

CURRICULUM VITAE ET STUDIORUM

Luisa Pieroni



Personal informations

Surname , Name: Pieroni, Luisa

Date of birth : 12 January 1970

Citizensh: Italian

Current work address: UniCamillus.Saint Camillus International University of Health Sciences,
Via di Sant'Alessandro, 8
00131 Rome, Italy

Laboratory of Proteomics and Metabonomics,
CERC (European Center for Brain Research),
IRCCS-Santa Lucia Foundation
Via del Fosso di Fiorano 64/65
00143 Roma
ITALY

E-mail address: luisa.pieroni@unicamillus.org
l.pieroni@hsantalucia.it (work)

Education

- January 2000: Ph.D. in Cellular and Molecular Biology and Pathology at the University of Perugia. Thesis Title: "Viral Vectors for Gene Therapy. Construction and functional characterization "
- April 1995: State Exam for the Certificate of Qualification as Biologist at the University of Rome "La Sapienza", passed with a 125/150 mark,
- February 1994: Master Degree in Biological Sciences in honoribus (110/110), University of Rome "La Sapienza". Thesis title: "Polyoma LT induces apoptosis in murine myoblasts".

Research activities / Professional experience in the academic field

- Ottobre 2022 to date: Associate Professor in Clinica Biochemistry and Clinical MOlecular Biology (SC 05/E3, SSD BIO/12) , Departmental Faculty of Medicine and Surgery at the UniCamillus-Saint Camillus International University of Health Sciences, Rome, Italy.
- January 2016- to date: Senior scientist and Manager of the Laboratory of Proteomics and Metabolomics, IRCCS-S. Lucia Foundation of Roma,
- January 2013-December 2015: Award of a Senior Research Grant for Collaboration in Research activities by the University of Rome "Tor Vergata", within the project "Development of new anticancer therapeutic strategies based on proteomics investigations of the signal transduction pathways relevant in tumor stem cells ", disciplinary sector BIO / 12, in collaboration with the laboratory of Proteomics and Metabonomics of the IRCCS Fondazione S.Lucia, of Rome,
- January 2012-December 2012: Assignment of a Scholarship for Senior Graduates from the IRCCS-S.Lucia Foundation, in the Experimental Neuroscience program, for the project "Clinical Proteomics Investigations" at the Laboratory of Proteomics and Metabonomics of the IRCCS Fondazione S. Lucia , From Rome,
- October 2009 - September 2011: Senior post-doctoral scholarship awarded by the University of Rome "Tor Vergata", Dep. of Internal Medicine, within the project "Transmembrane Proteases at the interface of metabolic cues and macrovascular complication of diabetes" funded to Prof. Massimo Federici (PI), from the Fondazione Roma, carried out in agreement and collaboration at the laboratory of Proteomics and Metabonomics of the IRCCS Fondazione S.Lucia, of Rome,
- October 2006 - September 2009: Award of a post-doctoral Research Grant (assegno di ricerca) from the "G.D'Annunzio" University of Chieti, at the Department of Biomedical Sciences, concerning the "Integrative Biology of 5-lipoxygenase", Tutor. Prof. Mario

Romano, carried out in agreement and collaboration at the Laboratory of Proteomics and Metabonomics of the IRCCS Fondazione S.Lucia, in Rome,

- March 2006-June 2006: Contract for research activities with the "Università G.d'Annunzio" Foundation -CeSI, of Chieti for a project collaboration with the CeSI Analytical Biochemistry Unit (Center of Sciences for Aging), for the development of a cell model suitable for in vitro studies within the project "Drug resistance mechanisms in tumor cell lines" funded by the Dompè pharma company, based in L'Aquila.
- January 2005 - July 2005: Maternity leave
- November 2004-October 2005: Research Contract, to support the technical-practical activities of the Degree Course in Biomedical Laboratory Techniques of the Faculty of Medicine and Surgery of the University of Studies "G. d'Annunzio "of Chieti and Pescara
- October2002-September 2004: Award of a Research Collaboration Contract from the University of Rome "Tor Vergata", Department of Internal Medicine, Faculty of Medicine and Surgery, for the project "Study of the paraoxonase gene polymorphisms and biochemical activity of the enzyme in the determinism of atherosclerosis "Tutor :: Prof.Giorgio Federici
- February 2001-June 2001: Maternity leave
- November 2000-October 2002: Award of a "Marie Curie Individual Fellowship" long-term scholarship from the European Community, within the project "Improving the human research potential", n ° of contract HPMF-CT-2000- 00477, duration 2 years, project title "Reorganization of Microtubules and implication of Microtubule Motors in Myofibrillogenesis"
- November 1999-October 2000: Award of a post-doctoral fellowship from the European Molecular Biology Laboratory (EMBL) of Heidelberg (D), in the Laboratory headed by Dr.Eric Karsenti in the Department of Cell Biology and Biophysics, project title "Microtubules reorganization during myofibrillogenesis"
- November 1995 - October 1999: PhD program in Cellular and Molecular Biology and Pathology of the University of Perugia, XI cycle. The doctoral work was carried out at the IRBM of Pomezia (Rome), in agreement with the University of Perugia, in the laboratory of Genetics and Virology directed by Dr. Nicola La Monica, working on the following projects:
i) Characterization in vitro of NS2-NS3 protease of Hepatitis C virus (HCV) and ii) Construction and characterization of viral vectors for gene therapy
- April 1995 - October 1995: PhD scholarship provided by IRBM of Pomezia (Rome), and used at the laboratory of Genetics and Virology directed by Dr. Nicola La Monica, Project title: In vitro characterization of the NS2 protease NS3 of Hepatitis C virus (HCV)
- March 1994-March 1995: post-graduate internship at the IRBM of Pomezia (Rome), carried out in the laboratory of Genetics and Virology directed by Dr. Nicola La Monica, involved in a research project related to the characterization of viral virus proteases HCV

- September 1991 - February 1994: as student in internship, she attends the Laboratory of Cellular and Molecular Biology and Genetics directed by Prof Paolo Amati, under the supervision of Dr. Rosella Maione, in the Department of Human Biopathology, Faculty of Medicine and Surgery, at the Umberto I University Polyclinic, where she works on her Final Degree Thesis

Other work experience

Since 2014, Luisa Pieroni is enrolled in the 3rd level Graduates for teaching Science and Mathematics in the I level secondary school (competition class A059, Mathematics, Chemistry, Physics, Nat.I Gr) and II level Secondary School (competition class A60 Sc.Na, Ch, Geog., Mic) in schools in hier city and from 5/11/2015 to 20/11/2015 he served at the ICAlfieri Lante della Rovere of Rome (RMMM8BL012), I level Secondary School, for a substitute of a full professorship of Mathematics and Sciences

Qualification as a Biologist

Dr. Pieroni is qualified to practice as a biologist since 1995 and is enrolled in the Register of Biologists, - Section A since 2012 with registration number AA_065811

National Scietific Qualification

In 2020 Dr. Pieroni obtained the National Scientific Qualification as Associate Professor in the SC 05/E3-SSD Bio/12 (Clinica Biochemistry and Clinical Molecular Biology) valid from 27/04/2020 to 27/04/2029.

Coordination and teaching activities

Dr Pieroni, as Senior Researcher, coordinates and directs the research activities in the Laboratory of Proteomics and Metabonomics of the IRCCS-Fondazione S. Lucia in Rome and deals with the organizational management of the laboratory (Lab Manager).

She uses to mentor internal students in the practical training in the laboratory, programming and elaboration of experiments, and drafting of the Master Degree and / or PhD Theses.

In particular, she was a co-supervisor of the following theses:

- Master Thesis in Medical Biotechnology, University of Rome "La Sapienza", AY 2010-2011. Student: Francesco Finamore, Title "Proteomic analysis of platelets in the study of cystic fibrosis through 2DE-MS / MS and nUPLC-MSe"
- Master Degree in Medical Biotechnology (Bio/12), University of Rome Tor Vergata, AA2010-2011, student Isabella Alloggio, title "MALDI-MS_Imaging: an identification in the characterization of mouse models of hepatic steatosis"
- Master's thesis in Medical Biotechnology, University of Rome "La Sapienza", AA2015-2016 Student Federico Berruti, Title "study of biocompatibility of dialysis membranes through the use of proteomic platforms"
- Master Thesis in Medical Biotechnology (Bio/12), University of Rome Tor Vergata, Academic Year 2015-2016, Student Ilaria Bayslach, Title: "Mitochondrial Human Proteome

Project: standardization of mitochondrial preparations from SH-SY5Y cells for shotgun proteomics.

She has been a teacher in the Proteomics course for students of the first year of the Master's Degree in Medical Biotechnology (AY 2015-2016) and in the course of Mass Spectrometry Application for the Degree in Pharmacy in English (AY 2014-2015) at the University of Rome "Tor Vergata".

At the "G.D'Annunzio" University of Chieti, she gave her support to the technical-practical activities of the Course in Biomedical Laboratory Techniques, First Degree, in the Faculty of Medicine and Surgery.

In the A.Y. 2021/2022 Dr Pieroni will be in charge of the teaching Clinical Molecular Biology (Bio/12) in the II years of the course in Dentistry and Dental Prosthetics, at the UniCamillus-Saint Camillus International University of Health Sciences, Rome, Italy.

Training courses and post-graduate training experiences

International

6-16 October 1997 EMBO Practical Course "DNA and RNA detection by Fluorescence In Situ Hybridization (FISH)" organized by Ton Raap and Roeland Dirks -Laboratory for Cytochemistry and Cytometry, Dept. of Molecular Cell Biology, Leiden University Medical Center, The Netherlands

23-25 October 2007 "MALDI-TOF-MS Analysis - Clinical Proteomics with Bruker Daltonik GmbH ULTRAFLEX III" held at Bruker Daltonik of BREMA (Germany)

6-7 June 2011 "Ingenuity Pathways Analysis Certification Program" at IBENS 46 rue d'Ulm, 75005 Paris, France

National

21 Nov 2011-May 2012 Course / Master of Dietology and Clinical Nutrition, organized by IAF (Higher Education Institute) in Rome

Involvement in National and International Research Projects:

International research projects

- Marie Curie Individual Fellowship "from the European Community, within the project" Improving the human research potential ", n ° of contract HPMF-CT-2000-00477, of the duration 2 years for a project entitled" Reorganization of microtubule and implication of microtubule motors in myofibrillogenesis ", Principal investigator
- Participation in the Joint Program - Neurodegenerative Disease Research "European research projects for the Cross-Disease Analysis of Pathways related to Neurodegenerative Diseases", 2011 to Prof. Bengt Winblad
- Role of Coordinator of the project "Standardization of the human mitochondrial proteome" carried out by the Consortium of researchers associated with the Italian Society of

Proteomics (ItPA) within the Human Proteome Project (HPP) promoted by the scientific society Human Proteome Organization (HuPO, <https://www.hupo.org/human-proteome-project>)

- Italian delegate as MC Substitute for the European Action COST CA15203:Mitochondrial mapping: Evolution - Age - Gender - Lifestyle - Environment (MitoEagle). COST (European Cooperation in Science and Technology) is supported by the EU Framework Program Horizon 2020
- Coordinator of the Exo_Proteomic Research Team Unit , in the project “New therapeutic strategies based on FAPs-derived Exosomes in the treatment of Duchenne Muscular Dystrophy” granted by the AFM Theleton (AFM 21657) to the PI Dr.Valentina Saccone , at the IRCCS-S.Lucia Foundation
- Coordinator of the Proteomic Research Team Unit at the IRCCS-S.Lucia Foundation in the project “Unveiling the cytoplasmic functions of HDAC4 in dystrophic skeletal muscle”, AFM Telethon (AFM 23531) to the PI Dr.Viviana Moresi (CNR)

National research projects

Participant in the following national projects:

- Research Foundation on Cystic Fibrosis ONLUS (Italian Cystic Fibrosis Research Foundation) grants FFC 12/2005 and FFC 15/2007 to Prof .Mario Romano,
- Telethon GGP07252, to Prof. Daniela Barilla
- " National Network of Proteomics " FIRB RBRN07BMCT, to Prof. Giorgio Federici
- Fondazione Roma 2008 to Prof. Massimo Federici
- FIRB, MIUR Protocol: RBAP11WCRZ "Development of new anti-tumor therapeutic strategies based on proteomic investigations of the relevant signal transduction pathways in tumor stem cells" 2010, to Prof Isabella Screpanti
- Ministry of Health, Young Researchers Projects at Dr. Giuseppe Palmisano
"Extracellular Signaling in Neuroblastoma through Exosomes for novel drug Targets discovery (ESNET) "- WFR code GR-2011-02350301
- Ministry of Health, Young Researcher Projects to Dr. Debora Cutuli, "New strategies for diagnosis, therapeutic and clinical care in Neurological diseases" - WFR code GR-2011-02351086

Technology Transfer / Patents

- Recombinant vectors usable in gene therapy
N. Monica, E. Fattori, L. Pieroni, G. Rizzuto, F. Palombo, A. Monciotti, C. Fipaldini, S. Colloca, A. Recchia, G. Ciliberto
Italian Patent RM97A000200 (April 8,1997)
- Recombinant vectors derived from adeno-associated virus suitable for gene therapy
Inventors: Ciliberto, G .; Place, S .; Factors, E .; Fipaldini, C .; La Monica, N .; Monciotti, A .; Palombo, F .; Pieroni, L .; Recchia, A .; Rizzuto, G.
International Patent Classification: C12N 15/86, 5/12, A61K 48/00

International Filing Date: April 8, 1998

Editorial and Reviewing contribution

- Peer Reviewer for the journal “Current Proteomics”, Bentham Science Ed.
- Peer Reviewer for the journal “Scientific Report”, Nature Publishing Group
- Peer Reviewer for the journal “IJMS”, “Diagnostic” and “Cancer” of the MDPI-Publisher of Open Access Journals

- Guest Associate Editor in Cell Death and Survival section of the journal Frontiers in Cell and Developmental Biology, for the Research Topic: “*Mitochondrial Proteomics: Understanding Mitochondria Function and Dysfunction Through the Characterization of Their Proteome*”(crf doi: 10.3389/fcell.2020.608753)
- Guest Editor of International Journal of Molecular Sciences (ISSN 1422-0067) for the special issue “*Mitochondrial Proteomics in Neuroscience and Neurodegenerative Disease*”

Participation in National and International Scientific Societies

- Italian Proteomics Association (ItPA)
- Italian Cell Culture Association (AICC)
- European Proteomics Association (EuPA)
- Human Proteome Organization (HUPO)

Current Research Activities:

The current research activity mainly focuses on the identification and characterization of proteins and metabolites involved in pathological processes both for diagnostic and pathogenetic purposes, through Proteomics studies, in different areas of biomedical research. In particular, the research activity is focused on the identification and characterization of new molecular markers. The aim of the research is to evaluate the profiles of protein differential expression associated with a careful bioinformatics analysis in order to develop models of integrated biology (systems biology) that can describe complex biological phenomena. Recently, Dr. Pieroni has been directly involved in management and experimental design in a consortium project within the Italian Society of Proteomics (ItPA) aimed at the characterization of the human mitochondrial proteome (mt-HPP) and from the purely chromosomal point of view (c -mt-HPP) that biological and functional (B / D-mt-HPP) as part of the initiative undertaken by the international community of proteomics for the realization of the Human Proteome Project

Acquired methodologies:

Biochemical techniques of classical molecular biology:

pcr, cDNA cloning in plasmid vectors, nucleic acid electrophoresis, southern blot, northern blot, RNase protection, RNA extraction, in vitro retro-transcription, mono and bi-dimensional protein electrophoresis (SDS-PAGE), protein extraction from cells and tissues and organelles (eg

mitochondria), ELISA, western blot, immunoprecipitation assays, transcription and translation in vitro, protein expression systems in bacteria and in insect cell cultures with baculovirus vectors,

Cell cultures, virology, cytogenetics and fluorescence microscopy:

preparation and maintenance of mammalian and insect eukaryotic cell cultures, cDNA and siRNA transfections, virus production and titration, enrichment and isolation from cell cultures of cellular organelles (eg nuclei, and mitochondria) and extracellular vesicles (eg exosomes) preparation of chromosomes on slide for cytogenetic analysis, immunofluorescence, fluorescence in situ hybridization (FISH), classical fluorescence microscopy, confocal microscopy on fixed or live samples (living fluorescence microscopy), FRAP (Fluorescence recovery after photobleaching), isolation of whole blood platelets, limited experience in working with animals (care and care, injection of viral vectors, blood sampling, anesthesia, sacrifice, tissue sampling), preparation of fresh and fixed tissues (FFPE) for immunohistochemical analysis and mass spectrometry, immunohistochemical staining textiles

Proteomics techniques:

two-dimensional protein electrophoresis (2D PAGE), use of MALDI-TOF mass spectrometer for the analysis of samples in MS, MS / MS and ImagingMS on fresh or fixed tissues (FFPE), consultation of online databases (MASCOT, MS- FIT etc.) for the identification of the protein / and unknowns, proteomic analysis by means of the nUPLC-MS / MS (Nano Ultra Performance liquid chromatography technology) coupled with Q-TOF mass spectrometry in DIA (MSe) and DDA, MRM modalities

Computer knowledges:

Excellent knowledge of:

- Windows Operating System and its main components. office suite.
- image analysis and processing software: Adobe Photoshop, Image J
- main image processing software and statistical analysis of two-dimensional maps: DELTA 2D, Decodon; PDQuest-BioRad; Image 2D Master Platinum-GE Healthcare
- main Internet browsing software such as Internet Explorer and Netscape Navigator, Mozilla Firefox, GoogleChrome
- software for mass spectrometric data analysis for proteomics: Mascot, MS-FIT Protein Database search, Proteinlynx Global Server (PLGS), Progenesis QI for Proteomics, BioTools, FlexAnalysis, Flex Imaging, Peaks, Skyline
- functional meta-analysis software of Reactome, Panther, Ingenuity Pathway Analysis (IPA) proteomics

Foreign languages

Excellent knowledge of spoken and written English, equivalent level C1

Discreet knowledge of spoken German and Spanish

Relational and organizational skills and competences

Dr. Pieroni, since the early years of her training, has had the opportunity to work in national and international laboratories, developing great skills for interaction and collaboration with italian and foreign colleagues. For over ten years, she has carried out a work of coordination and supervision of

the research carried out in the laboratory of Proteomics and Matabolomics at the CERC of IRCCS Fondazione S.Lucia, and deals with the bureaucratic and administrative management of the laboratory.

Other skills and competences

In her private life, Dr.Pieroni has played roles of coordination and organization in the field of sport, as a coach of minibasket teams during her university studies.

She is married and mother of two boys, currently 20 and 16 years and has been repeatedly involved in the activities of school collegiate bodies (eg, Class Council) in schools attended by their children of different levels (Primary , Secondary degree I and Secondary degree II)

Participation in International Congresses / Abstracts

1)ELSO 2002

29 June- 3 July 2002, Nice, France **Reorganization of microtubule and implication of microtubule motors in myofibrillogenesis** Pieroni, L., Pizon, V. and E. Karsenti

2)HUPO 7th Annual World Congress Amsterdam 2008

16 - 20 August 2008, The Netherlands:

- **Proteomics Characterization of hemodialysis membranes Biocompatibility**

Pavone, B.; Lupisella, S.; Bucci, S.; Di Cesare, M.; Forlì F.; Sirolli, V.; **Pieroni, L.**; Sacchetta , P., Di Ilio, C.; Federici, G.; Bonomini, M.; and Urbani, A.

- **Protein unlocking of formalin stored (FFPE) tissues: application to MALDI-TOF Imaging MS**

M. Ronci, E. Bonanno, A. Colantoni, **L. Pieroni**, C. Di Ilio, L. G. Spagnoli, G. Federici and A. Urbani

- **Proteome Profiling of Neuroblastoma Resistant Cell Line by 2DE and Label-Free LC-MSE** D'Aguanno S, D'Alessandro A, **Pieroni L**, Bernardini S, Federici G and Urbani A

- **Proteomics characterization of hemodialysis membranes biocompatibility**

Pavone B, Lupisella S, Bucci S, Di Cesare M, Forlì F, Sirolli V, **Pieroni L**, Sacchetta P, Di Ilio C, Federici G, Bonomini M and Urbani A

- **PI injuring effect on a dopaminergic NB cell line model and Estradiol rescue**

D'Alessandro A, D'Aguanno S, Cencioni MT, Diamantini A, Battistini L, **Pieroni L**, Bernardini S, Federici G and Urbani A.

3) ItPA , Italian Proteomic Association 5th ANNUAL NATIONAL CONFERENCE

June 9 –12, 2010, FIRENZE Italy

Proteomics investigation of human platelets in healthy donors and cystic fibrosis patient by shotgun nUPLC-MS^E and 2DE: a comparative study

Pieroni L., Finamore F, Ronci M, Mattoscio D, Marzano V, Mortera S, Romano M, Federici G and Urbani A

4) ItPA , Italian Proteomic Association VIIth ANNUAL NATIONAL CONFERENCE

June 12 –15, 2012, VITERBO, Italy

MALDI-MS-Imaging: an application in the characterization of mouse models of hepatic steatosis

Alloggio I, **Pieroni L.**, Cavallera M., Colantoni A., Federici M, Bonanno E. , Spagnoli LG , and Urbani A.

5) Mitochondrial Disease: translating biology into new treatments

Wellcome Trust Conference Centre Wellcome Trust Genome Campus Hinxton Cambridge UK , 2 - 4 October 2013

The Mitochondrial Italian Human Proteome Project Initiative (mt-HPP): a glance into neurodegenerative disease. Pieroni, L., Alloggio, I; De Canio, M., Alberio, T., Fasano, M. and Urbani, A.

6) EuPA IX International Congress and ItPA, June 23-28, 2015 , Milano, Italy

Biocompatibility assessment of haemodialysis membrane materials by proteomic investigations Pieroni, L., Levi Mortera , S., Greco, V., Roncia, M., Sirolli, V., Fucci, G., Bernardini, S., Di Daniele, N., Bonomini, M., Urbani, A.

7) EuPA X International Congress and ItPA, June 22-25, 2016, Istanbul, Turkey

Looking for missing proteins in the human mitochondrial proteome Pieroni, L.; Greco, V.; Cilio, E.; Saletti R.; Foti, S.; Cunsolo V.; Urbani A.; Ronci, M.

8) HUPO 11th Annual World Congress 2017, Dublin, Ireland 17-21 September

Proteomic investigation supporting behavioural characterization of motor function recovery by DHA treatment upon Spinal Cord Injury (SCI) Pieroni, L., Marinelli, S., De Angelis, F., Vacca, V., Orsini , T., Soligo, M., Protto, V., Guerrieri, R., Manni, L., Urbani, A., Pavone, F.

9) MiP 2017/MitoEAGLE Conference, Hradec Králové, November 17, 2017

Toward the standardization of mitochondrial proteomics. Pieroni Luisa, Alberio T, Ronci M, Roncada P, Urbani A, Fasano M, the Italian mt-HPP Consortium

10) ItPA, HPS and SePA XV International Congress 2021 8-10 September 2021 , Rome, Italy

A Proteomics investigations on human cells from patients with an orphan neurodevelopmental syndrome.

De Mori R , Serpieri V, Boroumand M. , Mazzotta C, Castagnola M, Valente EM, Pieroni L.

Journal of Neuroimmunology 275 (1), 191-192, 2014/10/15

Analysis of the interferon gamma modulated pathways related to the therapeutic plasticity of bone marrow-derived mesenchymal stem cells through a SILAC-based proteomic approach

Laura Lovato, Cristina Neri, Valeria Marzano, Giovanni Novi, Stefano Levi Mortera, Chiara Cavaliere, Anna Laura Capriotti, **Luisa Pieroni**, Nicole Kerlero De Rosbo, Andrea Urbani, Antonio Uccelli

JOURNAL OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE 8, 280-280, 2014/06/01

Analysis of the IFN gamma-modulated pathways related to the therapeutic plasticity of bone-marrow derived mesenchymal stem cells through a SILAC-based proteomic approach

Laura Lovato, Cristina Neri, Valeria Marzano, Giovanni Novi, Stefano Levi Mortera, Chiara Cavaliere, Anna Laura Capriotti, **Luisa Pieroni**, Nicole Kerlero De Rosbo, Andrea Urbani, Antonio Uccelli ...

Circulation 128 (Suppl 22), A17260-A17260, 2013/11/26

Role of Exosomes in Pericardial Fluid-mediated Cardiac Regeneration Federica Limana, Eleonora Foglio, Pasquale Fasanaro, Daniela D'Arcangelo, Ciro Campanella, Giulietta Perrone, David Mocini, **Luisa Pieroni**, Valeria Marzano, Antonella Logozzi, Stefano Fais, Antonia Germani, Maurizio Capogrossi, Matteo Antonio Russo

JOURNAL OF NEUROIMMUNOLOGY 253 (1-2), 53-54, 2012/12/15

Comprehensive identification of soluble factors involved in mesenchymal stem cells-mediated neuroprotection utilizing the SILAC approach

Laura Lovato, Valeria Marzano, Simone Albino, Tiziana Vigo, **Luisa Pieroni**, Andrea Urbani, Antonio Uccelli

Scientific Paper

Dr. Pieroni has 61 scientific publications, indexed on Scopus with an *h-index* = 22 (20 excluding self citations) (last update January 12, 2022)

1. **In vitro study of the NS2-3 protease of the hepatitis C virus.** Pieroni, L., Santolini, E., Fipaldini, C., Pacini, L., Migliaccio, G., and N. La Monica *Journal of Virology*, Sept. 1997, Vol.71, No. 9 PMID: PMC191910
2. **Targeted integration of AAV derived plasmids in transfected human cells.** Pieroni, L., C. Fipaldini, A. Monciotti, D. Cimini, A. Sgura, E. Fattori, O. Epifano, R. Cortese, F. Palombo, and N. La Monica, *Virology* 249, 249-259 (1998), DOI: 10.1006/viro.1998.9332
3. **Site-specific integration mediated by a hybrid adenovirus/adenovirus-associated virus vector** Recchia, A., Parks, R.J., Lamartina, S., Toniatti, C., Pieroni, L., Palombo, F., Ciliberto, G., Cortese, R., and S.Colloca, *Proc. Natl. Acad. Sci. USA*, Vol. 96, pp.2615-2620. March 1999, PMID: PMC15817
4. **In vivo gene transfer in mouse skeletal muscle mediated by baculovirus vectors.** Pieroni, L., Maione, D. and N. La Monica, *Hum. Gene Ther.* 12: 871-881, May 20, 2001, DOI:10.1089/104303401750195845
5. **Towards the use of baculovirus as gene therapy vector** Pieroni, L. and N. La Monica, *Curr. Opin. Mol. Ther.* (2001) 3 (5):464-467, PMID: 11699890
6. **Perspectives of Proteomics Investigations of Neuroblastoma Chemoresistance** D'Alessandro, A.; Marzano, V.; D'Aguanno, S.; Pieroni, L.; Bernardini, S.; Federici, G. and Urbani, A. in: *Progress in Cancer Drug Resistance Research*, Chapter IX, pp. 161-176; ISBN: 978-1-60021-822-4 Editor: Robert A. Parsons, © 2007 Nova Science Publishers, Inc.
7. **Protein unlocking procedures of formalin-fixed paraffin-embedded tissues: application to MALDI-TOF Imaging MS investigations** Ronci, M., Bonanno, E., Colantoni, A., Pieroni, L., Di Ilio, C., Spagnoli, L.G., Federici, G. Urbani, A. *Proteomics* 2008 Sep;8(18): 3702-14. doi: 10.1002/pmic.200701143
8. **Proteasome Inhibitors Therapeutic Strategies for Cancer** D'Alessandro, A.; Pieroni, L*; Ronci, M.; D'Aguanno, S.; Federici, G. and Urbani, A. *Recent Patents on Anti-Cancer Drug Discovery* 2009 Jan.; 4(1): 73-82 DOI: 10.2174/157489209787002452 *corresponding author
9. **Cystic fibrosis transmembrane conductance regulator (CFTR) expression in human platelets: impact on mediators and mechanisms of the inflammatory response.** Mattoscio D, Evangelista V, De Cristofaro R, Recchiuti A, Pandolfi A, Di Silvestre S, Manarini S, Martelli N, Rocca B, Petrucci G, Angelini DF, Battistini L, Robuffo I, Pensabene T, Pieroni L, Lucia Furnari M, Pardo F, Quattrucci S, Lancellotti S, Davi G, Romano M. *FASEB J.* 2010 Jun 8. doi: 10.1096/fj.10-159921
10. **Proteomics investigation of human platelets by shotgun nUPLC-MSE and 2DE experimental strategies: a comparative study.** Finamore F, Pieroni L*, Ronci M, Marzano V, Mortera SL, Romano M, Cortese C, Federici G, Urbani A. *Blood Transfus.* 2010 Jun;8 Suppl 3:s140-8 doi: 10.2450/2010.021S *corresponding author

11. Proteomics investigation of human platelets in healthy donors and cystic fibrosis patient by shotgun nUPLC-MSE and 2DE: a comparative study

Pieroni L*, Finamore F, Ronci M, Mattoscio D, Marzano V, Levi Mortera S, Quattrucci S, Federici G, Romano M and Urbani A. *Mol. Biosyst.*, 2010 Nov 12. DOI:10.1039/C0MB00135J.

***corresponding author**

12. New insights into neuroblastoma cisplatin resistance: a comparative proteomic and meta-mining investigation D'Aguanno S, D'Alessandro A, **Pieroni L**, Roveri A, Zaccarin M, Marzano V, De Canio M, Bernardini S, Federici G, and Urbani A. *J. Proteome Res.*, 2011 Feb 4;10(2):416-28. Epub 2010 Dec 29. DOI: 10.1021/pr100457n

13. Lenalidomide restrains motility and overangiogenic potential of bone marrow endothelial cells in patients with active multiple myeloma De Luisi A, Ferrucci A, Coluccia AM, Ria R, Moschetta M, de Luca E, **Pieroni L**, Maffia M, Urbani A, Di Pietro G, Guarini A, Ranieri G, Ditunno P, Berardi S, Caivano A, Basile A, Cascavilla N, Capalbo S, Quarta G, Dammacco F, Ribatti D, Vacca A. *Clin Cancer Res.* 2011 Apr 1; 17(7):1935-1946, doi: 10.1158/1078-0432.CCR-10-2381

14. Protein repertoire impact of Ubiquitin-Proteasome System impairment: insight into the protective role of beta-estradiol. D'Alessandro A, D'Aguanno S, Cencioni MT, **Pieroni L**, Diamantini A, Battistini L, Longone P, Spalloni A, De Laurenzi V, Bernardini S, Federici G, Urbani A. *J Proteomics.* 2012 Feb 2;75(4):1440-53. doi: 10.1016/j.jprot.2011.11.014

15. Proteomic analysis of protein adsorption capacity of different haemodialysis membranes. Urbani A, Lupisella S, Sirolli V, Bucci S, Amoroso L, Pavone B, **Pieroni L**, Sacchetta P, Bonomini M. *Mol Biosyst.* 2012 Apr;8(4):1029-39. doi: 10.1039/c2mb05393d

16. Proteomic investigations on the effect of different membrane materials on blood protein adsorption during haemodialysis. Urbani A, Sirolli V, Lupisella S, Levi-Mortera S, Pavone B, **Pieroni L**, Amoroso L, Di Vito R, Bucci S, Bernardini S, Sacchetta P, Bonomini M. *Blood Transfus.* 2012 May;10 Suppl 2:s101-12. doi: 10.2450/2012.014S

17. Oxidative modifications of cerebral transthyretin are associated with multiple sclerosis. Pieragostino D, Del Boccio P, Di Ioia M, **Pieroni L**, Greco V, De Luca G, D'Aguanno S, Rossi C, Franciotta D, Centonze D, Sacchetta P, Di Ilio C, Lugaresi A, Urbani A. *Proteomics.* 2013 Mar;13(6):1002-9. doi: 10.1002/pmic.201200395. PMID: 23319365

18. Proteomic and ionic profiling reveals significant alterations of protein expression and calcium homeostasis in cystic fibrosis cells. Ciavardelli D, D'Orazio M, **Pieroni L**, Consalvo A, Rossi C, Sacchetta P, Di Ilio C, Battistoni A, Urbani A. *Mol Biosyst.* 2013 Jun;9(6):1117-26. doi: 10.1039/c3mb25594h.

19. Schwann cell autophagy counteracts the onset and chronification of neuropathic pain.

Marinelli S, Nazio F, Tinari A, Ciarlo L, D'Amelio M, **Pieroni L**, Vacca V, Urbani A, Cecconi F, Malorni W, Pavone F. *Pain.* 2014 Jan;155(1):93-107. doi: 10.1016/j.pain.2013.09.013.

20. **A metaproteomic pipeline to identify newborn mouse gut phlotypes.** Del Chierico F, Petrucca A, Mortera SL, Vernocchi P, Rosado MM, **Pieroni L**, Carsetti R, Urbani A, Putignani L.J Proteomics. 2014 Jan 31;97:17-26. doi: 10.1016/j.jprot.2013.10.025.
21. **Higher pain perception and lack of recovery from neuropathic pain in females: a behavioural, immunohistochemical, and proteomic investigation on sex-related differences in mice.** Vacca V, Marinelli S, **Pieroni L**, Urbani A, Luvisetto S, Pavone F. Pain. 2014 Feb;155(2):388-402. doi: 10.1016/j.pain.2013.10.027.
22. **Mitochondrial proteomics investigation of a cellular model of impaired dopamine homeostasis, an early step in Parkinson's disease pathogenesis.** Alberio T, Bondi H, Colombo F, Alloggio I, **Pieroni L**, Urbani A, Fasano M. Mol Biosyst. 2014 Jun;10(6):1332-44. doi: 10.1039/c3mb70611g.
23. **Proteomic investigations into hemodialysis therapy** Bonomini, M., Sirolli, V., **Pieroni, L.**, Felaco, P., Amoroso, L., Urbani, A. (2015) International Journal of Molecular Sciences, 16 (12), pp. 29508-29521. doi: 10.3390/ijms161226189
24. **Exosomal clusterin, identified in the pericardial fluid, improves myocardial performance following MI through epicardial activation, enhanced arteriogenesis and reduced apoptosis** Foglio, E., Puddighinu, G., Fasanaro, P., D'Arcangelo, D., Perrone, G.A., Mocini, D., Campanella, C., Coppola, L., Logozzi, M., Azzarito, T., Marzoli, F., Fais, S., **Pieroni, L.**, Marzano, V., Germani, A., Capogrossi, M.C., Russo, M.A., Limana, F. (2015) International Journal of Cardiology, 197, art. no. 20664, pp. 333-347. doi: 10.1016/j.ijcard.2015.06.008.
25. **Glucagon-like peptide 1 protects INS-1E mitochondria against palmitate-mediated beta-cell dysfunction: A proteomic study.** Ciregia, F., Giusti, L., Ronci, M., Bugliani, M., Piga, I., **Pieroni, L.**, Rossi, C., Marchetti, P., Urbani, A., Lucacchini, A. (2015) Molecular BioSystems, 11 (6), pp. 1696-1707. doi: 10.1039/c5mb00022
26. **Proteomic analysis of human sonic hedgehog (SHH) medulloblastoma stem-like cells.** Ronci, M., Catanzaro, G., **Pieroni, L.**, Po, A., Besharat, Z.M., Greco, V., Levi Mortera, S., Screpanti, I., Ferretti, E., Urbani, A. (2015) Molecular BioSystems, 11 (6), pp. 1603-1611. doi: 10.1039/c5mb00034c.
27. **Biocompatibility assessment of haemodialysis membrane materials by proteomic investigations.** **Pieroni, L.**, Levi Mortera, S., Greco, V., Sirolli, V., Ronci, M., Felaco, P., Fucci, G., De Fulviis, S., Massoud, R., Condò, S., Capria, A., Di Daniele, N., Bernardini, S., Urbani, A., Bonomini, M.(2015) Molecular BioSystems, 11 (6), pp. 1633-1643. doi: 10.1039/c5mb00058k.
28. **MDM4/HIPK2/p53 cytoplasmic assembly uncovers coordinated repression of molecules with anti-apoptotic activity during early DNA damage response** Mancini F, **Pieroni L**, Monteleone V, Lucà R, Fici L, Luca E, Urbani A, Xiong S, Soddu S, Masetti R, Lozano G Pontecorvi A and Moretti F Oncogene 2016, 35 (2), pp. 228-240. doi: 10.1186/s12943-017-0626-7.
29. **Experimental setup for the identification of mitochondrial protease substrates by shotgun and top-down proteomics** Di Pierro, A., Bondi, H., Monti, C., **Pieroni, L.**, Cilio, E., Urbani, A.,

Alberio, T., Fasano, M., Ronci, M. (2016) *EuPA Open Proteomics*, 11, pp. 1-3. doi: 10.1016/j.euprot.2016.02.002

30. **Beta-estradiol counteracts neuropathic pain: A behavioural, immunohistochemical, and proteomic investigation on sex-related differences in mice** Vacca, V., Marinelli, S., **Pieroni, L.**, Urbani, A., Luvisetto, S., Pavone, F. (2016) *Scientific Reports*, 6, art. no. 18980, doi: 10.1038/srep18980..

31. **Micrnas-proteomic networks characterizing human medulloblastoma-SLCs** Catanzaro, G., Besharat, Z.M., Garg, N., Ronci, M., **Pieroni, L.**, Miele, E., Mastronuzzi, A., Carai, A., Alfano, V., Po, A., Screpanti, I., Locatelli, F., Urbani, A., Ferretti, E (2016) *Stem Cells International*, 2016, art. no. 2683042, doi: 10.1155/2016/2683042.

32. **Monitoring Perinatal Gut Microbiota in Mouse Models by Mass Spectrometry Approaches: Parental Genetic Background and Breastfeeding Effects.** Levi Mortera S, Del Chierico F, Vernocchi P, Rosado MM, Cavola A, Chierici M, **Pieroni L**, Urbani A, Carsetti R, Lante I, Dallapiccola B, Putignani L. *Front Microbiol.* 2016 Sep 26;7:1523. eCollection 2016. PubMed PMID: 27725814; PubMed Central PMCID: PMC5036385.

33. **MDM4 actively restrains cytoplasmic mTORC1 by sensing nutrient availability.** Mancini F, Teveroni E, Di Conza G, Monteleone V, Arisi I, Pellegrino M, Buttarelli M, **Pieroni L**, D'Onofrio M, Urbani A, Pontecorvi A, Mazzone M, Moretti F., *Mol Cancer.* 2017 Mar 7;16(1):55. doi: 10.1186/s12943-017-0626-7. PubMed PMID:28270148; PubMed Central PMCID: PMC5341177.

34. **Direct Assessment of Plasma/Serum Sample Quality for Proteomics Biomarker Investigation.** Greco V, Piras C, **Pieroni L**, Urbani A *Methods Mol Biol.* 2017;1619:3-21. doi: 10.1007/978-1-4939-7057-5_1. Review. PubMed PMID: 28674873.

35. **Toward the Standardization of Mitochondrial Proteomics: The Italian Mitochondrial Human Proteome Project Initiative.** Alberio T[§], **Pieroni L**[§], Ronci M[§], Banfi C, Bongarzone I, Bottoni P, Brioschi M, Caterino M, Chinello C, Cormio A, Cozzolino F, Cunsolo V, Fontana S, Garavaglia B, Giusti L, Greco V, Lucacchini A, Maffioli E, Magni F, Monteleone F, Monti M, Monti V, Musicco C, Petrosillo G, Porcelli V, Saletti R, Scatena R, Soggiu A, Tedeschi G, Zilocchi M, Roncada P, Urbani A, Fasano MJ *Proteome Res.* 2017 Dec 1;16(12):4319-4329. doi: 10.1021/acs.jproteome.7b00350. Epub 2017 Sep 13. PubMed PMID: 28828861. [§] autori che hanno dato lo stesso contributo alla pubblicazione , in ordine alfabetico

36. **Examining hemodialyzer membrane performance using proteomic technologies.** Bonomini M, **Pieroni L**, Di Liberato L, Sirolli V, Urbani A. *Ther Clin Risk Manag.* 2017 Dec 18;14:1-9. doi: 10.2147/TCRM.S150824. eCollection 2018. Review. PubMed PMID: 29296087; PubMed Central PMCID: PMC5739111.

37. **Proteomic Characterization of a New asymmetric Cellulose Triacetate Membrane for Hemodialysis.** . Ronci M, Leporini L, Felaco P, Sirolli V, **Pieroni L**, Greco V, Aceto A, Urbani A, Bonomini M *Proteomics Clin Appl.* 2018 May 28:e1700140. doi: 10.1002/prca.201700140.

38. **Proteomics and Toxicity Analysis of Spinal-Cord Primary Cultures upon Hydrogen Sulfide Treatment.** Greco V, Spalloni A, Corasolla Carregari V, **Pieroni L**, Persichilli S, Mercuri NB, Urbani A, Longone P *Antioxidants (Basel)*. 2018 Jul 10;7(7). ii: E87. doi: 10.3390/antiox7070087. PubMed PMID: 29996549; PubMed Central PMCID: PMC6070951.
39. **Applications of MALDI-TOF mass spectrometry in clinical proteomics.** Greco V, Piras C, **Pieroni L**, Ronci M, Putignani L, Roncada P, Urbani A. *Expert Rev Proteomics*. 2018 Aug;15(8):683-696. doi: 10.1080/14789450.2018.1505510.
40. **Blood Cell Proteomics in Chronic Kidney Disease.** Bonomini M, **Pieroni L**, Ronci M, Sirolli V, Urbani A. *The Open Urology & Nephrology Journal*, 2018, Volume 11 29 DOI: 10.2174/1874303X01811010028, 2018, 11, 28-38
41. **Sequential Fractionation Strategy Identifies Three Missing Proteins in the Mitochondrial Proteome of Commonly Used Cell Lines.** Ronci M, **Pieroni L**, Greco V, Scotti L, Marini F, Carregari VC, Cunsolo V, Foti S, Aceto A, Urbani A. *J Proteome Res*. 2018 Oct 5. doi: 10.1021/acs.jproteome.8b00422.
42. **Crosstalk Between Oxidative Stress and Mitochondrial Damage: Focus on Amyotrophic Lateral Sclerosis.** Greco V, Longone P, Spalloni A, **Pieroni L**, Urbani A. *Adv Exp Med Biol*. 2019;1158:71-82. doi: 10.1007/978-981-13-8367-0_5. PMID: 31452136
43. **Innovative mouse model mimicking human-like features of spinal cord injury: efficacy of Docosahexaenoic acid on acute and chronic phases.** Marinelli S, Vacca V, Angelis F, **Pieroni L**, Orsini T, Parisi C, Soligo M, Protto V, Manni L, Guerrieri R, Pavone F. *Sci Rep*. 2019 Jun 20;9(1):8883. doi: 10.1038/s41598-019-45037-x. PMID: 31222077
44. **Impact of Pharmacological Inhibition of Hydrogen Sulphide Production in the SOD1G93A-ALS Mouse Model.** Spalloni A, Greco V, Ciriminna G, Corasolla Carregari V, Marini F, **Pieroni L**, Mercuri NB, Urbani A, Longone P. *Int J Mol Sci*. 2019 May 24;20(10). pii: E2550. doi: 10.3390/ijms20102550. PMID: 31137614
45. **Mapping of Transglutaminase-2 Sites of Human Salivary Small Basic Proline-Rich Proteins by HPLC-High-Resolution ESI-MS/MS.** Boroumand M, Olianias A, Manconi B, Serrao S, Iavarone F, Desiderio C, **Pieroni L**, Faa G, Messana I, Castagnola M, Cabras T. *J Proteome Res*. 2019 Nov 6. doi: 10.1021/acs.jproteome.9b00527. [Epub ahead of print] PMID: 31638822
46. **Enrichments of post-translational modifications in proteomic studies.** **Pieroni L**, Iavarone F, Olianias A, Greco V, Desiderio C, Martelli C, Manconi B, Sanna MT, Messana I, Castagnola M, Cabras T. *J Sep Sci*. 2019 Oct 21. doi: 10.1002/jssc.201900804. [Epub ahead of print] Review. PMID: 31631532
46. **Proteomic Analysis Reveals a Biofilm-Like Behavior of Planktonic Aggregates of Staphylococcus epidermidis Grown Under Environmental Pressure/Stress.** Bottagisio M, Soggiu A, Piras C, Bidossi A, Greco V, **Pieroni L**, Bonizzi L, Roncada P, Lovati AB. *Front Microbiol*. 2019 Sep 6;10:1909. doi: 10.3389/fmicb.2019.01909. eCollection 2019.

47. **Urinary peptidomic biomarkers in kidney diseases.** Sirolli, V., **Pieroni, L.**, Di Liberato, L., Urbani, A., Bonomini, M. *Int J Mol Sci.* 2019;21(1):E96. Published 2019 Dec 21. doi:10.3390/ijms21010096
48. **Exploring the HeLa Dark Mitochondrial Proteome** Marini, F., Carregari, V.C., Greco, V., Ronci, M., Iavarone, F., Persichilli, S., Castagnola, M., Urbani, A. and **Pieroni, L.** *Front Cell Dev Biol.* 2020 Mar 5;8:137. doi: 10.3389/fcell.2020.00137
49. **Publisher Correction: Innovative mouse model mimicking human-like features of spinal cord injury: efficacy of Docosahexaenoic acid on acute and chronic phases.** Marinelli S, Vacca V, De Angelis F, **Pieroni L**, Orsini T, Parisi C, Soligo M, Protto V, Manni L, Guerrieri R, Pavone F. *Sci Rep.* 2019 Nov 14;9(1):17043. doi: 10.1038/s41598-019-53787-x.
50. **Putative Biomarkers for Malignant Pleural Mesothelioma Suggested by Proteomic Analysis of Cell Secretome.** Lacerenza S, Ciregia F, Giusti L, Bonotti A, Greco V, Giannaccini G, D'Antongiovanni V, Fallahi P, **Pieroni L**, Cristaudo A, Lucacchini A, Mazzoni MR, Foddis R. *Cancer Genomics Proteomics.* 2020 May-Jun;17(3):225-236. doi: 10.21873/cgp.20183.
51. **Gut-Brain Axis and Neurodegeneration: State-of-the-Art of Meta-Omics Sciences for Microbiota Characterization.** Tilocca B, **Pieroni L**, Soggiu A, Britti D, Bonizzi L, Roncada P, Greco V. *Int J Mol Sci.* 2020 Jun 5;21(11):4045. doi: 10.3390/ijms21114045.
52. **Exploring the Impact of *PARK2* Mutations on the Total and Mitochondrial Proteome of Human Skin Fibroblasts.** Zilocchi M, Colugnat I, Lualdi M, Meduri M, Marini F, Corasolla Carregari V, Moutaoufik MT, Phanse S, **Pieroni L**, Babu M, Garavaglia B, Fasano M, Alberio T. *Front Cell Dev Biol.* 2020 Jun 11;8:423. doi: 10.3389/fcell.2020.00423. eCollection 2020.
53. **HPLC-ESI-MS top-down analysis of salivary peptides of preterm newborns evidenced high activity of some exopeptidases and convertases during late fetal development.** Boroumand, M., Iavarone, F., Manconi, B., **Pieroni, L.**, Greco, V., Vento, G., Tirone, C., Desiderio, C., Fiorita, A. Author, Faa, G., Messana, I., Cabras, T., Olianias, A., Castagnola, M. *Talanta* Volume 222, 15 January 2021, Article number 121429. <https://doi.org/10.1016/j.talanta.2020.121429>
54. **Behavioral, neuromorphological, and neurobiochemical effects induced by omega-3 fatty acids following basal forebrain cholinergic depletion in aged mice.** Cutuli D, Landolfo E, Nobili A, De Bartolo P, Sacchetti S, Chirico D, Marini F, **Pieroni L**, Ronci M, D'Amelio M, D'Amato FR, Farioli-Vecchioli S, Petrosini L. *Alzheimers Res Ther.* 2020 Nov 16;12(1):150. doi: 10.1186/s13195-020-00705-3.
55. **Impact of the Trophic Effects of the Secretome From a Multistrain Probiotic Preparation on the Intestinal Epithelia.** Petito V, Greco V, Laterza L, Graziani C, Fanali C, Lucchetti D, Barbaro MR, Bugli F, **Pieroni L**, Lopetuso LR, Sgambato A, Sanguinetti M, Scaldaferrì F, Urbani A, Gasbarrini A. *Inflamm Bowel Dis.* 2020 Dec 10:izaa298. doi: 10.1093/ibd/izaa298. Online ahead of print. PMID: 33300553
56. **Editorial: Mitochondrial Proteomics: Understanding Mitochondria Function and Dysfunction Through the Characterization of Their Proteome.** Ferri A, Garcia-Roves PM, **Pieroni L.** *Front Cell Dev Biol.* 2020 Dec 10;8:608753. doi: 10.3389/fcell.2020.608753. eCollection 2020.

57. **Proteomics of Muscle Microdialysates Identifies Potential Circulating Biomarkers in Facioscapulohumeral Muscular Dystrophy.** Corasolla Carregari V, Monforte M, Di Maio G, **Pieroni L**, Urbani A, Ricci E, Tasca G. *Int J Mol Sci.* 2020 Dec 30;22(1):290. doi: 10.3390/ijms22010290.
58. **Biallelic mutations in RNF220 cause laminopathies featuring leukodystrophy, ataxia and deafness.** Sferra A, Fortugno P, Motta M, Aiello C, Petrini S, Ciolfi A, Cipressa F, Moroni I, Leuzzi V, **Pieroni L**, Marini F, Boespflug Tanguy O, Eymard-Pierre E, Danti FR, Compagnucci C, Zambruno G, Brusco A, Santorelli FM, Chiapparini L, Francalanci P, Loizzo AL, Tartaglia M, Cestra G, Bertini E. *Brain.* 2021 May 8;awab185. doi: 10.1093/brain/awab185
59. **Inhibition of the mTOR pathway and reprogramming of protein synthesis by MDM4 reduce ovarian cancer metastatic properties.** Lucà R, Assenza R, Maiullari F, **Pieroni L**, Maiullari S, Federici G, Marini F, Rizzi R, Urbani A, Soddu S, Moretti F. *Cell Death Dis.* 2021 May 29;12(6):558. doi: 10.1038/s41419-021-03828-z.
60. **C9ORF72 Repeat Expansion Affects the Proteome of Primary Skin Fibroblasts in ALS.** Lualdi M, Shafique A, Pedrini E, **Pieroni L**, Greco V, Castagnola M, Cucina G, Corrado L, Di Pierro A, De Marchi F, Camillo L, Colombrita C, D'Anca M, Alberio T, D'Alfonso S, Fasano M. *Int J Mol Sci.* 2021 Sep 27;22(19):10385. doi: 10.3390/ijms221910385.
61. **MYC regulates metabolism through vesicular transfer of glycolytic kinases.** Tsakaneli A, Carregari VC, Morini M, Eva A, Cangemi G, Chayka O, Makarov E, Bibbò S, Capone E, Sala G, De Laurenzi V, Poon E, Chesler L, **Pieroni L**, Larsen MR, Palmisano G, Sala A. *Open Biol.* 2021 Dec;11(12):210276. doi: 10.1098/rsob.210276.
63. **Silencing of Ago-2 Interacting Protein SERBP1 Relieves KCC2 Repression by miR-92 in Neurons.** Barbato C, Frisone P, Braccini L, D'Aguanno S, **Pieroni L**, Ciotti MT, Catalanotto C, Cogoni C, Ruberti F. *Cells.* 2022 Mar 20;11(6):1052. doi: 10.3390/cells11061052. PMID: 35326503; PMCID: PMC8947033.
64. **Repurposing of Trimetazidine for amyotrophic lateral sclerosis: A study in SOD1^{G93A} mice.** Scaricamazza S, Salvatori I, Amadio S, Nesci V, Torcinaro A, Giacobuzzo G, Primiano A, Gloriani M, Candelise N, **Pieroni L**, Loeffler JP, Renè F, Quessada C, Tefera TW, Wang H, Steyn FJ, Ngo ST, Dobrowolny G, Lepore E, Urbani A, Musarò A, Volonté C, Ferraro E, Coccurello R, Valle C, Ferri A. *Br J Pharmacol.* 2022 Apr;179(8):1732-1752. doi: 10.1111/bph.15738. Epub 2022 Jan 13. PMID: 34783031.
65. **Mitochondrial Respiratory Complexes as Targets of Drugs: The PPAR Agonist Example** Bottoni P, Pontoglio A, Scarà S, **Pieroni L**, Urbani A, Scatena R. *Cells.* 2022 Mar 30;11(7):1169. doi: 10.3390/cells11071169. PMID: 35406733; PMCID: PMC8997591.

