBLIC AND ENVIRONMENTAL HEALTH*, ISSN: 2360-8803
- Rodríguez J, Di Pierro D, **Gioia M**, Monaco S, Delgado R, Coletta M, Marini S. *Effects of a natural extract from Mangifera indica L. and its active compound, mangiferin, on energy state and lipid peroxidation of red blood cells*. *Biochim Biophys Acta*. 2006 Sep;1760(9):1333-42. Epub 2006 May 4.

3. Proteomics and Systems Biochemistry

You were involved early in **quantitative proteomics**, collaborating with thought leaders like C.M. Overall. **Impact:** I contributed to the foundational toolkit of **protease systems biology**, which has applications in cancer, infection, and aging.

- Kleifeld O, Doucet A, auf dem Keller U, Prudova A, **Gioia M**, Kizhakkedathu J, Overall CM. *System-Wide Proteomic Identification of protease Cleavage Products by Terminal Amine Isotopic labelling of Substrates*. *Nature Protocols*. **2011** Sep 22;6(10):1578-611.
- auf dem Keller U, Prudova A, **Gioia M**, Butler GS, Overall CM. *A statistics-based platform for quantitative N-terminome analysis and identification of protease cleavage products*. *Mol Cell Proteomics*. **2010** May;9(5):912-27. Epub 2010 Mar 20.
- **Gioia M**, Foster LJ, Overall CM. *Cell-based identification of natural substrates and cleavage sites for extracellular proteases by SILAC proteomics*. *Methods Mol Biol*. **2009**; 539:131-53.

4. Proteolytic enzymology

Impact: My work has influenced both **basic enzymology** and **applied biomedical research**, especially in understanding how **proteolysis controls cell migration, cancer invasion, and tissue remodeling**.

- **Gioia M**, Ciaccio M, Calligari P, De Simone G, Sbardella D, Tundo G, Fasciglione GF, Di Pierro D, Di Masi A, Bocedi A, Ascenzi P, Coletta M. Role of proteolytic enzymes in the COVID-19 infection and promising therapeutic approaches. *Biochemical Pharmacology*. 2020.
- **Gioia M**, Fasciglione GF, Sbardella D, Sciandra F, Casella M, Camerini S, Crescenzi M, Gori A, Tarantino U, Cozza P, Brancaccio A, Coletta M, Bozzi M. The enzymatic processing of α -dystroglycan by MMP-2 is controlled by two anchoring sites distinct from the active site. *PLoS One*. 2018 Feb 15;13(2):e0192651. doi: 10.1371/journal.pone.0192651. eCollection 2018.
- Tundo GR, Sbardella D, Ciaccio C, Grasso G, **Gioia M**, Coletta A, Polticelli F, Di Pierro D, Milardi D, Van Endert P, Marini S, Coletta M. Multiple functions of insulin-degrading enzyme: a metabolic crosslight? *Crit Rev Biochem Mol Biol*. 2017 Oct;52(5):554-582. doi: 10.1080/10409238.2017.1337707. Epub 2017 Jun 21. Review

- **Gioia M** Luigi Tomao T, Sbardella D, Chiara C, Tundo GF, Di Masi A, Fasciglione GF, Marini S, Cozza P, Ascenzi P, Coletta M. Enzyme catalysis: the case of the prostate-specific antigen. *Rendiconti Lincei* (ISSN: 2037-4631, ESSN: 1720-0776) Scienze Fisiche e Naturali 8 marzo 2017.

- **Gioia M**, Vindigni G, Testa B, Raniolo S, Fasciglione GF, Coletta M and Biocca S *Membrane cholesterol modulates LOX-1 shedding in endothelial cells*. *PLoS One*. **2015** Oct 23;10(10):e0141270.
- Sbardella D, Tundo GR, Sciandra F, Bozzi M, **Gioia M**, Ciaccio C, Tarantino U, Brancaccio A, Coletta M, Marini S. *Proteasome Activity Is Affected by Fluctuations in Insulin-Degrading Enzyme Distribution*. *PLoS One*. **2015** Jul 17;10(7):e0132455.
- Sbardella D, Sciandra F, **Gioia M**, Marini S, Gori A, Giardina B, Tarantino U, Coletta M, Brancaccio A, Bozzi M. *α -dystroglycan is a potential target of matrix metalloproteinase MMP-2*. *Matrix Biol*. **2015** Jan;41:2-7.

- Sbardella D, Tundo GR, Fasciglione GF, **Gioia M**, Bisicchia S, Gasbarra E, Ippolito E, Tarantino U, Coletta M, Marini S. *Role of metalloproteinases in tendon pathophysiology* Mini Rev Med Chem. **2014**;14(12):978-87. Review.
- Tomao L, Sbardella D, **Gioia M**, Di Masi A, Marini S, Ascenzi P, Coletta M. *Characterization of the prostate-specific antigen (PSA) catalytic mechanism: a pre-steady-state and steady-state study*. PLoS One. **2014** Jul 28;9(7):e102470
- Sbardella D, Inzitari R, Iavarone F, **Gioia M**, Marini S, Sciandra F, Castagnola M, Van den Steen PE, Opdenakker G, Giardina B, Brancaccio A, Coletta M, Bozzi M. *Enzymatic processing by MMP-2 and MMP-9 of wild-type and mutated mouse β -dystroglycan*. IUBMB Life. **2012** Dec;64(12):988-94.
- Petrera A, Amstutz B, **Gioia M**, Hähnlein J, Baici A, Selchow P, Ferraris DM, Rizzi M, Sbardella D, Marini S, Coletta M, Sander P. *Functional characterization of the Mycobacterium tuberculosis zinc metalloproteinase Zmp1 and identification of potential substrates*. Biol Chem. **2012** Jul;393(7):631-40.
- Fasciglione GF, **Gioia M**, Tsukada H, Liang J, Iundusi R, Tarantino U, Coletta M, Pourmotabbed T, Marini S. *The collagenolytic action of MMP-1 is regulated by the interaction between the catalytic domain and the hinge region*. J Biol Inorg Chem. **2012** Apr;17(4):663-72.
- Sbardella D, Fasciglione GF, **Gioia M**, Ciaccio C, Tundo GR, Marini S, Coletta M. *Human matrix metalloproteinases: an ubiquitous class of enzymes involved in several pathological processes*. Mol Aspects Med. **2012** Apr;33(2):119-208. Review.
- **Gioia M**, Fasciglione GF, Monaco S, Iundusi R, Sbardella D, Marini S, Tarantino U, and Coletta M. *PH dependence of the enzymatic processing of collagen I by MMP-1 (fibroblast collagenase), MMP-2 (gelatinase A) and MMP-14 ectodomain*. Biological Inorganic Chemistry. **2010** Nov;15(8):1219-32.
- Aureli L, **Gioia M**, Cerbara I, Monaco S, Fasciglione GF, Marini S, Ascenzi P, Topai A, Coletta M. *Structural bases for substrate and inhibitor recognition by matrix metalloproteinases*. Curr Med Chem. **2008**;15(22):2192-222. Review.
- **Gioia M**, Monaco S, Fasciglione GF, Coletti A, Modesti A, Marini S, Coletta M. *Characterization of the mechanisms by which gelatinase A, neutrophil collagenase, and membrane-type metalloproteinase MMP-14 recognize collagen I and enzymatically process the two α -chains*. J Mol Biol. 2007 May 11;368(4):1101-13. Epub 2007 Mar 2.
- Monaco S, **Gioia M**, Rodriguez J, Fasciglione GF, Di Pierro D, Lupidi G, Krippahl L, Marini S, Coletta M. *Modulation of the proteolytic activity of matrix metalloproteinase-2 (gelatinase A) on fibrinogen*. Biochem J. 2007 Mar 15;402(3):503-13.
- Monaco S, Sparano V, **Gioia M**, Sbardella D, Di Pierro D, Marini S, Coletta M. *Enzymatic processing of collagen IV by MMP-2 (gelatinase A) affects neutrophil migration and it is modulated by extracatalytic domains*. Protein Sci. 2006 Dec;15(12):2805-15. Epub 2006 Nov 6.
- Marini S, Fasciglione GF, **Gioia M**, Di Pierro D and Coletta M. *Structure-function relationships in matrix metalloproteinases*. Recent Res. Devel Biophys., 2 (2003) 173-190 ISBN: 81-7895-087-1
- Lupidi G, Angeletti M, Eleuteri AM, Fioretti E, Marini S, **Gioia M**, Coletta M. *Aluminium modulation of proteolytic activities*. Coordination Chemistry Reviews 228 (2002) 263-269.
- **Gioia M**, Fasciglione F, Marini S, D'Alessio S, Dickmann O, Piper M, Politi V, Tschesche H, Coletta M. *Modulation of the catalytic activity of neutrophil collagenase MMP-8 on bovine collagen I. Role of the activation cleavage and of the hemopexin-like domain*. The Journal of Biological Chemistry Vol. 277, No. 26 Issue of June 28, pp. 23123-23130, 2002.
- Bozzi M, Inzitari R, Sbardella D, Monaco S, Pavoni E, **Gioia M**, Marini S, Morlacchi S, Sciandra F, Castagnola M, Giardina B, Brancaccio A, Coletta M. *Enzymatic processing of beta-dystroglycan recombinant ectodomain by MMP-9: identification of the main cleavage site*. IUBMB Life. **2009** Dec;61(12):1143-52.
- **Gioia M**, Monaco S, Van Den Steen PE, Sbardella D, Grasso G, Marini S, Overall CM, Opdenakker G, Coletta M. *The collagen binding domain of gelatinase A modulates degradation of collagen IV by gelatinase B*. J Mol Biol. **2009** Feb 20;386(2):419-34. Epub 2008 Dec 14.
- Ciaccio C, Tundo GR, Grasso G, Spoto G, Marasco D, Ruvo M, **Gioia M**, Rizzarelli E, Coletta M. *Somatostatin: a novel substrate and a modulator of insulin-degrading enzyme activity*. J Mol Biol. **2009** Feb 6;385(5):1556-67. Epub 2008 Nov 25.

5. Hemoprotein Biochemistry

Impact: these work deepen our understanding of **heme-protein dynamics and their physiological regulation**, particularly in the context of **oxidative signaling and heme transport**.

- Ascenzi P, De Simone G, Pasquadibisceglie A, **Gioia M**, Coletta M. Kinetic inequivalence between α and β subunits of ligand dissociation from ferrous nitrosylated human haptoglobin:hemoglobin complexes. A comparison with O_2 and CO dissociation. *J Inorg Biochem.* 2021 Jan;214:111272. doi: 10.1016/j.jinorgbio.2020.111272. Epub 2020 Oct 16. PMID: 33129126. scopus: 2-s2.0-85093973127
- Ascenzi P, di Masi A, De Simone G, **Gioia M**, Coletta M. Fluoride and azide binding to ferric human hemoglobin:haptoglobin complexes highlights the ligand-dependent inequivalence of the α and β hemoglobin chains. *J Biol Inorg Chem.* 2019 March. doi: 10.1007/s00775-019-01642-9
- Ascenzi P, De Simone G, Polticelli F, **Gioia M**, Coletta M. Reductive nitrosylation of ferric human hemoglobin bound to human haptoglobin 1-1 and 2-2. *J Biol Inorg Chem.* 2018 May;23(3):437-445. doi: 10.1007/s00775-018-1551-y. Epub 2018 Mar 31.
- Ascenzi P, Bocedi A, **Gioia M**, Fanali G, Fasano M, Coletta M. Warfarin inhibits allosterically the reductive nitrosylation of ferric human serum heme-albumin. *J Inorg Biochem.* 2017 Dec;177:63-75. doi: 10.1016/j.jinorgbio.2017.08.030. Epub 2017 Sep 5.
- Ascenzi P, Leboffe L, di Masi A, Trezza V, Fanali G, **Gioia M**, Coletta M, Fasano M. *Ligand binding to the FA3-FA4 cleft inhibits the esterase-like activity of human serum albumin.* PLoS One. **2015** Mar 19;10(3):e0120603.
- Ascenzi P, Marino M, Polticelli F, Coletta M, **Gioia M**, Marini S, Pesce A, Nardini M, Bolognesi M, Reeder BJ, Wilson MT. *Non-covalent and covalent modifications modulate the reactivity of monomeric mammalian globins.* Biochim Biophys Acta. **2013** Sep;1834(9):1750-6
- Ascenzi P, **Gioia M**, Fanali G, Coletta M, Fasano M. *Pseudo-enzymatic hydrolysis of 4-nitrophenyl acetate by human serum albumin: pH-dependence of rates of individual steps* Biochem Biophys Res Commun. **2012** Aug 3;424(3):451-5.
- Ascenzi P, Gullotta F, **Gioia M**, Coletta M, Fasano M. *O_2 -mediated oxidation of ferrous nitrosylated human serum heme-albumin is limited by nitrogen monoxide dissociation.* Biochem Biophys Res Commun. **2011** Mar 4;406(1):112-6.
- Ascenzi P, Bocedi A, Fasano M, **Gioia M**, Marini S, Coletta M. *Proton-linked subunit heterogeneity in ferrous nitrosylated human adult hemoglobin: an EPR study.* J Inorg Biochem. 2005 May;99(5):1255-9.
- De Sanctis G, Ciaccio C, Fasciglione GF, Fiorucci L, **Gioia M**, Sinibaldi F, Marini S, Santucci R, Coletta M. *Effect of axial coordination on the kinetics of assembly and folding of the two halves of horse heart cytochrome C.* J Biol Chem. 2004 Dec 17;279(51):52860-8. Epub 2004 Sep 22.
- Fanali G, De Sanctis G, **Gioia M**, Coletta M, Ascenzi P, Fasano M. *Reversible two-step unfolding of heme-human serum albumin: a (1)H-NMR relaxometric and circular dichroism study.* J Biol Inorg Chem. **2009** Feb;14(2):209-17. Epub 2008 Oct 21.

Oral presentations at international and national conferences in biochemical sciences:

- **2025:** GsMTx-4 Venom Toxin Antagonizes Biophysical Modulation of Metastatic Traits in human Osteosarcoma Cells presentazione orale al congresso internazionale advances in mechanobiology from mechanical sensing to cell and tissue response april 2025 Napoli italy
- **2020:** "Role of proteolytic enzymes in the COVID-19 infection and promising therapeutic approaches". Virtual FISV Symposium on SARS-CoV-2 Biology and COVID-19 *Current research and perspectives* 16 September 2020 (FISV Federazione Italiana Scienze della vita)
- **2019:** nazionale della chimica nei sistemi biologici. Titolo: "Effect of mechanical forces on osteogenesis in human primary cells "11-13 Settembre 2019, Siena.
- **2018:** presentazione orale al "2nd International Symposium on The future in regenerative Medicine, Ostuni, 2-4 Ottobre 2018; Titolo:"Evaluation of cell response to mechanical stimuli in human primary cells"
- **2017** alla giornata di studio di Biochimica e Biochimica Clinica Facoltà di Medicina e Chirurgia "A. Gemelli" ROMA 10 dicembre 2017; Titolo:"Simulated microgravity induces a cellular reversion of mature phenotype in human primary cells".
- **2017** CTIF centro interdipartimentale per le Teleinfrastrutture; dell'Università di Roma Tor Vergata; Roma, 8-10 Febbraio 2017 Titolo:"Investigation on regenerative response in human primary osteogenic cells upon mechanical stress".
- **2017:** International Symposium on The future in regenerative Medicine CIMER, Tuscania, Viterbo, 5-6 Ottobre 2017; Titolo:"Ex vivo, evaluation of regenerative response on human primary cells"
- **2016** workshop CTIF centro interdipartimentale per le Teleinfrastrutture dell'Università di Roma Tor Vergata; Roma, 4-8 marzo 2016. Titolo:"Investigation on regenerative response in human primary osteogenic cells: possible explotations for remote detection".

- **2006:** *Different aspects of the mechanism by which gelatinases collagenases and membrane-type metalloproteinases recognize collagen I and enzymatically process the two chains.* Pacific Coast Protease. Miracle Springs Resort & Spa Desert Hot Springs California, USA. Workshop April 21-24, 2006
- **2004:** *Modulation of the processing of natural substrates by gelatinase MMP-2 and MMP-14.* Second Chianti meeting on proteases Certosa di Pontignano Siena Italy May 16-20, 2004.
- **2002:** *Regulation of enzymatic processing of natural substrates by collagenases and gelatinase* Second European Symposium : ELASTIN 2002. Acquafredda di Maratea, 10-14 July 2002;
- **2001:** *Modulation of the catalytic activity of neutrophil collagenase MMP-8 on bovine collagen I. Role of the activation cleavage and of the hemopexin-like domain.* 1st Workshop on Pharmaco-Bio-Metallics Certosa di Pontignano- Siena 23-24 novembre 2001.