

Curriculum vitae Dr. Rita Grandori

Personal data

Born in Milan, Italy, on 20/02/1961

Gender: Female

Nationality: Italian

Speaks and writes: English, German and Italian

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ORCID 0000-0002-6683-9971

Present position

- Associate professor of *Biochemistry* (BIO/10) at the Department of Biotechnology and Biosciences, University of Milano-Bicocca, Milan, Italy (since 1 Nov 2005)
Address 1: Piazza della Scienza 2 (bldg BIOS, U3), 20126 Milan
Address 2: Via Raoul Follereau 3 (bldg KYTOS, U28), 20854 Veduggio al Lambro (MB)
- Scientific responsible of the Departmental Mass-Spectrometry service (since 2007)
- External Staff Member of the Computational Biomedicine Unit, Institute for Advanced Simulations (IAS-5 / INM-9), of the Forschungszentrum Juelich, Germany (since 2021)
- Member of the Doctorate College "Neurosciences", University of Milano-Bicocca (since 2023)
- External member of the Doctorate College "Nano-Analytics of Cellular Systems" (NanoCell) of the Institute of Biophysics, Johannes Kepler University, Linz, Austria (since 2014)
- Specialty Chief Editor of the *Protein Structure and Dynamics* section of the Journal *Frontiers in Biophysics* (since 2023)

Education and academic degrees

1980: Scientific high school diploma (full notes) Liceo Scientifico Paolo Frisi (MB)

1984: *Laurea* in Biological Sciences (magna cum laude), Department of General Physiology and Biochemistry, University of Milan. Thesis title: "Structural and catalytic properties of Glutamate Synthase from *Azospirillum brasiliense*".

1989: Doctorate in Cellular and Molecular Biology, Department of General Physiology and Biochemistry, University of Milan. Thesis title: "gp115, a membrane glycoprotein of yeast. Individuation of the biosynthetic pathway and initial genetic characterization" (no score was given).

1991: Specialization Certificate in Biotechnological Applications (magna cum laude) of the Advanced School in Biotechnology, Department of General Physiology and Biochemistry, University of Milan. Thesis title: "Analysis of the multigenic family encoding for the lipase of *Candida cylindracea*".

1996: University researcher, Princeton University, Princeton, NJ.

2002: Austrian National Habilitation in *Protein Science*, Faculty of Natural and Technical Sciences of the Johannes Kepler University. Thesis title: "An interdisciplinary approach to the investigation of protein structure, function and folding".

2005: Habilitation ("idoneità") in *Biochemistry*, University of Milano-Bicocca.

2008: Tenure as Associate Professor of *Biochemistry*, University of Milano-Bicocca.

2014: Italian National Habilitation as full professor of *Biochemistry* (BIO/10), renewed till 24/09/2024.

2017: Italian National Habilitation as full professor of *Analytical Chemistry* (CHIM/01), till 01/12/2023.

2017: Italian National Habilitation as full professor of *Applied Physics* (FIS/07), till 05/12/2023.

Previous appointments

03/1985-02/1989: Research Assistant, Department of General Physiology and Biochemistry, University of Milan.

03/1989-01/1991: Researcher of the Biotechnology Center (CTB), Rome, under detached service assignment at the Department of General Physiology, and Biochemistry, University of Milan.

09/1989-04/1992: Research Assistant, Department of General Physiology, and Biochemistry, University of Milan.

09/1990-01/1992: Visiting Researcher, European Molecular Biology Laboratory (EMBL), Heidelberg, Germany.

04/1992-06/1996: Post-doc, Department of Chemistry, Princeton University, Princeton, NJ.

07/1996-03/1997: Research Staff Member, Department of Chemistry, Princeton University under detached service assignment at CAME, Institute of Biochemistry, University of Salzburg, Austria.

11/1996-11/1997: Research Associate, Center for Applied Molecular Engineering (CAME), Institute of Biochemistry, University of Salzburg.

03/1998-02/2000: Research Associate, Institute of Chemistry, Johannes Kepler University.

11/1999-06/2005: Visiting professor, University of Milano-Bicocca

05/2000-04/2002: Project leader, Institute of Chemistry, Johannes Kepler University.

09/2002-08/2005: Group leader, Institute of Chemistry, Johannes Kepler University.

11/2005-10/2008: Appointed Associate Professor, Department of Biotechnology and Biosciences, University of Milano-Bicocca.

2006-2010: Visiting professor, Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste.

02/2006-03/2019: Scientific responsible of the Departmental Facility of Mass Spectrometry, Department of Biotechnology and Biosciences, University of Milano-Bicocca.

05/2006-09/2022: Visiting professor, Johannes Kepler University.

11/2008-present: Tenured Associate Professor, University of Milano-Bicocca.

Research grants

1992-1994: Postdoctoral fellowship of the Italian Government working at the Chemistry Department, Princeton University, Princeton, NJ.

Role in the project: Principal Investigator. 24 months.

1999-2000: Project n° 7 for international collaborations of the "Österreichischer akademischer Austauschdienst Büro für wissenschaftlich-technische Zusammenarbeit" (ÖAD) "Studies on the structure and folding of *Candida rugosa* lipase", exchange program with the Department of Biotechnology and Bioscience, University of Milano-Bicocca (Prof. Marina Lotti).

Role in the project: Principal Investigator. 24 months.

2000-2002: FWF project n° H147-CHE ("Charlotte-Bühler Habilitationsstipendium") Project title: "Investigation of protein structure, folding and stability by mass spectrometry techniques".

Role in the project: Principal Investigator. 24 months.

2002-2005: FWF project n° T135 ("Herta-Firnberg" position). Project title: "Folding and binding: protein behavior investigated by mass spectrometry".

Role in the project: Principal Investigator. 36 months.

2005-2006: Interregional European project REGINS n. 2E0006R "Stable enzymes as industrial catalysts (INBIO)".

Role in the project: Participant (PI: Prof. Marina Lotti). 18 months.

2006-2010: Grant of the University of Milano-Bicocca for a post-graduate research fellowship. Project title: "Analysis of phosphorylation states of Sic1 during the cell cycle of *Saccharomyces cerevisiae*".

Role in the project: Scientific Referent (recipient: Dr. Maria Šamalíková). 48 months.

2007-2013: Grant n° RBPR05ZK2Z of the Italian Government (FIRB) Italbionet -

Italian Bioinformatic Network.

Role in the project: Participant (PI: Prof. Lilia Alberghina). 72 months.

2009-2010: Grant of the Italian Government (PRIN) for the project “A multidisciplinary approach to the study of in vivo and vitro aggregation of polyglutamine-containing proteins. Role of molecular and environmental factors”.

Role in the project: Participant (PI: Prof. Paolo Tortora). 24 months.

2010-2012: Grant ASTIL of the Lombardy Region for the project “Diesel-Biotech: Biotechnological biodiesel production” Italian Regional Government in collaboration with Prof. Marina Lotti, University of Milano-Bicocca.

Role in the project: Participant (PI: Prof. Marina Lotti). 18 months.

2014-2017: Grant of the University of Milano-Bicocca for a post-graduate research fellowship.

Project title: “Aggregation mechanism of amyloid proteins involved in human pathologies”.

Role in the project: Scientific Referent (recipient: Dr. Carlo Santambrogio). 48 months.

2014-2017: Grant of the Italian Government (PRIN) for the project “From genomics to biotechnology: molecular mechanisms of cold adaptation and application of antifreeze proteins in industrial processes”.

Role in the project: Participant (PI: Prof. Marina Lotti). 36 months.

2014-2018: European COST Action BM1403 “Native Mass Spectrometry and Related Methods for Structural Biology”.

Role in the project: MC member representing Italy (PI: Prof. Frank Sobott).

2014-2018: European COST Action BM1405 “Non-globular proteins - from sequence to structure, function and application in molecular physiopathology (NGP-NET)”.

Role in the project: Participant (PI: Prof. Silvio Tosatto).

2015-2017: CARIPO grant n. 2014-0478 for integrated research in industrial biotechnology “Chemically and biochemically modified polysaccharides from leguminous plants with improved biostability and versatile properties for industrial applications (POLIBIO)”.

Role in the project: Unit Director (PI: Dr. Yves Galante). 28 months.

2017-2020: Grant of the Italian Government (FFABBR_NAT) for the project “GRANDORI-Fund for basic research activity”.

Role in the project: Principal Investigator. 37 months.

2019-2023: CARIPO grant “Osteocalcin in bone metabolism and aging: molecular mechanisms and biomarkers of the bone-energy crosstalk (OstMARK)”.

Role in the project: Participant (PI: Prof. Laura Cipolla). 36 months.

Conference and meeting organization

10/2005: Symposium "Mass Spectrometry of Biomolecules", First European Conference of Chemistry for Life Sciences, Rimini, Italy.

05/2007: Summer School “Materiali e Biomateriali Nanostrutturati”, Rome, Italy.

02/2008: Symposium "Mass-spectrometry tools for proteomics and protein science", University of Milano-Bicocca, Milan, Italy.

09/2015: Summer School on Organic Electronics: “From Semiconductor to Biomolecular Interfaces”, Villa Olmo, Como, Italy.

06/2019: “Native-MS” session, Annual ASMS Conference, Atlanta, GA.

09/2019: Summer School on “Intrinsically Disordered Proteins - From physical chemistry to pathogenic mechanisms”, Villa Grumello, Como, Italy.

Research experience and scientific interests (keywords)

Protein structure and dynamics

Protein folding, misfolding and aggregation

Protein-protein, protein-ligand and protein-nanoparticle interactions
Intrinsically disordered proteins
Neurodegeneration
Alpha-synuclein and Parkinson's disease
Protein engineering
Proteomics
Biomarker discovery
Native and ion-mobility mass spectrometry
Mechanism of protein ionization by electrospray
Analytical methods
Spectroscopic methods

International collaborations

Princeton University, NJ (Jannette Carey)
Juelich Research Center, Germany (Paolo Carloni, Giulia Rossetti)
University of South Florida, FL (Vladimir Uversky)
Martin-Luther University Halle-Wittenberg, Germany (Andrea Sinz)
Bielefeld University, Germany (Dario Anselmetti)
Johannes Kepler University, Austria (Norbert Mueller, Peter Hinterdorfer)
University of Leeds, UK (Frank Sobott)
CNRS Marseille, France (Sonia Longhi, Elisa Mileo, Evelina Gatti)
Autonomous University of Barcelona, Spain (Salvador Ventura)
Institute for Research in Biomedicine (IRB) Barcelona, Spain (Marta Vilaseca)
Catalan Institute of Nanoscience and Nanotechnology (ICN2) Barcelona, Spain (Victor Puentes)
University of South Bohemia, Czech Republic (Ruediger Etrich, Iva Kuta Smatanova)
University of Nova Gorica, Slovenia (Ario De Marco)
Neurocenter of Southern Switzerland, Bellinzona, Switzerland (Giorgia Melli)
International School for Advanced Studies (SISSA), Trieste, Italy (Giuseppe Legname)

Bibliometric indexes

- 119 accepted full journal articles
- 4 book chapters
- More than 100 contributions to international conferences
- More than 50 invited talks
- H index (Scopus August 2023): 34

Publications

Journal articles

- 1) Popolo L., Grandori R., Vai M., Lacana' E. and Alberghina L.* (1988)
"Immunochemical characterization of gp115, a yeast glycoprotein modulated by the cell cycle"
Eur. J. Cell. Biol. **47**, 173-180.
- 2) Grandori R., Vai M., Di Renzo M.F., Alberghina L. and Popolo L.* (1989)
"Identification of a protein cross-reacting with anti-phosphotyrosine antibodies in yeast insoluble cytoplasmic matrices"
Biochem. Biophys. Res. Comm. **160**, 887-896.
- 3) Vai M., Popolo L., Grandori R., Lacana' E. and Alberghina L.* (1990)

"The cell cycle modulated glycoprotein gp115 is one of the major yeast proteins containing glycosyl- phosphatidylinositol"

Biochem. Biophys. Acta - Protein Structure and Molecular Enzymology **1038**, 277-285.

4) Grandori R., Popolo L., Vai M. and Alberghina L.* (1990)

"cAMP promotes the synthesis in early G1 of gp115, a yeast glycoprotein containing glycosil-phosphatidylinositol"

J. Biol. Chem. **265**, 14315-14320.

5) Grandori R. and Sander C.* (1991)

"Identification by computer sequence analysis of transcriptional regulator proteins in *Dictiostelium discoideum* and *Serratia marcescens*"

Nucleic Acids Res. **19**, 2359-2362.

6) Longhi S., Fusetti F., Grandori R., Lotti M., Vanoni M. and Alberghina L.* (1992)

"Cloning and nucleotide sequences of two lipase genes from *Candida cylindracea*"

Biochem. Biophys. Acta - Gene Structure and Expression **1131**, 227-232.

7) Lotti M., Grandori R., Fusetti F., Longhi S., Brocca S., Tramontano A. and Alberghina L.* (1993) "Cloning and analysis of *Candida cylindracea* lipase sequences"

Gene **124**, 45-55.

8) Wu L., Grandori R. and Carey J* (1993)

"Autonomous subdomains in protein folding"

Prot. Sci. **3**, 369-371 (invited paper).

9) Grandori R.* and Carey J. (1994)

"Two highly homologous putative DNA-binding proteins from yeast and *E. coli*"

Trends in Biochem. Sci. **19**, 72.

10) Grandori R.* and Carey J. (1994)

"FMN or DNA binding?" (reply)

Trends in Biochem. Sci. **19**, 235.

11) Grandori R.* and Carey J. (1994)

"Six new candidate members of the alpha beta twisted open-sheet family detected by sequence similarity to flavodoxins"

Prot. Sci. **3**, 2185-2193.

12) Brocca S., Grandori R., Breviario D. and Lotti M.* (1995)

"Localization of lipase genes on *Candida rugosa* chromosomes"

Curr. Gen. **28**, 454-457.

13) Grandori R., Lavoie T.A., Pflumm M., Tian G., Niersbach H., Maas W.K., Fairman R. and Carey J.* (1995)

"The DNA-binding domain of the hexameric arginine repressor"

J. Mol. Biol. **254**, 150-162.

14) Grandori R.*, Struck K., Giovanielli K. and Carey J. (1997)

"A three-step PCR protocol for construction of chimeric proteins"

Protein Eng. **10**, 1099-1100.

15) Grandori R., Khalifah P., Boice J.A., Fairman R., Giovanielli K. and Carey J.* (1998)

"Biochemical characterization of WrbA, founding member of a new family of multimeric flavodoxins"

J. Biol. Chem. **273**, 20960-20966.

16) Grandori R.* (1998)

"Systematic fold recognition analysis of the sequences encoded by the genome of *Mycoplasma pneumoniae*"

Protein Eng. **11**, 1129-1135.

17) Grandori R., Schwarzinger, S. and Müller, N.* (1999)

"Cloning, overexpression and characterization of micro-myoglobin: a minimal heme-binding fragment"

Eur. J. Biochem. **267**, 1168-1172.

18) Madhu P.K., Grandori R., Mandal P.K., Hohenthanner K. and Müller N.* (2001)
"Geometry information from two-dimensional heteronuclear multiplet effects in paramagnetic proteins"

J. Biomol. NMR **20**, 31-37.

19) Grandori R.*, Matečko I., Mayr P. and Müller N. (2001)
"Probing protein stabilization by glycerol using electrospray mass spectrometry"

J. Mass Spectrom. **36**, 918-922.

20) Grandori R.*, Matečko I. and Müller N. (2002)
"Uncoupled analysis of secondary and tertiary protein structure by circular dichroism and electrospray ionization mass spectrometry"

J. Mass Spectrom. **37**, 191-196.

21) Grandori R.* (2002)

"Detecting equilibrium cytochrome *c* folding intermediates by electrospray ionization mass spectrometry: two partially folded forms populate the molten-globule state"

Protein Sci. **11**, 453-458 (accelerated communication).

22) Matečko I., Müller N. and Grandori R.* (2002)

"Analysis of protein folding equilibria by nano-electrospray-ionization mass spectrometry"

Spectroscopy – An international Journal **16**, 361-370 (invited paper).

23) Grandori R.* (2003)

"Origin of the conformation dependence of protein charge-state distributions in electrospray-ionization mass spectrometry"

J. Mass Spectrom. **38**, 11-15.

24) Grandori R.* (2003)

"Electrospray-ionization mass spectrometry for protein conformational studies"

Current Organic Chemistry **7**, 1589-1603 (invited review paper).

25) Šamalikova M and Grandori R.* (2003)

"Role of opposite charges in protein electrospray-ionization mass spectrometry"

J. Mass Spectrom., **38**, 941-947.

26) Šamalikova M. and Grandori R.* (2003)

"Protein charge -state distributions in electrospray-ionization mass spectrometry do not appear to be limited by the surface tension of the solvent"

J. Am. Chem. Soc., **125**, 13352-13353 (accelerated communication)

27) Šamalikova M., Matečko I., Müller N. and Grandori R.* (2004)

"Interpreting conformational effects in protein nano-ESI-MS spectra"

Anal. Bioanal. Chem., **378**, 1112-1123.

28) Šamalikova M. and Grandori R.* (2005)

"Testing the role of solvent surface tension in protein ionization by electrospray"

J. Mass Spectrom. **40**, 503-510.

29) Šamalikova M., Carey J. and Grandori R.* (2005)

"Assembly of the hexameric *Escherichia coli* arginine repressor investigated by nano-electrospray ionization time-of-flight mass spectrometry"

Rapid Commun. Mass Spectrom. **19**, 2549-2552.

30) Youhnovski N., Matečko I., Šamalikova M. and Grandori R.* (2005)

"Characterisation of cytochrome *c* unfolding by nano-electrospray-ionization and Time of Flight-Fouriertransform-ion cyclotron resonance- mass spectrometry"

Eur. J. Mass Spectrom. **11**, 519-524.

31) Wolfova J., Grandori R., Kozma E., Chatterjee N., Carey J. and Kuta Smatanova I.* (2005)
"Crystallization of the flavoprotein WrbA optimized by using additives and gels"

J. Crystal Growth **284**, 502-505.

32) Nöll G., Kozma E., Grandori R., Carey J., Schödl T., Hauska G. and Daub J.* (2006)

- "Spectroelectrochemical investigation of a flavoprotein with a flavin-modified gold electrode"
Langmuir **22**, 2378-2383.
- 33) Invernizzi G., Šamalikova M., Brocca S., Lotti M., Molinari H. and Grandori R.* (2006)
"Comparison of bovine and porcine β -lactoglobulin: a mass spectrometric analysis"
J. Mass Spectrom. **41**, 717-727.
- 34) Ji H.-F., Shen L., Carey J., Grandori R. and Zhang H.-Y.* (2006)
"Why WrbA is weaker than flavodoxin in binding FMN. A molecular modeling study"
J. Mol. Struct.:THEOCHEM **764**, 155-160.
- 35) Natalello A., Doglia S.M., Carey J. and Grandori R.* (2007)
"Role of flavin mononucleotide in thermostability and oligomerization of *Escherichia coli* stress-defense protein WrbA"
Biochemistry, **46**, 543-553.
- 36) Invernizzi G. and Grandori R.* (2007)
"Detection of the equilibrium folding intermediate of beta-lactoglobulin in the presence of trifluoroethanol by mass spectrometry"
Rapid Commun. Mass Spectrom. **21**, 1049-1052.
- 37) Wolfova J., Mesters J.R., Brynda J., Grandori R., Natalello A., Carey J. and Smananova I.K.* (2007)
"Crystallization and preliminary diffraction analysis of *Escherichia coli* WrbA in complex with its cofactor flavin mononucleotide"
Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. **63**, 571-575.
- 38) Carey J.*, Brynda J., Wolfova J., Grandori R., Gustavsson T., Etrich R. and Smananova I.K. (2007)
"WrbA bridges bacterial flavodoxins and eukaryotic NAD(P)H:quinone oxidoreductases"
Protein Sci. **16**, 2301-2305.
- 39) Invernizzi G., Natalello A., Šamalikova M. and Grandori R.* (2007)
"Protein-protein and protein-ligand interactions studied by electrospray-ionization mass spectrometry"
Protein and Peptide Letters **14**, 894-902.
- 40) Ji H.F., Shen L., Grandori R. and Müller N.* (2008)
"The effect of heme on the conformational stability of micro-myoglobin"
FEBS J. **275**, 89-96.
- 41) Santambrogio C. and Grandori R.* (2008)
"Monitoring the Tanford transition in beta-lactoglobulin by 8-anilino-1-naphthalenesulfonate and mass spectrometry"
Rapid Comm. Mass Spectrom. **22**, 4049-4054.
- 42) Grandori R., Santambrogio C., Brocca S., Invernizzi G. and Lotti M.* (2009)
"Electrospray-ionization mass spectrometry as a tool for fast screening of protein structural properties"
Biotechnol. J. **4**, 73-87.
- 43) Brocca S., Šamalikova M., Uversky V.N., Lotti M., Vanoni M., Alberghina L. and Grandori R.* (2009)
"Order propensity of an intrinsically disordered protein, the cyclin-dependent-kinase inhibitor Sic1"
Proteins: Struct. Funct. Bioinf. **76**, 731-746.
- 44) Papaleo E.*, Mereghetti P., Fantucci P., Grandori R. and De Gioia L. (2009)
"Free energy landscape, principal component analysis, and structural clustering to identify representative conformations from Molecular Dynamics simulations: the myoglobin case"
J. Mol. Graph. Model. **27**, 889-899.
- 45) Invernizzi G., Casiraghi L., Grandori R. and Lotti M.* (2009)
"Deactivation and unfolding are uncoupled in a bacterial lipase exposed to heat, low pH and organic solvents"

J. Biotechnol. **141**, 42-46.

46) Invernizzi G., Papaleo E., Grandori R., De Gioia L. and Lotti M.* (2009)

“Relevance of metal ions for lipase stability: Structural rearrangements induced in the *Burkholderia glumae* lipase by calcium depletion”

J. Struct. Biol. **168**, 562-570.

47) Wolfova J., Smatanova I.K., Brynda J., Mesters J.R., Lapkouski M., Kutý M., Natalello A., Chatterjee N., Chern S.Y., Ebbel E., Ricci A., Grandori R., Ettrich R. and Carey J.* (2009)

“Structural organization of WrbA in apo- and holoprotein crystals”

Biochim. Biophys. Acta - Proteins and Proteomics **1794**, 1288-1298.

48) Marchese R., Grandori R.*, Carloni P. and Raugei S.* (2010)

“On the zwitterionic nature of gas-phase peptides and protein ions”

PLoS Computational Biology **6**, e1000775.

49) Santambrogio C., Ricagno S., Colombo M., Barbiroli A., Bonomi F., Bellotti V., Bolognesi M. and Grandori R.* (2010)

“DE-loop mutations affect β 2 microglobulin stability, oligomerization and the low-pH unfolded form”

Protein Science **19**, 1386-1394.

50) Brocca S.*, Testa L., Šamalikova M., Grandori R. and Lotti M. (2011)

“Defining structural domains of an intrinsically disordered protein. Sic1, the cyclin-dependent kinase inhibitor of *Saccharomyces cerevisiae*”

Molecular Biotechnology **47**, 34-42.

51) Natalello A., Benetti F., Doglia S.M., Legname G. and Grandori R.* (2011)

“Compact conformations of α -synuclein induced by alcohols and copper”

Proteins: Struct. Funct. Bioinf. **79**, 611-621.

52) Testa L., Brocca S., Šamalikova M., Santambrogio C., Alberghina L. and Grandori R.* (2011)

“Electrospray-ionization mass spectrometry conformational analysis of isolated domains of an intrinsically disordered protein”

Biotechnol. J. **6**, 96-100.

53) Sperandeo P., Villa R., Martorana A., Šamalikova M., Grandori R., Dehò G. and Polissi A.* (2011).

“New insights into the Lpt machinery for LPS transport to the cell surface: LptA-LptC interaction and LptA stability as a sensors of a properly assembled transenvelope complex”

J. Bacteriol. **193**, 1042-1053.

54) Colombo M., Ricagno S., Barbiroli A., Santambrogio C., Giorgetti S., Raimondi S., Bonomi F., Grandori R., Bellotti V. and Bolognesi M.* (2011)

“The effects of ideal β -turn on β -2 microglobulin fold stability”

J. Biochem. **150**, 39-47.

55) Brocca S., Testa L., Sobott F., Šamalikova M., Natalello A., Papaleo E., Lotti M., De Gioia L., Doglia S.M., Alberghina L. and Grandori R.* (2011)

“Compaction properties of an intrinsically disordered protein: Sic1 and its kinase-inhibitor domain”

Biophys. J. **100**, 2243-2252.

56) Azinas S., Colombo M., Barbiroli A., Santambrogio C., Giorgetti S., Raimondi S., Bonomi F., Grandori R., Bellotti V., Ricagno S. and Bolognesi M.* (2011)

“D-strand perturbation and amyloid propensity in beta-2 microglobulin”

FEBS J. **278**, 2349-2358.

57) Santambrogio C., Ricagno S., Sobott F., Colombo M., Bolognesi M. and Grandori R.* (2011)

“Characterization of β 2-microglobulin conformational intermediates associated to different fibrillation conditions”

J. Mass Spectrom. **46**, 734-741.

58) Testa L., Brocca S. and Grandori R.* (2011)

“Charge-surface correlation in electrospray ionization of folded and unfolded proteins”

Anal. Chem. **83**, 6459-6463.

59) Sacco E., Metalli D., Spinelli M., Manzoni R., Samalikova M., Grandori R., Morrione A., Traversa S., Alberghina L. and Vanoni M.* (2012)

“Novel RasGRF1-derived Tat-fused peptides inhibiting Ras-dependent proliferation and migration in mouse and human cancer cells”

Biotechnol. Adv. **30**, 233-243.

60) Santambrogio C., Frana A.M., Natalello A., Papaleo E., Regonesi M.E., Doglia S.M., Tortora P., Invernizzi G. and Grandori R.* (2012)

“The role of the central flexible region on the aggregation and conformational properties of human ataxin-3”

FEBS J. **279**, 451-463.

61) Uversky V.N., Santambrogio C., Brocca S. and Grandori R.* (2012)

“Length-dependent compaction of intrinsically disordered proteins”

FEBS Lett. **586**, 70-73.

62) Marchese R., Grandori R.*, Carloni P and Raugei S.* (2012)

“A Computational Model for Protein Ionization by Electrospray Based on Gas-Phase Basicity”

J. Am. Soc. Mass Spectrom. **23**, 1903-1910.

63) Lambrugh M., Papaleo E.*, Testa L., Brocca S., De Gioia L. and Grandori R.* (2012)

“Intramolecular interactions stabilizing compact conformations of the intrinsically disordered kinase-inhibitor domain of Sic1: a molecular-dynamics investigation”

Front. Physiol. **3**, 435.

64) Santambrogio C., Sasso F., Natalello A., Brocca S., Grandori R., Doglia S.M. and Lotti M.* (2013)

“Effects of methanol on a methanol-tolerant bacterial lipase”

Appl. Microbiol. Biotechnol. **97**, 8609-8618.

65) Zago M.*, Scaltriti E., Rossetti L., Guffanti A., Armiento A., Fornasari M.E., Grolli S., Carminati D., Brini E., Pavan P., Felsani A., D'Urzo A., Moles A., Claude J.B., Grandori R., Ramoni R. and Giraffa G. (2013)

“Characterization of the genome of the dairy *Lactobacillus helveticus* bacteriophage {Phi}AQ113”

Appl. Environ. Microbiol. **79**, 4712-4718.

66) Santambrogio C., Favretto F., D'Onofrio M., Assfalg M., Grandori R.* and Molinari H.* (2013)

“Mass spectrometry and NMR analysis of ligand binding by human liver fatty-acid binding protein”

J. Mass Spectrom. **48**:i (featured article doi: 10.1002/jms.3191).

67) Santambrogio C., Favretto F., D'Onofrio M., Assfalg M., Grandori R.* and Molinari H.* (2013)

“Mass spectrometry and NMR analysis of ligand binding by human liver fatty-acid binding protein”

J. Mass Spectrom. **48**, 895-903.

68) Santambrogio C., Sperandeo P., Villa R., Sobott F., Polissi A.* and Grandori R.* (2013)

“LptA assembles into rod-like oligomers involving disorder-to-order transitions”

J. Am. Soc. Mass Spectrom. **24**, 1593-1602.

69) Testa L., Brocca S., Santambrogio C., D'Urzo A., Habchi J., Longhi S., Uversky V.N. and Grandori R.* (2013)

“Extracting structural information from charge-state distributions of intrinsically disordered proteins by non-denaturing electrospray-ionization mass spectrometry”

Intrinsically Disordered Proteins **1**, e25068

70) Halabelian L., Ricagno S., Giorgetti S., Santambrogio C., Barbiroli A., Pellegrino S., Achour A., Grandori R., Marchese L., Raimondi S., Mangione P.P., Esposito G., Al-Shawi R., Simons J.P., Speck I., Stoppini M., Pepys M.B., Bolognesi M.* and Bellotti V.* (2014)

“Class I Major Histocompatibility Complex: the Trojan horse for secretion of amyloidogenic β 2-microglobulin”

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