



URBINO, SEPTEMBER 14-16, 2015

58° National Meeting of the Italian Society of Biochemistry and Molecular Biology

Università degli Studi di Urbino "Carlo Bo" Urbino

September 14 -16, 2015

RIEPILOGO CONGRESSO

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Programma Scientifico:

Lunedì 14 settembre

- 10.30 Apertura Segreteria e Registrazione dei partecipanti
Polo Scientifico-Didattico Paolo Volponi
- 14.30-15.00 Apertura del Congresso
Saluti di benvenuto
Aula Magna, Polo Scientifico-Didattico “Paolo Volponi” - Palazzo del Nuovo Magistero
- 15.00-16.00 **Letture “E. Antonini”** - Chairman: *Maurizio Brunori (Roma)*
Ada Yonath (Nobel Prize for Chemistry, Weizmann, IL): “Resistance to Antibiotics and Preserving the Microbiome”
Aula Magna, Polo Scientifico-Didattico “Paolo Volponi” - Palazzo del Nuovo Magistero
- 16.00-18.00 **Simposio plenario “Biochemistry for an active, healthy aging”**
Aula Magna, Polo Scientifico-Didattico “Paolo Volponi” - Palazzo del Nuovo Magistero
- Chairmen: *Vilberto Stocchi (Urbino), Silvana Hrelia (Bologna)*
- Key note speaker:** *Gerald I. Shulman (Yale University School of Medicine) “Cellular Mechanisms of Insulin Resistance: Implications for Obesity, Type 2 Diabetes and the Metabolic Syndrome”*
- Cristina Angeloni (Bologna): “Neuroprotection by nutraceutical sulforaphane: a protective strategy for a healthy ageing”*
Michele Guescini (Urbino): “The emerging role of extracellular vesicles in mediating muscle communication”
- Presentazioni selezionate dagli abstract presentati**
Marika Comegna (Napoli): “Proteomics unveils novel common genes mediating both replicative and stress-induced senescence”
Antonio De Flora (Genova): “Microgram amounts of abscisic acid in fruit extracts improve glucose tolerance and reduce insulinemia in rats and in humans”
Eleonora Da Pozzo (Pisa): “Protection against aging in rat cardiomyocytes by Naringenin, a component of Citrus genus”
- 18.00-20.00 **Poster session**
Welcome cocktail
Palazzo Ducale

Martedì 15 settembre

9.00-11.00 **Simposio plenario “Frontiers in Structural Biology”**

Aula Magna, Polo Scientifico-Didattico “Paolo Volponi” - Palazzo del Nuovo Magistero

Chairmen: *Menico Rizzi (Novara), Luisa Bracci (Siena)*

Key note speaker: *Wolfgang Baumeister (Max-Planck-Institute of Biochemistry-Martinsried)* “Structural Studies of the 26 S proteasome ex situ and in situ”

Martino Bolognesi (Milano): “Facing Infectious Diseases through Structural Vaccinology”

Presentazioni selezionate dagli abstract presentati

Stefano Ricagno (Milano): “Embelin binds to human neuroserpin and impairs its pathologic polymerization”

Luca Federici (Chieti): “Mapping nucleophosmin interactions for the targeted treatment of acute myeloid leukemia”

11.00-11.30 *Coffee break*

11.30-13.00 **Simposio parallelo “New aspects in molecular recognition”**

Aula Magna, Polo Scientifico-Didattico “Paolo Volponi” - Palazzo del Nuovo Magistero

Chairmen: *Alberto Passi (Varese), Mauro Maccarrone (Roma)*

Michela Tonetti (Genova): “The glycans of large DNA viruses: a new paradigm for glycosylation”

Mauro Maccarrone (Roma): “Membrane environment as a driver of endocannabinoid signaling”

Presentazioni selezionate dagli abstract presentati

Gianluca Damonte (Genova): “Matrix-assisted laser desorption ionization time of flight (MALDI-TOF) analysis identifies serum angiotensin II concentrations as a strong predictor of breast cancer (BCa)-specific mortality”

Monica Borgatti → *Giulia Breveglieri (Ferrara):* “Non-invasive prenatal testing for fetal sex determination on circulating free fetal DNA: a SPR-based approach”

Mirko Pinotti (Ferrara): “regulation of a strong F9 cryptic 5’ss by intrinsic elements and by combination of tailored U1snRNAs with antisense oligonucleotides”

Simposio parallelo “Industrial and medical uses of enzymes”

Aula Magna, Palazzo Battiferri

Chairmen: *Loredano Pollegioni (Insubria), Marco Moracci (Napoli)*

Gianfranco Gilardi (Torino): “A wedding made in heaven: Engineered monooxygenases and electrode interfaces”

Elena Rosini (Varese): “Therapeutic proteins: experimental strategies for an anticancer enzyme therapy”

Presentazioni selezionate dagli abstract presentati

Stefano Bruno (Parma): “Serine racemase: regulation by divalent cations and NADH”

Loredana Mariniello (Napoli): "Protein-based bioplastics crosslinked by transglutaminase"

Andrea Strazzulli (Napoli): "Discovering new Carbohydrate Active Enzymes for the plant biomass degradation for biorefineries: a metagenomic approach."

13.00-14.30 *Lunch*

14.30-16.30 **Simposio plenario "Blood vessels and blood cells: from basic science to applications"**
Aula Magna, Polo Scientifico-Didattico "Paolo Volponi" - Palazzo del Nuovo Magistero

Chairmen: *Federico Bussolino (Torino)- Mauro Magnani (Urbino)*

Key note speaker: *Vladimir Muzykantov (Philadelphia, USA): "Vascular Drug Delivery using blood cells"*

Alessandra Balduini (Pavia): "Bone marrow modeling for blood cell production"

Luca Primo (Torino): "Vascular branching in tumour angiogenesis"

Presentazioni selezionate dagli abstract presentati

Alessandro Malara (Pavia): "The plant hormone abscisic acid is a pro-survival agonist of mammalian megakaryocytes, the platelet progeny."

Ferdinando Mannello (Urbino): "Glycosaminoglycan sulodexide: "Janus Effect" in venous leg ulcer microenvironment"

16.30-17.00 *Coffee break*

17.00-18.30 **Discussione Poster**

Chairmen: *Andrea Bellelli, Luca Federici, Paolo Vincenzo Pedone e Mirko Pinotti*

Aula magna del Polo Scientifico-Didattico "Paolo Volponi" - Palazzo del Nuovo Magistero

PROTEINE

Dexamethasone-loaded biopolymeric nanoparticles and fibroblasts differentiation

Arcovito Alessandro (1-2), Palocci Cleofe (3), Nocca Giuseppina (1-4), Callà Cinzia (1), Amalfitano Adriana (3), Chronopoulou Laura (3)

(1) *Istituto di Biochimica e Biochimica Clinica, Università Cattolica del Sacro Cuore, Roma;* (2) *Centro di ricerca sulle Biotecnologie applicate alla Cosmetologia (CRBA), Università Cattolica del Sacro Cuore, Roma;* (3) *Dipartimento di Chimica, Sapienza Università di Roma, Roma;* (4) *Istituto di Chimica del Riconoscimento Molecolare - CNR, Roma*

Thermophilic microorganisms as source of enzymes for biofuel production

Martina Aulitto, Simonetta Bartolucci, Patrizia Contursi

Dipartimento di Biologia, Università degli studi di Napoli Federico II, Via Cinthia, 80126 Napoli, Italy

Different polyols selectively stabilize specific structural regions in Beta-lactoglobulin

Alberto Barbiroli, Dimitrios Fessas, Enzo Ragg, Stefania Iametti, Stefano Renzetti*, Francesco Bonomi

*DeFENS, University of Milan, Italy; *TNO, Utrecht, The Netherlands*

Flagellar subunits as targets for structure-based epitope discovery approaches and melioidosis vaccine development

Gourlay L.J. (1), Lassaux P. (1), Thomas R.J. (2), Peri C. (3), Conchillo-Solé O. (4), Nithichanon A. (5), Ferrer-Navarro M. (4), Vila J. (7), Daura X. (4), Lertmemongkolchai G. (5), Titball R. (2), Colombo G. (3), Martino Bolognesi (1)

(1) University of Milano, Dept. Biosciences, Milano, Italy; (2) University of Exeter, Exeter, United Kingdom; (3) Consiglio Nazionale delle Ricerche, Milano, Italy; (4) Universitat Autònoma de Barcelona, Barcelona, Spain; (5) Khon Kaen University, Khon Kaen, Thailand.

Modulation of the NF- κ B pathway by I-152, a pro-drug of N-acetyl-cysteine and beta-mercaptoethylamine

Alfonsina Mariarosaria Cangiano, Serena Brundu, Rita Crinelli, Alessandra Fraternali, Mauro Magnani
Department of Biomolecular Sciences, University of Urbino "Carlo Bo", Urbino (PU), Italy

HUMAN scFv 2G8: A NEW ANTIBODY AGAINST β 1,3-glucan OF PATHOGENIC FUNGI

Tomas Di Mambro (1-2), Marzia Bianchi (1), Giordano Serafini (1), Fabio Baroni (3), Alberto Spisni (3), Mauro Magnani (1-2)

(1) Università Degli Studi di Urbino "Carlo Bo" Dipartimento di Scienze Biomolecolari; (2) Diatheva s.r.l. Viale Piceno 137/F 61032 Fano (PU) Italy; (3) Università Degli Studi di Parma

Purification and kinetic characterization of myoglobin from *Sciurus vulgaris* L.

Antonella M. A. Di Giuseppe, Sara Ragucci, Nicola Landi, Antimo Di Maro
Dipartimento di Scienze e Tecnologie Ambientali, Biologiche e Farmaceutiche (DiSTABiF), Seconda Università di Napoli, Via Vivaldi 43, I-81100 Caserta, Italy

A novel source of microbial agents: characterization of an antimicrobial peptide from PD-L4, a type 1 ribosome inactivating protein from *Phytolacca dioica* L.

Elio Pizzo (1), Anna Zanfardino (1), Antonella MA Di Giuseppe (2), Andrea Bosso (1), Valeria Sgambati (1), Sara Ragucci (2), Nicola Landi (2), Antimo Di Maro (2)

(1) Dipartimento di Biologia, Università di Napoli Federico II, Via Cintia, I-80126 Napoli, Italy; (2) Dipartimento di Scienze e Tecnologie Ambientali, Biologiche e Farmaceutiche (DiSTABiF), Seconda Università di Napoli, Via Vivaldi, I-81100 Caserta, Italy

Different properties of RNase A dimers depend on the way the oligomers form

Andrea Fagagnini, Riccardo Montioli, Marcello Smania, Giovanni Gotte
Università degli Studi di Verona, Dipartimento di Scienze della Vita e della Riproduzione, Sezione di Chimica Biologica, Strada le Grazie, 8, I-37134, Verona, Italy

"Productive" readthrough over nonsense mutations depends on the interplay between translation termination efficiency and impact of aminoacid substitutions on protein biology

Mattia Ferrarese, Alessio Branchini, Marcello Baroni, Francesco Bernardi, Mirko Pinotti
Department of Life Sciences and Biotechnology, University of Ferrara, Ferrara, Italy

Molecular properties of LANCL2, a non-transmembrane G protein coupled receptor of the hormone Abscisic Acid in mammals

Chiara Fresia (1), C. Usai (2), M. Pesce (3), A. De Flora (1), E. Zocchi (1)
(1) Department of Experimental Medicine, Sec Biochemistry, University of Genova; (2) Institute of Biophysics, National Research Council (CNR), Genova; (3) Istituto Italiano di Tecnologia (IIT), Genova

Erythrocytes loaded with Phenylalanine Ammonia Lyase as a new Enzyme Replacement Therapy for Phenylketonuria in BTBR-PAHenu2 mice

Claudia Gabucci (1), Francesca Pierigè (1), Noemi Bigini (1), Claudia Carducci (2), Vincenzo Leuzzi (3), Mauro Magnani (1-4), Luigia Rossi (1-4)

(1) Dep. Biomolecular Sciences, University of Urbino "Carlo Bo" via Saffi 2, 61029 Urbino (PU), Italy; (2) Dep. Experimental Medicine, "Sapienza" University, viale del Policlinico 155, 00161 Rome, Italy; (3) Dep. Pediatrics and Child Neurology and Psychiatry, "Sapienza" University, via dei Sabelli 108, 00185 Rome, Italy; (4) Erydel SpA, via Sasso 36, 61029 Urbino (PU), Italy

Onconase Dimerizes through 3D Domain Swapping and Increases its Cytotoxicity

Giovanni Gotte, Andrea Fagagnini, Marco Cordani, Massimo Donadelli, Andrea Pica, Delia Picone
Università degli Studi di Verona, Dipartimento di Scienze della Vita e della Riproduzione, Sezione di Chimica Biologica, Strada le Grazie, 8, I-37134, Verona, Italy; Università degli Studi di Napoli "Federico II", Dipartimento di Scienze Chimiche, via Cintia, I-80126, Napoli, Italy

Structural and functional properties of bovine α 1-Acid glycoprotein

Beatrice Maggiore (1), Maurizio Baldassarre (2), Andrea Scirè (1), Fabio Tanfani (1)

(1) Department of Life and Environmental sciences, Università Politecnica delle Marche, Ancona (Italy); (2) Department of Biochemistry and Biophysics, Stockholm University, Stockholm (Sweden)

Pyridoxamine and pyridoxal are more effective than pyridoxine in rescuing two folding-defective variants of human alanine:glyoxylate aminotransferase causing primary hyperoxaluria type I

Elisa Oppici (1), Sonia Fargue (2), Emma S. Reid (3), Philippa B. Mills (3), Peter T. Clayton (3), Christopher J. Danpure (4), Barbara Cellini (1)

(1) Department of Life and Reproduction Sciences, University of Verona, Verona, Italy; (2) Department of Urology, University of Alabama, Birmingham, Alabama, USA; (3) Genetics and Genomic Medicine, UCL Institute of Child Health, London, UK; (4) Department of Cell & Developmental Biology, Division of Biosciences, University College London, London UK

HMGB1 and bone: induction of osteogenic phenotype in a SaOS-2 cellular model

Simona Martinotti (1), Marcello Manfredi (2), Marco Pedrazzi (3), Emilio Marengo (1), Elia Ranzato (1), Mauro Patrone (1)

(1) University of Piemonte Orientale, DISIT - Dipartimento di Scienze e Innovazione Tecnologica, viale Teresa Michel, 11 15121 Alessandria, Italy; (2) Isalit srl, sede legale: via Bovio, 6, Novara; sede operativa: Politecnico di Torino, sede di Alessandria, viale Teresa Michel 5, 15121 Alessandria; (3) Department of Experimental Medicine (DIMES)-Biochemistry Section, and Center of Excellence for Biomedical Research (CEBR), University of Genova, Viale Benedetto XV, 1-16132 Genova, Italy.

Pichia pastoris production of Prolyl-4 Hydroxylase derived from the marine sponge C. reniformis: a new biotechnological tool for recombinant production of marine collagen

Marina Pozzolini (1), Sonia Scarfi (1), Francesca Mussino (2), Annalisa Salis (1-3), Gianluca Damonte (2-3), Umberto Benatti (2-3), Marco Giovine (1-3)

(1) Department of Earth, Environment and Life Sciences, University of Genova, Via Pastore 3, 16132, Genova, Italy; (2) Department of Experimental Medicine, Section of Biochemistry, Viale Benedetto XV, 1, 16132, Genova, Italy; (3) Centre of Excellence for Biomedical Research, University of Genova, Viale Benedetto XV, 5, 16132, Genova, Italy

Plasma membrane redox system in the erythrocytes of rowers: pilot study

Patrizia Proia, Danila Di Majo, Valentina Contrò, Antonino Bianco, Elena Joana Armeli, Claudia Cannizzaro, Marco Giammanco, Maurizio La Guardia, Università degli studi, Palermo

Expression and intracellular localization of H1^o mRNA-containing complexes in developing rat brain and astrocytes

Carlo Maria Di Liegro (1), Alessandra Di Gregorio (1-2), Gabriella Schiera (1), Italia Di Liegro (2)

(1) Dipartimento di Scienze e Tecnologie Biologiche Chimiche e Farmaceutiche, University of Palermo, Palermo, Italy; (2) Dipartimento di Biomedicina sperimentale e Neuroscienze cliniche, University of Palermo, Palermo, Italy.

Effect of the antimetabolite 6-aminonicotinamide on Leishmania infantum promastigotes

Shawgi Almugadam, Tiziana Bellini, Carlo Contini (1), Martina Maritati (1), Alessandro Trentini, Gianluca Rugna (2), Franco Dallochio, Stefania Hanau

Dept. of Biomedical and Specialty Surgical Sciences, Biochemistry Unit, Ferrara University; (1) Department of Medical Sciences, Section of Infectious Diseases, Ferrara University; (2) Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna, Brescia, Sezione di Modena

Conserved cysteines mutagenesis in Major Urinary Protein: a new insight in folding stability and reversibility

Elena Ferrari (1), Romina Corsini (2), Giulia Rizzatello (1), Alberto Spisni (3)

(1) Dipartimento di Scienze Biomediche, Biotecnologiche e Traslazionali, sez. di Biochimica, Università degli Studi di Parma; (2) Dipartimento di Medicina Interna e specialità mediche, Unità Operativa Malattie Infettive, Arcispedale Santa Maria Nuova -IRCCS, Reggio Emilia; (3) Dipartimento di Scienze Chirurgiche, Università degli Studi di Parma

Biomarkers Mapping in a Neuropathic Pain Mice Model with Sciatic Nerve Chronic Constriction Injury (CCI)

Yaqi Huang, Stefania Pucciarelli, Valeria Polzonetti, Daniela Micozzi, Catia Lambertucci (1), Ajiroghene Thomas (1), Giulia Scuppa (1), Laura Soverchia (1), Massimo Ubaldi (1), Silvia Vincenzetti

Scuola di Bioscienze e Medicina Veterinaria; (1) Scuola di Scienze del Farmaco e dei Prodotti della Salute, Università di Camerino, Camerino (MC).

ALTRO

Validation of a HPLC method for the simultaneous analysis of cysteine and reduced glutathione in mouse organs

Serena Brundu (1), Lucia Nencioni (2), Ignacio Celestino (2), Paolo Coluccio (2), Anna Teresa Palamara (2-3), Mauro Magnani (1), Alessandra Fraternali (1)

(1) Department of Biomolecular Sciences, University of Urbino "Carlo Bo", Urbino (PU), Italy; (2) Department of Public Health and Infectious Diseases, Pasteur Institute, Cenci-Bolognetti Foundation, "Sapienza" University of Rome, Rome, Italy; (3) San Raffaele Pisana Scientific Institute for Research, Hospitalization, and Health Care, Rome, Italy

New insights into the trophic and cytoprotective effects of creatine in in vitro and in vivo models of cell maturation.

P. Sestili, E. Barbieri, Cinzia Calcabrini, E. Polidori, L. Vallorani, M. Guescini, F. Luchetti, B. Canonico, A.R. Diaz and V. Stocchi

Department of Biomolecular Sciences, University of Urbino Carlo Bo, Via Saffi, 2, 61029 Urbino (PU), ITALY.

Zc3h10 is a novel RNA binding protein that integrates mitochondrial biogenesis and cell differentiation in myocyte precursors

Emma De Fabiani (1), Matteo Audano (1), Gaia Cermenati (1), Maurizio Crestani (1), Donatella Caruso (1), Serena Ghisletti (2), Enrique Saez (3), Nico Mitro (1)

(1) Dipartimento di Scienze Farmacologiche e Biomolecolari, Università degli Studi di Milano, 20133 Milan; (2) Department of Experimental Oncology, European Institute of Oncology (IEO), 20139 Milan; (3) Department of Chemical Physiology, The Scripps Research Institute, La Jolla, CA 92037, USA

Expression of host stress markers following Leishmania infantum infection in a cell culture model

Aurora Diotallevi, Luca Galluzzi, Mauro De Santi, Marcello Ceccarelli, Mauro Magnani

Department of Biomolecular Sciences, University of Urbino Carlo Bo, 61029 Urbino (PU), Italy

Acute and sub-acute in-vivo treatment with ultrafine particles form an anthropogenic source

Chiara Milani, Laura Botto, Elena Lonati, Alessandra Bulbarelli, Paola Palestini, Francesca Farina

Department of Health Science, Polaris Centre, University of Milano-Bicocca, Monza, Italy.

Chitosan and modified Cyclodextrin nanoparticles for delivery of antioxidants in human keratinocytes

Giusi Giada Picceri (1), Nicolino Mastroianni (1), Adriana Trapani (2), Lucia Montenegro (3), Laura Chiarantini (1).

(1) Dipartimento di Scienze Biomolecolari, Università di Urbino Carlo Bo; (2) Dipartimento di Farmacia-Scienze del Farmaco, Università di Bari; (3) Dipartimento di Scienze del Farmaco, Università di Catania.

Chairmen: Francesco Bonomi, Paola Chiarugi, Antonio De Flora, Francesco Paolo Mancini, Luigi Palmieri

Aula Magna - Palazzo Battiferri

BIOLOGIA COMPUTAZIONALE E DI SISTEMA

From protein variants to biological processes and pathways with NET-GE.

Samuele Bovo, Pietro Di Lena, Pier Luigi Martelli, Piero Fariselli, Rita Casadio

Bologna Biocomputing Group - University of Bologna, Bologna, Italy

Differential effect of alpha-ketoglutarate and nonessential amino acids upon glutamine substitution in normal and K-ras transformed mouse fibroblasts

Gaia De Sanctis, Elena Sacco, Michela Spinelli, Cinzia Guzzi, Cristina Airoidi, Lilia Alberghina and Marco Vanoni.

Department of Biotechnology and Biosciences, University of Milano-Bicocca, Piazza della Scienza 2, 20126 Milan, Italy; SYSBIO, Centre of Systems Biology, Milan, Italy

INGA: Protein function prediction combining interaction networks, domain assignments and sequence similarity

Damiano Piovesan (1), Manuel Giollo (1-2), Emanuela Leonardi (3), Carlo Ferrari (2), Silvio C. E. Tosatto (1-4)

(1) Department of Biomedical Sciences, University of Padua, Padua, Italy; (2) Department of Information Engineering, University of Padua, Padua, Italy; (3) Department of Women's and Children's Health, University of Padua, Padua, Italy; (4) CNR Institute of Neuroscience, Padua, Italy)

Analysis of the action mechanism of a water-soluble Ras inhibitor with antiproliferative activity

Michela Spinelli (1-2), Alessandro Palmioli (1), Elisa Mazzoleni (1), Annalisa D'Urzo (1), Stefano Lamperti (1), Cristina Airoidi (1-2), Marco S. Nobile (2-3), Paolo Cazzaniga (2-4), Daniela Besozzi (2-5), Luca De Gioia (1-2), Francesco Peri (1), Marco Vanoni (1-2), Elena Sacco (1-2).

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(2) *SYSBIO, Centre of Systems Biology, Milan, Italy;* (3) *Department of Informatics, Systems and Communication, University of Milano-Bicocca, Viale Sarca 336, 20126 Milan, Italy;* (4) *Department of Human and Social Sciences, University of Bergamo, Piazza S. Agostino 2, 24149 Bergamo, Italy;* (5) *Department of Computer Science, University of Milan, Via Comelico 39, 20135 Milan, Italy)*

DIFFERENZIAMENTO E TRASFORMAZIONE NEOPLASTICA

Chronic hypoxia induces dormancy in breast cancer cell line MDA-MB-231.

Alessandra Carcereri de Prati, Elena Butturini, Giulia Chiavegato, Elisa Oppici, Michele Rossin, Sofia Mariotto.
Department of Life and Reproduction Sciences, Biochemistry Section, University of Verona, Verona, Italy.

Human IGF1 pro-forms (pro-hormones IGF1-Ea -Eb -Ec) induce breast cancer cell proliferation via IGF1-R

Mauro De Santi, Giosuè Annibalini, Serena Contarelli, Elena Barbieri, Anna Villarini, Luciana Vallorani, Franco Berrino, Vilberto Stocchi, Giorgio Brandi

Department of Biomolecular Sciences, Exercise and Health Sciences Unit, University of Urbino Carlo Bo, Urbino (PU), Italy.

P53 functionality is reactivated in glioblastoma multiforme by the diterpene derivative carnosol from Rosemary officinalis

Chiara Giacomelli (1), M.L. Trincavelli (1-2), L. Natali (1), S. Daniele (1), A. Bertoli (1), G. Flamini (1), A. Braca (1-2), C. Martini (1)

(1) *Dept. Pharm., Univ. of Pisa, PISA, Italy;* (2) *Centro Interdipartimentale di Ricerca "Nutraceutica e Alimentazione per la Salute", Univ. of Pisa, via del Borghetto 80, 56124 Pisa, Italy*

Combined treatment of human glioma cell lines with antagomiRNA PNAs and pre-miRNA molecules induces high levels of apoptosis

Giulia Montagner (1), Enrica Fabbri (1), Eleonora Brognara (1), Jessica Gasparello (1), Nicoletta Bianchi (1), Alessia Finotti (1), Giulia Breviglieri (1), Monica Borgatti (1), Ilaria Lampronti (1), Roberta Milani (1), Roberto Corradini (2) Giulio Cabrini (1) *Department of Life Sciences and Biotechnology, Ferrara;* (2) *Department of Chemistry, University of Parma, Italy;* (3) *Laboratory of Molecular Pathology, University-Hospital, Verona, Italy*

Gender-related survival differences associated with polymorphic variants (SNP) and microRNA related to circadian system in metastatic colorectal cancer (mCRC) PATIENTS (pts)

Teresa Ricciardi, Annamaria Ruzzo, Angela Torsello*, Isabella Sperduti*, Elisa Giacomini, Elisa Melucci*, Massimo Zeuli*, Marcella Mottolese*, Roberta Fiorino, Edoardo Pescarmona*, Carlo Garufi*, Mauro Magnani.

University of Urbino "Carlo Bo" – Department of Biomolecular Science.

5-fluorouracil-modulated changes in metabolism and redox potential in 5FU-resistant HT29 cell lines

Elena Sacco (1-3) *, Paolo Paoli (2)*, Valentina Vergani (1), Ilaria Prencipe (1), Denise Corti (2), Paola Chiarugi (2), Marco Vanoni (1-3)

(1) *Dept. Biotechnology and Bioscience, University of Milano-Bicocca, Piazza della Scienza 2, 20126 Milano, Italy;*

(2) *Dept. Experimental and Clinical Biomedical Sciences, Biochemistry, Human Health Medical School, University of Florence, Viale Morgagni 50, 50134 Florence, Italy;* (3) *SYSBIO, Centre of Systems Biology, Milan, Italy*

* *equally contributing authors*

INVECCHIAMENTO E PATOLOGIE DEGENERATIVE

Endogenous fatty acid synthesis is required to maintain peripheral nerve structure and function.

Nico Mitro (1), Gaia Cermenati (1), Matteo Audano (1), Silvia Giatti (1), Maurizio D'Antonio (2), Emma De Fabiani (1), Maurizio Crestani (1), Enrique Saez (3), Iñigo Azcoitia (4), Guido Cavaletti (5), Luis-Miguel Garcia-Segura (6), Roberto C. Melcangi (1), Donatella Caruso (1)

(1) *DiSFeB, Dipartimento di Scienze Farmacologiche e Biomolecolari, Università degli Studi di Milano, Milano, 20133, Italy;* (2) *Division of Genetics and Cell Biology, IRCCS San Raffaele Scientific Institute, Milano, 20132, Italy;* (3) *Department of Chemical Physiology, The Scripps Research Institute, La Jolla, CA 92037, USA;* (4) *Departamento de Biología Celular, Facultad de Biología, Universidad Complutense de Madrid, Madrid, E-28040, Spain;* (5) *Experimental Neurology Unit, Department of Surgery and Translational Medicine, Università degli Studi Milano-Bicocca, Monza, 20052, Italy;* (6) *Instituto Cajal, C.S.I.C., Madrid, E-28002, Spain.*

Metabolomic analysis of red blood cells during storage in blood bank conditions

Thelma Pertinhez (1), E. Casali (2), P. Berni (1), A. Spisni (3), R. Baricchi (1)

(1) IRCCS, Arcispedale S. Maria Nuova, Reggio Emilia, Italy; (2) Dept. S.Bi.Bi.T., University of Parma, Italy; (3) Dept. Surgical Science, University of Parma, Italy

MEMBRANE

Tumor Necrosis Factor-alpha potentiated pro-differentiating effects of A2B adenosine receptor towards osteoblasts by impairing receptor desensitization.

Maria Letizia Trincavelli, Letizia Natali, Simona Daniele, Claudia Martini

Department of Pharmacy. University of Pisa. Pisa, Italy

NUTRIZIONE E AMBIENTE

Phytochemicals from the genus Beta and their cytotoxic activity on Caco-2 colon cancer cells.

Alessandra Frati (1), Farabegoli F. (2), Papi A. (3), Scarpa E.S. (1), Serafini G. (1), Benedetti S. (1), Ninfali P. (1)

(1) Department of Biomolecular Sciences, University of Urbino "Carlo Bo", Urbino, Italy; (2) Department of Experimental Pathology, University of Bologna, Bologna, Italy; (3) Department of Evolutionary Biology, University of Bologna, Bologna, Italy.

Effect of different metals on oxidative state and mitochondrial membrane potential in trout erythrocytes

Patrick Orlando (1), Sonia Silvestri (1), Francesca Brugè (1), Giancarlo Falcioni (2), Luca Tiano (1)

(1) Department of Clinical Dental Sciences, Polytechnic University of Marche, Ancona, Italy; (2) School of Pharmacy and Health Products, University of Camerino, Italy

18.30-20.00 Assemblea soci SIB

21.00 Cena Sociale
Palazzina Sabatelli

Mercoledì 16 settembre

9.00-10.30 **Simposio plenario "Metabolism and Computational Biology"**

Aula Magna, Polo Scientifico-Didattico "Paolo Volponi" - Palazzo del Nuovo Magistero

Chairmen: *Lilia Alberghina (Milano), Rita Casadio (Bologna)*

Lilia Alberghina (Milano) "Systems Biology of cancer metabolic rewiring"

Andrea Urbani (Roma) "Redefining the role of H₂S in neurodegenerative disorders"

Presentazioni selezionate dagli abstract presentati

Gennaro Agrimi (Bari): "Metabolic flux analysis of saccharomyces cerevisiae strains with an altered mitochondrial pyruvate oxidation"

Silvio Tosatto (Padova): "Non-globular proteins: Towards an understanding of the "dark matter" in the protein universe"

Paola Coccetti (Milano): "Glucose and Amino Acids Addiction Is a Typical Hallmark of Snf1/AMPK-Deficient Cells"

Pier Luigi Martelli (Bologna): "The effect of OMIM disease-related variations on protein stability: a large-scale investigation"

10.30-11.00 *Coffee break*

11.00-12.45 **Simposio parallelo: "Vesicles trafficking and intercellular communications"**
Aula Magna, Polo Scientifico-Didattico "Paolo Volponi" - Palazzo del Nuovo Magistero

Chairmen: *Vito De Pinto (Catania), Laura Mazzanti (Ancona)*

Roberto Furlan (Milano): "Microglial EVs: new messengers during neurological disorders"

Benedetta Bussolati (Torino): "Stem cell-derived extracellular vesicles for tissue repair"

Marina Pitto (Milano): "Urinary exosomes: vesicles for biomarker trafficking"

Presentazioni selezionate dagli abstract presentati

Enrico Dainese (Teramo): "Iron modulates the membrane-binding and the intracellular trafficking of 5-lipoxygenase: functional implications in neurodegeneration"

Italia Di Liegro (Palermo): "Melanoma cells release extracellular vesicle which contain H1° linker histone as well as RNA-binding proteins which bind to the H1° mRNA."

Davide Vigetti (Varese): "Emerging role of long non coding RNA in the regulation of hyaluronan synthesis"

Simposio parallelo "Ubiquitin and ubiquitin-dependent pathways"

Aula Magna, Palazzo Battiferri

Chairmen: *Mauro Piacentini (Roma), Marzia Bianchi (Urbino)*

Francesca Bernassola (Roma): "The E3 ubiquitin ligase WWP1 sustains the growth of acute myeloid leukemia blasts"

Mauro Piacentini (Roma): "The interplay between Ambra1 and the cullin E3 ligases regulates the dynamics of autophagy"

Presentazioni selezionate dagli abstract presentati

Chiara Lanzillotta (Roma): "Ubiquitin-bound protein profile in human brain from Down Syndrome individuals prior and after the development of Alzheimer-like dementia."

Rita Crinelli (Urbino): "Proteotoxic stress, heat shock factors and Ubiquitin C gene induction: new insights into an old story"

12.45-13.45 *Lunch*

13.45-15.15 **Simposio parallelo "Tumor cell plasticity, stem cells and therapy resistance"**
Aula Magna, Polo Scientifico-Didattico "Paolo Volponi" - Palazzo del Nuovo Magistero

Chairmen: *Renza Vento (Palermo), Roberto Scatena (Roma)*

*Riccardo Di Fiore (Palermo) → **sostituisce Renza Vento per Presentazione Poster Selezionato** "In human osteosarcoma 3AB-OS cancer stem cells let-7d seems to have the dual function of oncogene/tumor-suppressor miRNA"*

Marta Palmieri (Verona): "Cancer stem cells: a new frontier to understand pancreas cancer biology"

Roberto Scatena (Roma): "Pathophysiological interrelationships between MSC and CSC. An example of cancer cell plasticity with potential clinical implications"

Presentazioni selezionate dagli abstract presentati

Daniela Capello (Vercelli): "Diacylglycerol kinase alpha contributes to tumorigenicity and invasiveness of glioblastoma stem cells"

Ferdinando Chiaradonna (Milano): "PKA activation promotes cancer cell resistance to glucose starvation and to anoikis"

Simposio parallelo "Redox regulation of biological activities"

Aula Magna, Palazzo Battiferri

Chairmen: *Maria Ciriolo (Roma), Marzia Perluigi (Roma)*

Key note speaker: *Bernhard Brune (Università di Francoforte): "Tumor-associated macrophages – sensing and producing redox changes"*

Giuseppe Poli (Torino): "Survival signaling activated by 27-hydroxycholesterol in cells of the macrophage lineage"

Presentazioni selezionate dagli abstract presentati

Barbara Campanini (Parma): "CysK, a hub in the regulation of cysteine biosynthesis in E. coli"

Emmanuele De Vendittis (Napoli): "Glutathione biosynthesis in a cold-adapted source"

Alessandra Fraternali (Urbino): "Thiol depletion and Th2 polarization: which role for pro-glutathione molecules as immunotherapeutics?"

15.15-15.30 *Break*

15.30-17.30 **Simposio plenario: "Nanobiotechnology for diagnostic and therapeutic applications"**

Aula Magna, Polo Scientifico-Didattico "Paolo Volponi" - Palazzo del Nuovo Magistero

Chairmen: *Cesare Balduini (Pavia), Massimo Masserini (Milano)*

Key note speaker: *Mauro Ferrari (Houston Methodist) "MultiStage Vectors and Transport Oncophysics"*

Mauro Magnani (Urbino): "Red Blood Cells as carriers for drugs and contrasting agents"

Massimo Masserini (Milano): "Nanomedicine and therapy of Alzheimer disease"

Presentazioni selezionate dagli abstract presentati

Francesca Re (Milano): "Exploiting physiological proteins to drive drug-carrying nanoparticles across the blood-brain barrier"

Jlenia Brunetti (Siena): "Targeting Heparan Sulfate Proteoglycans by branched NT4 peptides for selective cancer imaging and therapy"

Alessandro Arcovito (Roma): "A novel approach against biofilm-growing microbial strains: functionalized virus-like particles with antimicrobial peptides"

17.30

Conclusioni e chiusura del Congresso

Sessione poster

Biologia computazionale e di sistema

P1 - Molecular evolution of Mammalia IGF-1 isoforms: the tail wagging the dog

Giosuè Annibalini (1), Pamela Bielli (2), Mauro De Santi (1), Deborah Agostini (1), Michele Guescini (1), Davide Sisti (1), Serena Contarelli (1), Giorgio Brandi (1), Claudio Sette (2), Vilberto Stocchi (1), Elena Barbieri (1)

(1) *Department of Biomolecular Sciences, University of Urbino Carlo Bo, Urbino, Italy.*

(2) *Department of Biomedicine and Prevention, University of Rome Tor Vergata, Rome, Italy*

P2 - From protein variants to biological processes and pathways with NET-GE.

Samuele Bovo, Pietro Di Lena, Pier Luigi Martelli, Piero Fariselli, Rita Casadio

Bologna Biocomputing Group - University of Bologna, Bologna, Italy

P3 - Application of a computational approach to identify protein targets for 4-nonylphenol

Deborah Giordano (1), Maria De Vita (1), Bernardina Scafuri (1), Ivana Caputo (1-2), Flaminia Gay (3), Anna Capaldo (3), Carla Esposito (1-2), and Anna Marabotti (1-2)

(1) *Dept. of Chemistry and Biology, University of Salerno, Fisciano (SA), Italy;* (2) *European Laboratory for the Investigation of Food-Induced Diseases (ELFID), University of Salerno, Fisciano (SA);* (3) *Dept. of Biology, University Federico II, Naples, Italy.*

P4 - A computational strategy to investigate alternative metabolic responses to the same stimulus

Chiara Damiani (1-2), Riccardo Colombo (1-2), Dario Pescini (1-3), Marzia Di Filippo (1-2), Marco Vanoni (1-4), Giancarlo Mauri (1-2), Lilia Alberghina (1-4)

(1) *SysBio - Centre of Systems Biology, Milano;* (2) *Dipartimento di Informatica, Sistemistica e Comunicazione, Università degli Studi di Milano-Bicocca, Milano;* (3) *Dipartimento di Statistica e Metodi Quantitativi, Università degli Studi di Milano-Bicocca, Milano;* (4) *Dipartimento di Biotecnologie e Bioscienze, Università degli Studi di Milano-Bicocca, Milano*

P5 - Differential effect of alpha-ketoglutarate and nonessential amino acids upon glutamine substitution in normal and K-ras transformed mouse fibroblasts

Gaia De Sanctis, Elena Sacco, Michela Spinelli, Cinzia Guzzi, Cristina Airoidi, Lilia Alberghina and Marco Vanoni.

Department of Biotechnology and Biosciences, University of Milano-Bicocca, Piazza della Scienza 2, 20126 Milan, Italy; *SYSBIO, Centre of Systems Biology, Milan, Italy*

P6 - MDM2/p53 complex dissociation and TSPO as therapeutic gain in gliomas: structural study and activity optimization of 2-Phenylindol-3ylglyoxyldipeptides

Claudia Martini (1), C. Giacomelli (1), S. Daniele (1), E. Da Pozzo (1), V. La Pietra (2), E. Barresi (1), M. Robello (1), S. Taliani (1), S. Di Maro (2), E. Novellino (2), L. Marinelli (2), F. Da Settimo (1)

(1) *Dept. Pharm., Univ. of Pisa, PISA, Italy;* (2) *Dept. Pharm., Univ. of Naples Federico II, Naples, Italy*

P7 - INGA: Protein function prediction combining interaction networks, domain assignments and sequence similarity

Damiano Piovesan (1), Manuel Giollo (1-2), Emanuela Leonardi (3), Carlo Ferrari (2), Silvio C. E. Tosatto (1-4)

(1) *Department of Biomedical Sciences, University of Padua, Padua, Italy;* (2) *Department of Information Engineering, University of Padua, Padua, Italy;* (3) *Department of Women's and Children's Health, University of Padua, Padua, Italy;* (4) *CNR Institute of Neuroscience, Padua, Italy)*

P8 - Animal models of Desbuquois Dysplasia type 1 to study the role of CANT1 in proteoglycan metabolism

Luca Monti (1), Chiara Paganini (1), Rossella Costantini (1), Silvia Maruelli (1), Silvia Lecci (1), Marco Biggiogera (2), Celine Huber (3), Valerie Cormier-Daire (3), Antonella Forlino (1), Antonio Rossi (1) (1)*Dept. Molecular Medicine, Unit of Biochemistry, University of Pavia, Italy;* (2)*Dept. Biology & Biotechnology, University of Pavia, Italy;* (3)*Dept. Genetics and INSERM UMR1163, Hôpital Necker Enfants Malades, Paris, France.*

P9 - Analysis of the action mechanism of a water-soluble Ras inhibitor with antiproliferative activity

Michela Spinelli (1-2), Alessandro Palmioli (1), Elisa Mazzoleni (1), Annalisa D'Urzo (1), Stefano Lamperti (1), Cristina Airoidi (1-2), Marco S. Nobile (2-3), Paolo Cazzaniga (2-4), Daniela Besozzi (2-5), Luca De Gioia (1-2), Francesco Peri (1), Marco Vanoni (1-2), Elena Sacco (1-2).

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University of Bergamo, Piazza S. Agostino 2, 24149 Bergamo, Italy; (5) Department of Computer Science, University of Milan, Via Comelico 39, 20135 Milan, Italy)

Differenziamento e trasformazione neoplastica

P10 - Galectin 3 functions in high risk human papilloma virus (HPV) positive cervical carcinoma cell lines

Roberta Cotugno, Lucia Angellotti, Maria Antonietta Belisario

Dipartimento di Farmacia, Università di Salerno, Via Giovanni Paolo II, 84084, Fisciano (SA)

P11 - Enhanced expression of paraoxonase 2 in human bladder cancer

Tiziana Bacchetti (1), Gianna Ferretti (2), Rachela Giuliente (2), Davide Sartini (2), Riccardo Seta (2), Valentina Pozzi (3), Monica Emanuelli (2-3)

(1) Department of Life and Environmental Sciences, Polytechnic University of Marche, Ancona, Italy; (2) Department of Clinical Sciences, Polytechnic University of Marche, Ancona, Italy; (3) New York-Marche Structural Biology Center (NY-MaSBiC), Polytechnic University of Marche, Ancona, Italy

P12 - Phosphorylation at Serine 10 of p27 and its role in CKI nuclear metabolism

Debora Bencivenga, Annunziata Tramontano, Aide Negri (§), Ilaria Caldarelli, Maria Carmela Speranza, Emanuela Stampono, Fulvio Della Ragione, Adriana Borriello

Department of Biochemistry, Biophysics and General Pathology, Second University of Naples; (§) Dipartimento di Scienze Biomediche Sperimentali e Cliniche, Università degli Studi di Firenze, Florence

P13 - Chronic hypoxia induces dormancy in breast cancer cell line MDA-MB-231.

Alessandra Carcereri de Prati, Elena Butturini, Giulia Chiavegato, Elisa Oppici, Michele Rossin, Sofia Mariotto.

Department of Life and Reproduction Sciences, Biochemistry Section, University of Verona, Verona, Italy.

P14 - Methylome profiling of post-transplant diffuse large B-cell lymphomas (PT-DLBCL)

Daniela Capello (1), A. Rinaldi (2), I. Kwee (2), G. Bhagat (3), A. Rambaldi (4), M. Gambacorta (5), E. Morra (5), D. Rossi (1), M. Lucioni (7), M. Paulli (7), A. Graziani (1), G. Gaidano (1), F. Sinigaglia (1), F. Bertoni (2)

(1) Dept. of Translational Medicine, University of Piemonte Orientale, Novara, Italy; (2) IOSI, Bellinzona, Switzerland; (3) Columbia University, NY, United States; (4) Ospedali Riuniti, Bergamo, Italy; (5) Ospedale Niguarda Ca' Granda, Milan, Italy; (6) Policlinico S. Matteo, Pavia, Italy

P15 - The antiproliferative properties of Cidofovir in tumor cell lines

Simona Catalani (1), Serena Benedetti (1), Serafina Battistelli (1), Francesco Palma (1), Barbara Nuvoli (2), Rossella Galati (2)

(1) Department of Biomolecular Sciences, Section of Clinical Biochemistry and Cellular Biology, University of Urbino "Carlo Bo", Italy; (2) Unit of Molecular Medicine, Regina Elena National Cancer Institute, Rome, Italy.

P16 - Human IGF1 pro-forms (pro-hormones IGF1-Ea -Eb -Ec) induce breast cancer cell proliferation via IGF1-R

Mauro De Santi, Giosuè Annibalini, Serena Contarelli, Elena Barbieri, Anna Villarini, Luciana Vallorani, Franco Berrino, Vilberto Stocchi, Giorgio Brandi

Department of Biomolecular Sciences, Exercise and Health Sciences Unit, University of Urbino Carlo Bo, Urbino (PU), Italy.

P17 - ER α -derived breast cancer stem cells reveal a high expression of the serpin protease inhibitor PI-9.

Lauricella M. (1), Carlisi D. (1), Giuliano M. (2), Calvaruso G. (2), Vento R. (2), Antonella D'Anneo (2).

(1) Dipartimento di Biomedicina Sperimentale e Neuroscienze Cliniche, Laboratorio di Biochimica, Università di Palermo, Italy; (2) Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche, Laboratorio di Biochimica, Università di Palermo, Italy.

P18 - 3D mesothelioma spheroids as intermediates between monolayer culture and in vivo tumor to test anticancer drugs.

Vanessa D'Antongiovanni, G. Nesi, S. Sestito, S. Rapposelli, L. Giusti, A. Lucacchini, M.R. Mazzoni.

Department of Pharmacy – University of Pisa, Pisa - Italy.

P19 - P53 functionality is reactivated in glioblastoma multiforme by the diterpene derivative carnosol from Rosemary officinalis

Chiara Giacomelli (1), M.L. Trincavelli (1-2), L. Natali (1), S. Daniele (1), A. Bertoli (1), G. Flamini (1), A. Braca (1-2), C. Martini (1)

(1) Dept. Pharm., Univ. of Pisa, PISA, Italy; (2) Centro Interdipartimentale di Ricerca "Nutraceutica e Alimentazione per la Salute", Univ. of Pisa, via del Borghetto 80, 56124 Pisa, Italy

P20 - WIN-induced vesiculation cooperates to the inhibition of osteosarcoma cell migration

Antonietta Notaro, Giuseppe Fiasconaro, Fabiana Geraci, Antonella D'Anneo, Giuseppe Calvaruso, Michela Giuliano
Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche (STEBICEF), Università degli Studi Palermo, Italy

P21 - Effects of alpha-mangostin on cell growth, viability and metabolic activity evaluated in a hypoxic model of breast cancer spheroids

Claudia Pazzini (1), Francesca Bonafè (1), Emanuele Giordano (2-3), Claudio Muscari (1-3), Carlo Guarnieri (1-3)
(1) Department of Biomedical and Neuromotor Sciences, University of Bologna, Bologna, Italy; (2) Laboratory of Cellular and Molecular Engineering "Silvio Cavalcanti"; Department of Electrical, Electronic and Information Engineering "Guglielmo Marconi" (DEI), University of Bologna, Cesena, Italy; (3) Health Sciences and Technologies - Interdepartmental Center for Industrial Research (HST-ICIR), University of Bologna, Via Tolara di Sopra 41/E, 40064 Ozzano dell'Emilia (BO), Italy

P22 - New Insight into Malignant Tumours of Major Salivary Glands by Proteomic Approach

Laura Giusti (1), Elena Donadio (1), Federica Ciregia (1), Veronica Seccia (2), Iacopo Dallan (2), Gino Giannaccini (1), Stefano Sellari-Franceschini (2), Antonio Lucacchini (1)
(1) Department of Pharmacy, University of Pisa, Pisa, Italy; (2) 1st Ear Nose Throat Unit, Azienda Ospedaliero Universitaria Pisana, Pisa, Italy

P23 - New potential biomarkers for malignant pleural mesothelioma diagnosis and therapy efficacy evaluation

Laura Giusti (1), Federica Ciregia (1-2), Elena Donadio (1), Claudia Boldrini (1), Ylenia Da Valle (1), Alessandra Bonotti (3), Rudy Foddis (3), Gino Giannaccini (1), Maria R. Mazzoni (1), Alfonso Cristaudo (3), Antonio Lucacchini (1)
(1) Department of Pharmacy, University of Pisa, Italy; (2) Fondazione Santa Lucia, Rome, Italy; (3) Department of Translational Research and New Technologies in Medicine and Surgery, University of Pisa, Italy

P24 - Combined treatment of human glioma cell lines with antagomiRNA PNAs and pre-miRNA molecules induces high levels of apoptosis

Giulia Montagner (1), Enrica Fabbri (1), Eleonora Brognara (1), Jessica Gasparello (1), Nicoletta Bianchi (1), Alessia Finotti (1), Giulia Breveglieri (1), Monica Borgatti (1), Ilaria Lampronti (1), Roberta Milani (1), Roberto Corradini (2) Giulio Cabrini (1)
(1) Department of Life Sciences and Biotechnology, Ferrara; (2) Department of Chemistry, University of Parma, Italy; (3) Laboratory of Molecular Pathology, University-Hospital, Verona, Italy

P25 - Human mesenchymal stem cells secretome investigated by using a label-free proteomic approach

Nonnis S. (1), Zanotti L. (3), Maffioli E. (2), Santagata F. (1), Armando Negri (1), Chiesa L. (1), Viola A. (3), Tedeschi G. (1-2)
(1) University of Milan-DIVET, Italy; (2) Fondazione Filarete, Milan, Italy, (3) Humanitas Clinical and Research Center, Rozzano, Italy

P26 - Gender-related survival differences associated with polymorphic variants (SNP) and microRNA related to circadian system in metastatic colorectal cancer (mCRC) PATIENTS (pts)

Teresa Ricciardi, Annamaria Ruzzo, Angela Torsello*, Isabella Sperduti*, Elisa Giacomini, Elisa Melucci*, Massimo Zeuli*, Marcella Mottoliese*, Roberta Fiorino, Edoardo Pescarmona*, Carlo Garufi*, Mauro Magnani.
University of Urbino "Carlo Bo" – Department of Biomolecular Science.

P27 - Accumulation of the intermediate of cholesterol biosynthesis FF-MAS in HepG2 cells results in endogenous LXR activation

Leonardo Gatticchi (1), Bartolomeo Sebastiani (2), Rita Roberti (1)
(1) Department of Experimental Medicine; (2) Department of Chemistry, Biology, and Biotechnology, University of Perugia, Perugia, Italy

P28 - Evaluation of vitamin D, lipid panel, and oxidative stress status in women with uterine leiomyomas

Jacopo Sabbatinelli, Alessia Giulietti, Arianna Vignini, Stefano Raffaele Giannubilo, Marta Tassetti, Laura Mazzanti, Andrea Ciavattini
Dipartimento di Scienze Cliniche Specialistiche ed Odontostomatologiche, Università Politecnica delle Marche, Ancona, Italy

P29 - 5-fluorouracil-modulated changes in metabolism and redox potential in 5FU-resistant HT29 cell lines

Elena Sacco (1-3) *, Paolo Paoli (2)*, Valentina Vergani (1), Ilaria Prencipe (1), Denise Corti (2), Paola Chiarugi (2), Marco Vanoni (1-3)
(1) Dept. Biotechnology and Bioscience, University of Milano-Bicocca, Piazza della Scienza 2, 20126 Milano, Italy; (2) Dept. Experimental and Clinical Biomedical Sciences, Biochemistry, Human Health Medical School, University of Florence, Viale Morgagni 50, 50134 Florence, Italy; (3) SYSBIO, Centre of Systems Biology, Milan, Italy

* equally contributing authors

P30 - A multistep model of HGF-induced rhabdomyosarcoma based on bypassing satellite cell quiescence recapitulates the heterogeneity of the human erms subtype

Deborah Morena (1-2), Nicola Maestro (1-2), Francesca Bersani (1-2), Paolo Emanuele Forni (1-2), Marcello Francesco Lingua (1-2), Valentina Foglizzo (1-2), Petar Šćepanović (1-2), Silvia Miretti (3), Alessandro Morotti (4), Jack F. Shern (5), Javed Khan (5), Ugo Ala (6), Paolo Provero (6), Valentina Sala (1), Tiziana Crepaldi (1), Patrizia Gasparini (7), Michela Casanova (7), Andrea Ferrari (7), Gabriella Sozzi (7), Roberto Chiarle (2-6-8), Carola Ponzetto (1-2)*, Riccardo Tauli (1-2)*
(1) Department of Oncology, University of Turin, 10043 Orbassano, Turin, Italy; (2) CeRMS, Center for Experimental Research and Medical Studies, 10126 Turin, Italy; (3) Department of Veterinary Science, University of Turin, 10095 Grugliasco, Italy; (4) Department of Clinical and Biological Sciences, University of Turin, 10043 Orbassano, Italy; (5) Pediatric Oncology Branch, Oncogenomics Section, Center for Cancer Research, National Institutes of Health (NIH), Bethesda, MD 20892, USA; (6) Department of Molecular Biotechnology and Health Sciences, University of Turin, 10126 Turin, Italy; (7) Fondazione IRCCS Istituto Nazionale dei Tumori, 20133 Milan, Italy; (8) Department of Pathology, Boston Children's Hospital and Harvard Medical School, Boston, MA 02115, USA

P31 - A proteomic approach confirms nanostructure-induced neuritogenesis and alterations of the mechanotransductive processes in PC12 cells, a model system for neuronal differentiation and neurosecretion

E. Maffioli (1), C. Schulte (2), S. Nonnis (3), A. Negri (3), L. Puricelli (2), F. Borghi (2), E. Sogne (1-2), C. Piazzoni (2), F. Santagata (3), A. Podestà (2), C. Lenardi (1-2), P. Milani (1-2), Gabriella Tedeschi (1-3)
(1) Fondazione Filarete, Milan, Italy; (2) University of Milan -C.I.Ma.I.Na, Italy; (3) University of Milan -DIPAV, Italy

P32 - New role of cyclin D1 in DNA damage repair.

Laura Verardi, Natalia Calonghi

Department of Pharmacy and Biotechnologies, FaBiT, Alma Mater Studiorum, University of Bologna, Italy

Invecchiamento e patologie degenerative

P33 - Serotonin and neurodegeneration: a preliminary study of platelet serotonin transporter (SERT) in patients with Huntington's disease

Lionella Palego (2), Laura Betti (1), Antonio Lucacchini (1), Elisa Unti (2), Roberto Ceravolo (2), Gino Giannaccini (1)
(1) Department of Pharmacy; (2) Department of Clinical and Experimental Medicine- University of Pisa. University of Pisa

P34 - Involvement of S1P signalling in FGF-induced biological effects in inner ear sensory cells

Francesca Cencetti, Ricardo Romero-Guevara, Ilaria Rizzo, Marina Bruno, Gennaro Bruno, Chiara Donati, Paola Bruni
Università degli studi di Firenze, Dipartimento di Scienze Biomediche Sperimentali e Cliniche "Mario Serio" Firenze, Italy

P35 - Is Toll like receptor 4 involved in the mechanism that regulates the expression and/or turnover of alpha-synuclein?

Carmela Conte (1), E. Albi (2), S. Cataldi (1), T. Beccari (1), M. Codini (1), G. Mariucci (1)
(1) Department of Pharmaceutical Sciences, University of Perugia, via del Giochetto, 06123 Perugia, Italy;
(2) Laboratory of Nuclear Lipid BioPathology, CRABIION, 06100 Perugia, Italy

P36 - New biotechnological glicosaminoglycans chondroitine and extractive chondroitine sulphate significantly effect on phenotype and lifespan of human primary chondrocytes

A. Stellavato (1), Francesca de Novellis (1), A.V.A. Pirozzi (1), F. Cinquegrani (1), A. Alfano (1), R. di Nuzzo (1), M. De Rosa (1), C. Schiraldi (1).
(1) Department of Experimental Medicine, Section of Biotechnology, Medical Histology and Molecular Biology, Second University of Naples, Naples, Italy, Europe

P37 - Donepezil derivatives as dual cholinesterase and BACE-1 inhibitors

Doriana Desiderio (1), Roberta Sgammato (2), Anna Lamberti (2), Paola Costanzo (3), Manuela Oliverio (3), Antonio Procopio (3), Gennaro Raimo (1), Rosaria Arcone (2), Mariorosario Masullo (2)
(1) Department of Biosciences and Territory, University of Molise, Pesche (IS), Italy; (2) Department of Movement Sciences and Wellness, University of Naples "Parthenope", Naples, Italy; (3) Department of Health Sciences, University of Catanzaro "Magna Graecia", Catanzaro, Italy

P38 - Coenzyme Q10 content and oxidative stress during ageing in human dermal fibroblasts cultured under different oxygen tension

Francesca Brugè (1), Fabio Marcheggiani (1), Elisabetta Damiani (2), Patrick Orlando (1), Sonia Silvestri (1), Gian Paolo Littarru (1), Luca Tiano (1)

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P39 - Dexamethasone effects on blood gene expression in Ataxia Telangiectasia

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P40 - Endogenous fatty acid synthesis is required to maintain peripheral nerve structure and function.

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P41 - Heparan Sulphate Proteoglycans In Inflammation: Changes In Both GAG Chain And Protein Core Expression in endothelial cells

Viola Manuela, D'Angelo Maria Luisa, Vigetti Davide, Karousou Evgenia, Moretto Paola, De Luca Giancarlo, Passi Alberto Department of Surgical and morphological Sciences University of Insubria, VARESE, Italy

P42 - Metabolomic analysis of red blood cells during storage in blood bank conditions

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P43 - Mutations in D-amino acid oxidase related to human pathologies

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P44 - Role of NAD⁺ metabolism in protection from protein misfolding induced aging in a yeast model.

Daniela Micozzi, Francesco M. Carpi, Cristiano Lucci, Silvia Vincenzetti, Valeria Polzonetti, Benedetta Moreschini, Patrizia Ballarini, Stefania Pucciarelli

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P45 - Identification of oxidative and nitrosative stress new markers in Parkinson's disease

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P46 - Dexamethasone effects on oxidative stress in Ataxia-Telangiectasia cells

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Membrane

P47 - Acetylation of human mitochondrial citrate carrier modulates mitochondrial citrate/malate exchange activity to sustain NADPH production during macrophage activation.

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P48 - Clostridium difficile Toxin B induces enteric glial cell death through ROS generation and activation of JNK

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P49 - Isolation of different types of extracellular vesicles by differential centrifugation

Serena Maggio (1), Michele Guescini (1), Giosué Annibalini (1), Paola Ceccaroli (1), Emanuela Polidori (1), Vilberto Stocchi (1).
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P50 - Design of nanoparticles for the treatment of brain tumors

Maria Gregori, Francesca Re, Lorena Passoni, Simona Rodighiero, Maura Francolini, Michela Matteoli, Massimo Masserini
Nanomedicine Center, Department of Health Sciences, University of Milano-Bicocca

P51 - Arabidopsis thaliana Mitochondrial ATP-Mg/Phosphate Carriers: Biochemical Characterization and Organ Expression

Maria Cristina Nicolardi, Magnus Monné, Daniela Valeria Miniero, Toshihiro Obata, Lucia Daddabbo, Luigi Palmieri, Angelo Vozza, Alisdair R. Fernie, Ferdinando Palmieri
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P52 - Involvement of AQP8 in H2O2-mediated signalling in leukaemia cells

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P53 - Effect of manganese on cell death and lipid composition in PC12 cells

Corsetto PA (1), Montorfano G (1), Roderi P (1), Ferrara G (2), Emiliani C (2), Urbanelli L (2), Chiaradia E (3), Angela Maria Rizzo (1)*, Buratta S (2)*
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P54 - Biochemical characterization of the mitochondrial SVCT2 in differentiating promonocytic cells

Maddalena Scotti, Mara Fiorani, Andrea Guidarelli, Liana Cerioni, Orazio Cantoni.
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P55 - The inhibitor protein (IF1) of the F1F0-ATPase enhances OXPHOS-dependent metabolism in human osteosarcoma cell

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P56 - The Human SLC25A33 and SLC25A36 are two Mitochondrial Pyrimidine Nucleotide Transporters

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P57 - Tumor Necrosis Factor-alpha potentiated pro-differentiating effects of A2B adenosine receptor towards osteoblasts by impairing receptor desensitization.

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Nutrizione e ambiente

P58 - Immunomodulating properties of selected bioactives from pigmented grains

Parisa Abbasi Parizad, Jessica Capraro, Mauro Marengo, Stefania Iametti, Alessio Scarafoni, Vera Lavelli, Ambrogina Pagani, Miriam Zanoletti, Francesco Bonomi
DeFENS, University of Milan, Italy

P59 - Synergic protective effect of estrogens and sulforaphane against oxidative stress in cardiomyocytes

Cristina Angeloni, Maria Cristina Barbalace, Marco Malaguti, Silvana Hrelia
University of Bologna, Department for Life Quality Studies, Rimini (Italy)

P60 - Nutrients with healing properties in OAT and OAT products

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P61 - Use of wearable devices to improve management of physical exercise as a therapy for diabetic patients: clinical and biochemical effects of a three months trial of metabolic fitness.

Patrick Orlando (1), Sonia Silvestri (1), Ilenia Cirilli (1), Tiziana Bacchetti (2), Alessia Giulietti (1), Francesca Raffaelli (1), Luca Tiano (1)

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P62 - Effect of oxidative stress on the expression of serotonin transporter, 5-HT2A and 5-HT1B receptors in horse leukocytes

Giuseppe Bruschetta (1), Zanghì G. (1), D'Ascola A. (2), Ferlazzo A.M. (1)

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P63 - Olive oil phenolic extract affects interleukin-8 expression by involvement of transcriptional and post-transcriptional mechanisms in Caco-2 cells.

Eri Muto, Mario Dell'Agli, Enrico Sangiovanni, Nico Mitro, Roberto Spezzano, Marco Fumagalli, Maurizio Crestani, Emma De Fabiani, Donatella Caruso

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P64 - In vitro screening of seaweeds potential as functional ingredients in foods or as dietary supplements

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P65 - Phytochemicals from the genus Beta and their cytotoxic activity on Caco-2 colon cancer cells.

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P66 - CESIUM-137 determination in edible boletus edulis from the mountains of the province of Lucca in Tuscany, Italy

Laura Betti (1)*, Lionella Palego (2), Antonio Lucacchini (1)*, Gino Giannaccini (1)*

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**Interdepartmental Research Center "Nutraceuticals and Food for Health" – Nutrafood, University of Pisa*

P67 - Biologic activity of wheat non specific lipid transfer protein TYPE 2 in Huvec cells under oxidative/inflammatory stress

Emanuela Leoncini (1), C. Prata (2), M. Malaguti (1), L. Massaccesi (1), C. Angeloni (1), V. Bregola (3), S. Bosi (3), G. Dinelli (3), S.Hrelia (1)

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P68 - Phaseolus vulgaris (L.) flour proteins as Microbial Transglutaminase substrate

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P69 - Effect of different metals on oxidative state and mitochondrial membrane potential in trout erythrocytes

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P70 - Plasma and mitochondrial membrane perturbation induced by aluminum in human peripheral blood lymphocytes.

Silvestri S (1), Patrick Orlando (1), Tiano L (1), Skarabaha AS (2), Lukyanenko LM (2), Slobozhanina EI (2), Amici A. (3), Falcioni G. (4)

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P71 - Bioactive peptides from leavened baked goods: characterization of biological activity

Lorenzo Mazzoli (1), Simone Luti (1), Paolo Paoli (1), Manuel Venturi (2), Viola Galli (2), Simona Guerrini (2), Massimo Vincenzini (2), Luigia Pazzagli (1)

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P72 - Toxic effects of herbicidal Pyriproxyfen on a model of nonalcoholic fatty liver disease in vitro

Anna Virginia Adriana Pirozzi (1), A. Stellavato (1), M. Lamberti (1), A. D'Agostino (1), M. De Rosa (1), C. Schiraldi (1)

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P73 - In vitro assessment of nutraceutical compounds and novel nutraceutical formulation on hepatocyte based model

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P74 - New plant sources of aspartic proteases with milk-clotting activity

Marilena Esposito, Raffaele Porta, Maria Fenderico, Loredana Mariniello, and Prospero Di Pierro

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P75 - Effect of cold plasma treatment on physico-chemical parameters and antioxidant activity of minimally processed kiwifruit

Ileana Ramazzina (1), Silvia Tappi (2), Pietro Rocculi (2-3), Martina Bonacini (1), Saverio Bettuzzi (1), Federica Rizzi (2).

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P76 - Natural extracts from the genus Beta and their cytotoxic activity on T24 human bladder cancer cells.

Emanuelli M. (1), Fratli A. (2), Di Ruscio G. (1), Emanuele Salvatore Scarpa (2), Pozzi V. (1), Giuliani R. (1), Sartini D. (1), Ninfali P. (2)

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P77 - Biotechnological production of recombinant thermophilic phosphotriesterases

Odile Francesca Restaino (1), Ilaria Scognamiglio (1), Luigi Fedele (1), Cinzia Donatiello (1), Luigi Mandrich (2), Giuseppe Manco (2), Chiara Schiraldi (1)

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P78 - Recovery and valorisation of polyphenolic content from oil mill wastewaters for nutraceutical and cosmeceutical applications

A. Alfano (1), L. Corsuto (1), R. Finamore (1), G. Schiavone (1), G. Santabarbara (1), A. Stellavato (1), A.V.A. Pirozzi (1), M. Savarese (2), A. D'Agostino (1), Chiara Schiraldi (1)

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P79 - Epigenetic control of sirtuin expression in nutrient-deprived cultured cells

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P80 - The resveratrol effects on human bone marrow mesenchymal stromal cells differentiation

Ilaria Caldarelli, Maria Carmela Speranza, Debora Bencivenga, Annunziata Tramontano, Aide Negri, Emanuela Stampone, Adriana Oliva, Fulvio Della Ragione and Adriana Borriello
Department of Biochemistry, Biophysics and General Pathology, Second University of Naples

P81 - Novel assay identifies Nicotinamide Riboside, the form of vitamin B3 that boosts metabolism, as a constituent of milk at levels comparable to Niacin.

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Departments of (1) Agricultural, Food and Environmental Sciences; (2) Clinical Sciences, Polytechnic University of Marche, Ancona

Proteine

P82 - Exploiting the arsenic resistance of the thermophilic bacterium *Thermus thermophilus*

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P83 - Dexamethasone-loaded biopolymeric nanoparticles and fibroblasts differentiation

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P84 - Thermophilic microorganisms as source of enzymes for biofuel production

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P85 - Resident CALPAIN-1 regulates calcium entrance at synaptic and extrasynaptic NMDAR

Monica Aversa, Matteo Pellegrini, Marco Pedrazzi, Margherita Bavestrello, Roberta De Tullio, Edon Melloni
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P86 - Different polyols selectively stabilize specific structural regions in Beta-lactoglobulin

Alberto Barbiroli, Dimitrios Fessas, Enzo Ragg, Stefania Iametti, Stefano Renzetti*, Francesco Bonomi
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P87 - Flagellar subunits as targets for structure-based epitope discovery approaches and melioidosis vaccine development

Gourlay L.J. (1), Lassaux P. (1), Thomas R.J. (2), Peri C. (3), Conchillo-Solé O. (4), Nithichanon A. (5), Ferrer-Navarro M. (4), Vila J. (7), Daura X. (4), Lertmemongkolchai G. (5), Titball R. (2), Colombo G. (3), Martino Bolognesi (1)
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P88 - Modulation of the NF- κ B pathway by I-152, a pro-drug of N-acetyl-cysteine and beta-mercaptoethylamine

Alfonsina Mariarosaria Cangiano, Serena Brundu, Rita Crinelli, Alessandra Fraternali, Mauro Magnani
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P89 - Subcellular distribution of type 2 transglutaminase is constitutively different in skin derived-fibroblasts from celiac disease patients and from healthy controls

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P90 - Anti-inflammatory and large spectrum antibacterial activity of the M33 peptide in D configuration.

Veronica Carnicelli (1), Alessia Ponzi (1), Antonio Di Giulio (1), Anna Rita Lizzi (1), Chiara Falciani (3), Luisa Bracci (2), Giulia Roscia (2), Alessandro Pini (2)

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P91 - Salivary biomarkers for differential diagnosis of fibromyalgia

Federica Ciregia, Laura Giusti, Camillo Giacomelli, Isabella Piga, Claudia Boldrini, Arianna Consensi, Laura Bazzichi, Antonio Lucacchini

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P92 - Nitrosylation in amyloid-activated microglia: challenging arginine pathways in neurotoxicity

Correani Virginia (1), Di Francesco Laura (1), Mignogna Giuseppina (1), Giorgi Alessandra (1), Fumagalli Lorenzo (2), Fabrizi Cinzia (2), Maras Bruno (1), Schininà M. Eugenia (1)

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P93 - HUMAN scFv 2G8: A NEW ANTIBODY AGAINST β 1,3-glucan OF PATHOGENIC FUNGI

Tomas Di Mambro (1-2), Marzia Bianchi (1), Giordano Serafini (1), Fabio Baroni (3), Alberto Spisni (3), Mauro Magnani (1-2)

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P94 - Purification and kinetic characterization of myoglobin from *Sciurus vulgaris* L.

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P95 - A novel source of microbial agents: characterization of an antimicrobial peptide from PD-L4, a type 1 ribosome inactivating protein from *Phytolacca dioica* L.

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P96 - Different properties of RNase A dimers depend on the way the oligomers form

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P97 - "Productive" readthrough over nonsense mutations depends on the interplay between translation termination efficiency and impact of aminoacid substitutions on protein biology

Mattia Ferrarese, Alessio Branchini, Marcello Baroni, Francesco Bernardi, Mirko Pinotti

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P98 - Molecular properties of LANCL2, a non-transmembrane G protein coupled receptor of the hormone Abscisic Acid in mammals

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P99 - A new cellulase from the hyperthermophilic bacterium *Dyctioglomus turgidum*

Francesca Anna Fusco, Carmen Sarcinelli, Simonetta Bartolucci, Danila Limauro

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P100 - Erythrocytes loaded with Phenylalanine Ammonia Lyase as a new Enzyme Replacement Therapy for Phenylketonuria in BTBR-PAHenu2 mice

Claudia Gabucci (1), Francesca Pierigè (1), Noemi Bigini (1), Claudia Carducci (2), Vincenzo Leuzzi (3), Mauro Magnani (1-4), Luigia Rossi (1-4)

Department of Biomolecular Sciences, University of Urbino "Carlo Bo", via Saffi 2, 61029 Urbino (PU), Italy

P101 - Upregulation of placental endothelial Nitric Oxide Synthase (eNOS) in obese pregnant women: a case-control study.

Alessia Giulietti, Jacopo Sabbatinelli, Arianna Vignini, Giulia Di Ruscio, Davide Sartini, Laura Mazzanti, Monica Emanuelli
Dipartimento di Scienze Cliniche Specialistiche ed Odontostomatologiche, Università Politecnica delle Marche, Ancona, Italy

P102 - Onconase Dimerizes through 3D Domain Swapping and Increases its Cytotoxicity

Giovanni Gotte, Andrea Fagagnini, Marco Cordani, Massimo Donadelli, Andrea Pica, Delia Picone

Università degli Studi di Verona, Dipartimento di Scienze della Vita e della Riproduzione, Sezione di Chimica Biologica, Strada le Grazie, 8, I-37134, Verona, Italy; Università degli Studi di Napoli "Federico II", Dipartimento di Scienze Chimiche, via Cintia, I-80126, Napoli, Italy

P103 - A single amino acid mutation of cerato-platanin sequence affects its biological activity

Simone Luti, Mazzoli L., Martellini F., Pazzagli L.

Department of Biomedical, Experimental and Clinical Sciences, University of Florence, Florence, Italy.

P104 - Structural and functional properties of bovine α 1-Acid glycoprotein

Beatrice Maggiore (1), Maurizio Baldassarre (2), Andrea Scirè (1), Fabio Tanfani (1)

(1) Department of Life and Environmental sciences, Università Politecnica delle Marche, Ancona (Italy); (2) Department of Biochemistry and Biophysics, Stockholm University, Stockholm (Sweden)

P105 - Ornithine aminotransferase in the human toxoplasmosis parasite Toxoplasma gondii: a druggable target?

Elena Maresi, Carolina Conter, Alessandra Astegno, and Paola Dominici

Department of Biotechnology, University of Verona, Verona, Italy

P106 - Interaction between flavonoids and PDIA3

Ilaria Marrocco, Caterina Grillo, Rossana Cocchiola, Donatella Romaniello, Silvia Chichiarelli, Margherita Eufemi, Fabio Altieri

Department of Biochemical Sciences "Rossi-Fanelli", Sapienza University, Rome, Italy

P107 - The interplay among NF-Y and E-box transcription factors

Mariangela Lorenzo (1), Matteo Pigni (1), Valentina Nardone (1), Petr V. Konarev (2), Erica Valentini (3), Dmitri I. Svergun (3), Giulio Pavesi (1), Martino Bolognesi (1), Roberto Mantovani (1), Nerina Gnesutta (1), Marco Nardini (1)

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P108 - Pyridoxamine and pyridoxal are more effective than pyridoxine in rescuing two folding-defective variants of human alanine:glyoxylate aminotransferase causing primary hyperoxaluria type I

Elisa Oppici (1), Sonia Fargue (2), Emma S. Reid (3), Philippa B. Mills (3), Peter T. Clayton (3), Christopher J. Danpure (4), Barbara Cellini (1)

(1) Department of Life and Reproduction Sciences, University of Verona, Verona, Italy; (2) Department of Urology, University of Alabama, Birmingham, Alabama, USA; (3) Genetics and Genomic Medicine, UCL Institute of Child Health, London, UK; (4) Department of Cell & Developmental Biology, Division of Biosciences, University College London, London UK

P109 - HMGB1 and bone: induction of osteogenic phenotype in a SaOS-2 cellular model

Simona Martinotti (1), Marcello Manfredi (2), Marco Pedrazzi (3), Emilio Marengo (1), Elia Ranzato (1), Mauro Patrone (1)

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Section, and Center of Excellence for Biomedical Research (CEBR), University of Genova, Viale Benedetto XV, 1-16132 Genova, Italy.

P110 - Defence responses induced by a fungal MAMP: an -omics approach

Luti S. (1), Caselli A. (1), Mazzoli L.(1), Taiti C. (2), Bazihizina N. (2), Mancuso S. (2), Luigia Pazzagli (1)
(1) Department of Biomedical Experimental and Clinical Sciences, Università di Firenze, viale Morgagni 50, 50134, Firenze, Italy; (2) Department of Agri-Food and Environmental Science, Università di Firenze, via delle Idee 30, 50019, Sesto Fiorentino, Italy

P111 - Identification and characterization of novel cryptic cationic antimicrobial peptides from human ApoB

Gaglione R. (1), Itri F. (1), Pane K. (2), Cafaro V. (2), Renata Piccoli (1), Notomista E. (2), Arciello A. (1)
(1) Dipartimento di Scienze Chimiche, Università degli Studi di Napoli "Federico II", Napoli, Italy; (2) Dipartimento di Biologia, Università degli Studi di Napoli "Federico II", Napoli, Italy

P112 - Pichia pastoris production of Prolyl-4 Hydroxylase derived from the marine sponge C. reniformis: a new biotechnological tool for recombinant production of marine collagen

Marina Pozzolini (1), Sonia Scarfi (1), Francesca Mussino (2), Annalisa Salis (1-3), Gianluca Damonte (2-3), Umberto Benatti (2-3), Marco Giovine (1-3)
(1) Department of Earth, Environment and Life Sciences, University of Genova, Via Pastore 3, 16132, Genova, Italy;
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(3) Centre of Excellence for Biomedical Research, University of Genova, Viale Benedetto XV, 5, 16132, Genova, Italy

P113 - Plasma membrane redox system in the erythrocytes of rowers: pilot study

Patrizia Proia, Danila Di Majo, Valentina Contrò, Antonino Bianco, Elena Joana Armeli, Claudia Cannizzaro, Marco Giammanco, Maurizio La Guardia,
Università degli studi, Palermo

P114 - Functional studies of STAT3 and its interactors in Breast Cancer

Donatella Romaniello, Rossana Cocchiola, Caterina Grillo, Annunziata Di Domenico, Ilaria Marrocco, Fabio Altieri, Irene Pecorella, Maria Luisa Framarino Rosina Lanza, Margherita Eufemi
Department of Biochemical Sciences A. Rossi Fanelli, Rome Italy

P115 - Expression and intracellular localization of H1^o mRNA-containing complexes in developing rat brain and astrocytes

Carlo Maria Di Liegro (1), Alessandra Di Gregorio (1-2), Gabriella Schiera (1), Italia Di Liegro (2)
(1) Dipartimento di Scienze e Tecnologie Biologiche Chimiche e Farmaceutiche, University of Palermo, Palermo, Italy; (2) Dipartimento di Biomedicina sperimentale e Neuroscienze cliniche, University of Palermo, Palermo, Italy.

P116 - Effect of the antimetabolite 6-aminonicotinamide on Leishmania infantum promastigotes

Shawgi Almugadam, Tiziana Bellini, Carlo Contini (1), Martina Maritati (1), Alessandro Trentini, Gianluca Rugna (2), Franco Dallochio, Stefania Hanau
Dept. of Biomedical and Specialty Surgical Sciences, Biochemistry Unit, Ferrara University; (1) Department of Medical Sciences, Section of Infectious Diseases, Ferrara University; (2) Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna, Brescia, Sezione di Modena

P117 - Cell origin and functions of different forms of HMGB1 released upon Natural Killer/melanoma cell interaction

Marco Pedrazzi, Monica Parodi, Claudia Cantoni, Monica Averna, Mauro Patrone, Maria Cavaletto, Stefano Spertino, Daniela Pende, Mirna Balsamo, Gabriella Pietra, Simona Sivoria, Simona Carlomagno, Maria Cristina Mingari, Lorenzo Moretta, Massimo Vitale, Bianca Sparatore
Department of Experimental Medicine (DIMES), University of Genova, 16132 Genova, Italy. Center of Excellence for Biomedical Research (CEBR), University of Genova, 16132 Genova, Italy. Istituto Giannina Gaslini, 16132 Genova, Italy. Department of Sciences and Technological Innovation (DiSIT) University of Piemonte Orientale, 15121 Alessandria, Italy, IRCCS AOU San Martino-IST Genova, 16132 Genoa, Italy.

P118 - Conserved cysteines mutagenesis in Major Urinary Protein: a new insight in folding stability and reversibility

Elena Ferrari (1), Romina Corsini (2), Giulia Rizzatello (1), Alberto Spisni (3)
(1) Dipartimento di Scienze Biomediche, Biotecnologiche e Traslazionali, sez. di Biochimica, Università degli Studi di Parma; (2) Dipartimento di Medicina Interna e specialità mediche, Unità Operativa Malattie Infettive, Arcispedale Santa Maria Nuova-IRCCS, Reggio Emilia; (3) Dipartimento di Scienze Chirurgiche, Università degli Studi di Parma

P119 - Proteomic analysis of plasma peptidome in healthy and hemorrhagic-shock rats

E. Maffioli (1), F. Santagata (2), F. Aletti (3), S. Nonnis (2), G.W. Schmid-Schönbein (4), A. Negri (2), Gabriella Tedeschi (1-2)

(1) *Fondazione Filarete, Milano, Italy*; (2) *University of Milan –DIVET, Milano, Italy*; (3) *Polytechnic University of Milan, Milano, Italy*; (4) *University of California, San Diego, USA*

P120 - Lactoferrin administration prior to genetic amniocentesis dampens the intra-amniotic inflammatory response

Alessandro Trentini (1), Manfrinato MC (1), Pezzuto M (1), Rosta V (1), Lombardi F (1), Maritati M (2), Vesce F (2), Hanau S (1), Almagadam S (1), Dalocchio F (1), Contini C (2), Bellini T (1)

1 *Section of Medical Biochemistry, Molecular Biology and Genetics, Department of Biomedical and Specialist Surgical Sciences, University of Ferrara*

2 *Section of Dermatology and Infectious Diseases, Department of Medical Sciences, University of Ferrara.*

P121 - Biomarkers Mapping in a Neuropathic Pain Mice Model with Sciatic Nerve Chronic Constriction Injury (CCI)

Yaqi Huang, Stefania Pucciarelli, Valeria Polzonetti, Daniela Micozzi, Catia Lambertucci (1), Ajiroghene Thomas (1), Giulia Scuppa (1), Laura Soverchia (1), Massimo Ubaldi (1), Silvia Vincenzetti

Scuola di Bioscienze e Medicina Veterinaria; (1) *Scuola di Scienze del Farmaco e dei Prodotti della Salute, Università di Camerino, Camerino (MC).*

Altro

P122 - Validation of a HPLC method for the simultaneous analysis of cysteine and reduced glutathione in mouse organs

Serena Brundu (1), Lucia Nencioni (2), Ignacio Celestino (2), Paolo Coluccio (2), Anna Teresa Palamara (2-3), Mauro Magnani (1), Alessandra Fraternali(1)

(1) *Department of Biomolecular Sciences, University of Urbino “Carlo Bo”, Urbino (PU), Italy*; (2) *Department of Public Health and Infectious Diseases, Pasteur Institute, Cenci-Bolognetti Foundation, “Sapienza” University of Rome, Rome, Italy*; (3) *San Raffaele Pisana Scientific Institute for Research, Hospitalization, and Health Care, Rome, Italy*

P123 - New insights into the trophic and cytoprotective effects of creatine in in vitro and in vivo models of cell maturation.

P. Sestili, E. Barbieri, Cinzia Calcabrini, E. Polidori, L. Vallorani, M. Guescini, F. Luchetti, B. Canonico, A.R. Diaz and V. Stocchi

Department of Biomolecular Sciences, University of Urbino Carlo Bo, Via Saffi, 2, 61029 Urbino (PU), ITALY.

P124 - A validated cellular Biobank for β -thalassemia (PER LARA: sto aspettando che mi invii il simbolo mancante)

Lucia Carmela Cosenza (1), Laura Breda (2), Giulia Breveglieri (3), Cristina Zuccato (1), Alessia Finotti (1), Ilaria Lampronti (1), Francesco Chiavilli (4), Maria Rita Gamberini (5), Stefania Satta (6), Luca Moi (6), Stefano Rivella (2), Roberto Gambari (1-3), Nicoletta Bianchi (1)

(1) *Department of Life Sciences and Biotechnology, Ferrara University, Italy*; (2) *Weill Cornell Medical College, Department of Pediatrics, New York, NY, USA*; (3) *Biotechnology Centre, Ferrara University, Ferrara, Italy*; (4) *DHT, Hospital S. Maria della Misericordia, AULSS 18, Rovigo, Italy*; (5) *Day Hospital della Talassemia e delle Emoglobinopatie, Ferrara Hospital, Ferrara, Italy*; (6) *Department of Biomedical Science, Regional Hospital for Microcythemia, Cagliari, Italy*

P125 - Zc3h10 is a novel RNA binding protein that integrates mitochondrial biogenesis and cell differentiation in myocyte precursors

Emma De Fabiani (1), Matteo Audano (1), Gaia Cermenati (1), Maurizio Crestani (1), Donatella Caruso (1), Serena Ghisletti (2), Enrique Saez (3), Nico Mitro (1)

(1) *Dipartimento di Scienze Farmacologiche e Biomolecolari, Università degli Studi di Milano, 20133 Milan*;

(2) *Department of Experimental Oncology, European Institute of Oncology (IEO), 20139 Milan*; (3) *Department of Chemical Physiology, The Scripps Research Institute, La Jolla, CA 92037, USA*

P126 - Expression of host stress markers following Leishmania infantum infection in a cell culture model

Aurora Diotallevi, Luca Galluzzi, Mauro De Santi, Marcello Ceccarelli, Mauro Magnani

Department of Biomolecular Sciences, University of Urbino Carlo Bo, 61029 Urbino (PU), Italy

P127 - Interpretation of non-coding variants in inherited cardiomyopathies associated to sudden death

Nicola Detta (1), Cristina Liguori (1-2), Pamela Coppola (1-2), Maria Rosaria Pricolo (2), Francesco Salvatore (1-3), Giulia Frisso (1-2)

(1) *CEINGE-Biotecnologie Avanzate s.c.ar.l., Naples, Italy*; (2) *Dipartimento di Medicina Molecolare e Biotecnologie Mediche, Università di Napoli Federico II, Naples, Italy*; (3) *IRCCS-Fondazione SDN, Naples, Italy.*

P128 - Cytokine profiles in ulcer wound fluid: a useful tool to discriminate venous leg ulcers

Ligi Daniela (1), Croce Lidia (1), Santi Martina (1), Joseph D. Raffetto (2), Giovanni Mosti (3), Ferdinando Mannello (1)
(1) Department of Biomolecular Sciences, Section of Clinical Biochemistry and Cell Biology, University "Carlo Bo", Urbino, Italy; (2) Vascular Surgery Division, VA Boston Healthcare System, West Roxbury, MA, USA Division of Vascular and Endovascular Surgery, Brigham and Women's Hospital, Boston, MA, USA Harvard Medical School, Boston, MA, USA; (3) Angiology Department, Barbantini Clinics, Lucca, Italy

P129 - BCL11A gene expression is regulated by miRNAs

Giulia Montagner (1), Jessica Gasparello (1), Enrica Fabbri (1), Nicoletta Bianchi (1-2), Giulia Breveglieri (1-2), Cristina Zuccato (1-2), , Lucia Carmela Cosenza (1-2) , Ilaria Lampronti (1), Francesca Salvatori (1-2), Monica Borgatti (1-2), Roberto Gambari (1-2) and Alessia Finotti (1-2)

(1) Department of Life Sciences and Biotechnology, Ferrara University, Ferrara; (2) Biotechnology Center, Ferrara University, Ferrara, Italy

P130 - Acute and sub-acute in-vivo treatment with ultrafine particles form an anthropogenic source

Chiara Milani, Laura Botto, Elena Lonati, Alessandra Bulbarelli, Paola Palestini, Francesca Farina
Department of Health Science, Polaris Centre, University of Milano-Bicocca, Monza, Italy.

P131 - Chitosan and modified Cyclodextrin nanoparticles for delivery of antioxidants in human keratinocytes

Giusi Giada Picceri (1), Nicolino Mastroianni (1), Adriana Trapani (2), Lucia Montenegro (3), Laura Chiarantini (1).

(1) Dipartimento di Scienze Biomolecolari, Università di Urbino Carlo Bo; (2) Dipartimento di Farmacia-Scienze del Farmaco, Università di Bari; (3) Dipartimento di Scienze del Farmaco, Università di Catania.

P132 - Development of novel SMO antagonist as anti-neoplastic agents for the treatment of human Osteosarcoma

Giulia Bernardini, Michela Geminiani, Elena Petricci, Fabrizio Manetti, Marcella Laschi, Maurizio Orlandini, Maurizio Taddei, Annalisa Santucci

Dipartimento di Biotechnologie, Chimica e Farmacia, Università degli Studi di Siena, Siena, Italy

P133 - Astrocytes and microglia: different paths in the oxidative metabolism of dopamine?

Angela De Iulius (1), Laura Facci (2), Stephen D. Skaper(2), Giorgio Arrigoni (3), Mario Plebani(1), and Piero Giusti(2)

(1) Department of Medicine (DiMED), (2) Department of Pharmaceutical and Pharmacological Sciences, (3) Department of Biomedical Sciences, University of Padua, Padua, Italy.

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