



93° CONGRESSO NAZIONALE

22-25 Aprile 2021

On-line su: <https://www.congressosibs1925palermo.it/>



Programma

(Versione del 20 aprile 2021)

CON IL CONTRIBUTO DI:



CON IL PATROCINIO DI:



CENTRO INTERDIPARTIMENTALE DI RICERCA
PER LA VALORIZZAZIONE
DEL CORPO DONATO ALLA SCIENZA
CIR-COSCIENZA



SIPaV
Società Italiana di Patologia Vegetale
Italian Phytopathological Society



PRESIDENTI ONORARI DEL CONGRESSO

Massimo Cocchi – Alberto JL Macario – Giovanni Zummo

PRESIDENTE DEL CONGRESSO

Francesco Cappello

OSPITI D'ONORE

Giuseppe Bertoni (Presidente Associazione Ricercatori Nutrizione Alimenti), **Pietro Brandmayr** (Presidente Unione Zoologica Italiana), **Benedetta Bussolati** (Presidente Società Italiana per le Vescicole Extracellulari), **Paolo Calabresi** (Presidente Società Italiana di Neuroscienze), **Marcello Ciaccio** (Presidente Scuola di Medicina UNIPA), **Everly Conway de Macario** (Advisory Board Member, Istituto Euro-Mediterraneo di Scienza e Tecnologia), **Giuseppe Ferraro** (Direttore Dipartimento di Biomedicina, Neuroscienze e Diagnostica avanzata, Università degli Studi di Palermo), **Aldo Gerbino** (Presidente Accademia delle Scienze Mediche, Palermo), **Lawrence Hightower** (Professor Emeritus, University of Connecticut, CT, USA), **Matteo Lorito** (Presidente Società Italiana Patologia Vegetale), **Massimo Midiri** (Direttore Dipartimento Assistenziale di Neuroscienze, Policlinico, Palermo), **Leonard Neckers** (President, Cell Stress Society International), **Helen Neumann** (Managing Editor, Cell Stress & Chaperones), **Gian Carlo Panzica** (Gruppo Italiano per lo Studio della Neuromorfologia), **Antonio Paoli** (Presidente Società Italiana delle Scienze Motorie e Sportive), **Massimo Reverberi** (Vice-Presidente Società Italiana Patologia Vegetale), **Bartolomeo Sammartino** (Presidente Istituto Euro-Mediterraneo di Scienza e Tecnologia), **Giulio Tagliatela** (Director, Mitchell Center for Neurodegenerative Diseases, University of Texas Medical Branch, Galveston, TX, USA), **Giuseppe Venturella** (Presidente Società Italiana Funghi Medicinali), **Alessandro Vercelli** (Presidente Eletto Società Italiana di Neuroscienze)

COMITATO SCIENTIFICO LOCALE

Rosario Barone, Valentina Di Felice, Filippo Macaluso,
Antonella Marino Gammazza, Alessandro Pitruzzella, Francesca Rappa

COMITATO TECNICO-ORGANIZZATORE LOCALE

Giusi Alberti, Charbel Basset, Stefano Burgio, Celeste Caruso Bavisotto, Paola Dino, Ennio Favara, Malak Fouani, Alberto Fucarino, Ennio Giordano, Giorgia Intili, Agnese La Mensa, Donato Mangano, Olga Manna, Davide Ortolina, Letizia Paladino, Ignazio S. Raspante La Scala, Dario Saguto, Radha Santonocito, Davide Sardina, Silvia Sarullo, Federica Scalia, Giuseppe Vergilio, Alessandra Maria Vitale

CONSIGLIO DIRETTIVO SIBS-1925

Francesco Cappello – *Presidente*; Caterina Faggio – *Vicepresidente*; Antonella Pantaleo – *Vicepresidente*; Emma Rabino Massa – *Segretario generale*; Concetta Maria Messina – *Tesoriere*

REVISORI DEI CONTI SIBS-1925

Nicolò Benfante, Maria Grazia Bridelli, Gian Luigi Mariottini

JOURNAL OF BIOLOGICAL RESEARCH – EDITORS IN CHIEF

Marco Giammanco, Gian Luigi Mariottini

Program at a glance

		22 APRILE	23 APRILE	24 APRILE	25 APRILE
MATTINO	9-10	CERIMONIA DI INAUGURAZIONE	<i>(Assemblea dei soci – 1^a convocazione)</i>	Sessione NUTRIZIONE E METABOLISMO	VIDEOPOSTER*
	10-11	Sessione BIOANTROPOLOGIA	Sessione NEUROSCIENZE		
	11-12			Sessione SCIENZA E MEDICINA DELLO SPORT E DELL'ESERCIZIO FISICO	
	12-13	Sessione COVID-19			
	13-14	VIDEOPOSTER*			
POMERIGGIO	14-16	Sessione MICRO- E NANOVESICOLE IN BIOMEDICINA	Simposio Satellite <i>BIOLOGIA SPERIMENTALE APPLICATA AL MARE E ALL'AMBIENTE</i>	Sessione STRESS CELLULARE	
	16-17	Sessione NATURA E SALUTE NELL'AREA EURO-MEDITERRANEA	LETTURA "QUAGLIARELLO" COVID VACCINES Guido Silvestri, Atlanta		
	17-18		ASSEMBLEA DEI SOCI 2 ^a convocazione	INVITED LECTURE Antonio D'Amore, Philadelphia & Palermo	Simposio Satellite <i>HOW CAN CONSCIOUSNESS BE MEASURED AND QUANTIFIED?</i> A cura del QPP Group
			CONCLUSIONI		

Per seguire i lavori, collegarsi a:

<https://www.congressosibs1925palermo.it/area-riservata>

e inserire il codice ricevuto via e-mail.

In caso di problemi tecnici, scrivere a: helpdesk@congressosibs1925palermo.it indicando il proprio nome e il recapito telefonico.

(*) I VIDEOPOSTER SARANNO VISIBILI PER TUTTA LA DURATA DEL CONGRESSO, ATTRAVERSO L'AREA RISERVATA DEL SITO.

I PREMI PER LE MIGLIORI COMUNICAZIONI ORALI E I MIGLIORI VIDEOPOSTER SARANNO COMUNICATI NEI GIORNI SUCCESSIVI AL CONGRESSO ATTRAVERSO LA PUBBLICAZIONE SUL SITO WEB

<https://www.congressosibs1925palermo.it>

LETTURA “GAETANO QUAGLIARIELLO”

23 APRILE, ORE 16:00

Prof. Guido Silvestri

Professor & Chair del Department of Pathology and Laboratory Medicine

Emory University School of Medicine, Atlanta (GA), USA



Per gli acclarati meriti accademici
e la straordinaria capacità di divulgatore scientifico
straordinariamente esaltati dalla pandemia da SARS-CoV-2.

Sessioni e moderatori

- **BIOANTROPOLOGIA (organizzato col patrocinio dell'Accademia delle Scienze Mediche di Palermo)**
 - Maria Grazia Bridelli
 - Emma Rabino Massa

- **COVID-19 (organizzato col patrocinio del Centro Interdipartimentale di Ricerca per la Valorizzazione del Corpo donato alla Scienza – CIR-COSCIENZA)**
 - Francesco Cappello
 - Francesca Rappa

- **MICRO- E NANOVESICOLE IN BIOMEDICINA (organizzato col patrocinio del Società Italiana per le Vescicole Extracellulari)**
 - Alice Conigliaro
 - Valentina Di Felice

- **NATURA E SALUTE NELL'AREA EURO-MEDITERRANEA (organizzato col patrocinio dell'Unione Zoologica Italiana e della Società Italiana di Patologia Vegetale)**
 - Paolo Bonivento
 - Antonella Pantaleo

- **NEUROSCIENZE (organizzato col patrocinio della Società Italiana di Neuroscienze e del Gruppo Italiano per lo Studio della Neuromorfologia)**
 - Corrado Cali
 - Giuseppe Giglia

- **NUTRIZIONE E METABOLISMO (organizzato col patrocinio dell'Associazione Ricerca Nutrizione Alimenti e della Società Italiana Funghi Medicinali)**
 - Marco Giammanco
 - Bruna Lo Sasso

- **SCIENZA E MEDICINA DELLO SPORT E DELL'ESERCIZIO FISICO (organizzato col patrocinio della Società Italiana delle Scienze Motorie e Sportive)**
 - Rosario Barone
 - Marianna Bellafiore

- **STRESS CELLULARE (organizzato col patrocinio della Cell Stress Society International)**
 - Giuditta Gambino
 - Antonella Marino Gammazza

- **COMUNICAZIONI LIBERE**
 - Celeste Caruso Bavisotto
 - Alberto Fucarino
 - Alessandro Pitruzzella
 - Federica Scalia

Programma delle Comunicazioni orali delle Sessioni

22 aprile

BIOANTROPOLOGIA, ore 10.00 – 11.30

FROM THE ARCHAEOLOGICAL CONTEXTS TO THE ANTHROPOLOGICAL ANALYSIS AND BEYOND. OSTEOBIOGRAPHY OF AN EARLY MEDIEVAL INHUMATION.

Rosa BOANO¹, Alessandra CINTI¹, Gianluigi MANGIAPANE², Ezio FULCHERI³

¹ *Dipartimento di Scienze della Vita e Biologia dei Sistemi - Università degli Studi di Torino.* ²

Dipartimento di Filosofia e Scienze dell'Educazione - Università degli Studi di Torino. ³

Dipartimento di Scienze Chirurgiche e diagnostiche integrate DISC Università degli Studi di Genova

ETHICS AND HUMAN REMAINS.

Rosagemma CILIBERTI¹, Marta LICATA², Emma RABINO³

¹ *Department of Health Sciences (DISSAL) - Section of History of Medicine and Bioethics, University of Genova;* ² *Department of Life Sciences and Systems Biology, University of Turin, Torino, Italy;* ³

Department of Biotechnology and Life Sciences, University of Insubria.

ST. MERCURIALIS, THE FIRST BISHOP OF FORLÌ: SCIENTIFIC RECOGNITION AND PALAEOPATHOLOGICAL ANALYSIS.

Elisabetta CILLI¹, Donata LUISELLI¹, Giorgio GRUPPIONI¹, Maria Grazia BRIDELLI², Luca SARAGONI³, Enrico PETRELLA⁴, **Mirko TRAVERSARI**¹

¹ *Department of Cultural Heritage, University of Bologna, Ravenna, Italy.* ² *Department of*

Mathematical, Physical and Computer Sciences, University of Parma, Parma, Italy. ³ *Department of*

Pathological Anatomy, AUSL Romagna, Morgagni-Pierantoni city hospital, Forlì, Italy. ⁴ *Department*

of Radiology and Nuclear Medicine, USL Romagna, Morgagni-Pierantoni city Hospital, Forlì, Italy.

STATURAL DIFFERENCES IN MALARIAL AND HEALTHY AREAS IN THE 19TH CENTURY IN ITALY.

Alessia ORRÙ¹, Rosa BOANO¹, Carla Maria CALÒ², Emanuele SANNA², Sergio DE IASIO³

¹ *Dipartimento di Scienze della Vita e Biologia dei Sistemi, Università degli Studi di Torino;*

² *Dipartimento di Scienze della Vita e dell'Ambiente, Università degli Studi di Cagliari;* ³ *Dipartimento*

di Scienze Chimiche, della Vita e della Sostenibilità Ambientale, Università degli Studi di Parma.

PAIR-MATCHING ILIAC BONES: PRELIMINARY RESULTS FROM STEREOFOTOGRAMMETRIC ANALYSIS FOR SORTING COMMINGLED REMAINS.

Andrea PALAMENGI^{1,2}, Danilo DE ANGELIS¹, Chiarella SFORZA², Cristina CATTANEO¹, Daniele GIBELLI²

¹ *LABANOF, Laboratorio di Antropologia e Odontologia Forense, Sezione di Medicina Legale, Dipartimento di Scienze Biomediche per la Salute, Università degli Studi di Milano, Via L. Mangiagalli 37, 20133, Milan, Italy.* ² *LAFAS, Laboratorio di Anatomia Funzionale dell'Apparato*

Stomatognatico, Dipartimento di Scienze Biomediche per la Salute, Università degli Studi di Milano, Via L. Mangiagalli 31, 20133 Milan, Italy

EXPERIMENTAL STUDY ON ANTHROPOGENIC MUMMIFICATION WITH LIME.

Luca VENTURA^{1,2}, Mirko TRAVERSARI³, Marco LEONARDI⁴, Sonia CIOCCA¹, Monia DI MARCO¹, Alessandra FOSCATI⁵

¹UOC Anatomia Patologica, Ospedale San Salvatore, L'Aquila; ²DISCAB, University of L'Aquila; ³Department of Cultural Heritage, University of Bologna, Ravenna; ⁴Department MESVA, University of L'Aquila; ⁵Centre of Classical Studies, "Projecto Gynaecia", University of Lisbon, Portugal.

COVID-19, ore 11:30 – 13:00

EFFECT OF SARS-COV-2 ACCESSORY PROTEINS ON IMMUNE RESPONSE IN A549-ACE2 LUNG CELLS.

Gioia CAPPELLETTI¹, Sonia MUSOLLINO¹, Micaela GARZIANO¹, Irma SAULLE¹, Serena PAGLIARA¹, Claudia VANETTI¹, Claudio FENIZIA¹, Daria TRABATTONI¹, Mara BIASINI¹

¹ DIBIC, University of Milan

PLACENTAL PATHOLOGY AND SARS-CoV-2 INFECTION: THE EXPERIENCE AND THE MANAGEMENT OF A REGIONAL REFERRAL CENTER.

Riccardo CARBONE^{1,2}, Francesca BUFFELLI¹, Manuela MOSCONI^{1,2}, Valerio Gaetano VELLONE³, Ezio FULCHERI^{1,3}

¹ Fetal, Placental & Gynecologic Pathology Unit, Istituto Giannina Gaslini, Genoa, Italy. ² Dept. of Neurosciences, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINO GMI), University of Genoa, Italy. ³ Dept. of Integrated Diagnostic and Surgical Sciences (DISC), University of Genoa, Italy

NEW PROTOCOLS FOR REGENERATIVE MEDICINE IN POST COVID-19 TREATMENT CONFIGURED ON THE PERSONALIZED USE OF OXYGEN AND OZONE-BASED THERAPIES.

Antonio Carlo GALOFORO¹, Catia SCASSELLATI¹, Cristian BONVICINI¹, Emiliana MINENNA², Paolo BONIVENTO³

¹IRCCS Istituto Centro San Giovanni di Dio Fatebenefratelli - Brescia; ²REBORN srl StartUp Innovativa – Latina/Trieste; ³IEMEST - Palermo.

PNPLA3 AND TLL-1 POLYMORPHISMS AFFECT DISEASE SEVERITY IN PATIENTS WITH COVID-19.

Stefania GRIMAUDDO¹, Rossella ZITO¹, Giulia LUPO¹, Rosaria Maria PIPITONE¹

¹Department of Health Promotion, Mother and Child Care, Internal Medicine and Medical Specialties "G. D'Alessandro" - University of Palermo – Italy

MOLECULAR MIMICRY MAY EXPLAIN MULTI-ORGAN DAMAGE IN COVID-19.

Antonella MARINO GAMMAZZA¹, Sébastien LEGARE², Angileri Francesca³, Giosuè LO BOSCO⁴, Alberto FUCARINO¹, Rosario BARONE¹, Francesca RAPPÀ¹, Everly CONWAY DE MACARIO⁵, Alberto JL MACARIO^{5,6}, Francesco CAPPELLO^{1,6}

¹Department of Biomedicine, Neurosciences and advanced Diagnostics (BiND), University of Palermo, Palermo, Italy; ²Département d'Informatique de l'ÉNS, ÉNS, CNRS, Université PSL, Paris, France; ³Centre Léon Bérard, Cancer Research Center of Lyon, Université de Lyon, Université Claude Bernard Lyon 1, INSERM 1052, CNRS 5286, Lyon, France; ⁴Department of Mathematics and Computer Science, University of Palermo, Palermo, Italy; ⁵Department of Microbiology and Immunology, School of Medicine, University of Maryland at Baltimore-Institute of Marine and Environmental Technology (IMET), Baltimore, MD 21202, USA; ⁶Euro-Mediterranean Institute of Science and Technology (IEMEST), 90139 Palermo, Italy.

HISTOLOGICAL AND IMMUNOMORPHOLOGICAL FEATURES IN LUNG OF COVID19 SUBJECTS.

Francesca RAPPA¹, Rosario BARONE¹, Antonella MARINO GAMMAZZA¹, Alessandro PITRUZZELLA¹, Letizia PALADINO¹, Francesco SESSA², Monica SALERNO³, Cristoforo POMARA³, Everly CONWAY DE MACARIO⁴, Alberto JL MACARIO^{4,5}, Francesco CAPPELLO^{1,5}
¹*Department of Biomedicine, Neurosciences and advanced Diagnostics (BiND), University of Palermo, Palermo, Italy;* ²*Department of Clinical and Experimental Medicine, University of Foggia, Italy;* ³ *Department of Medical, Surgical and Advanced Technologies “G.F. Ingrassia”, University of Catania, Italy* ⁴*Department of Microbiology and Immunology, School of Medicine, University of Maryland at Baltimore-Institute of Marine and Environmental Technology (IMET), Baltimore, USA;* ⁵*Euro-Mediterranean Institute of Science and Technology (IEMEST), 90139 Palermo, Italy.*

UV IRRADIATION AND SARS-CoV-2: A FOCUS ON UVA/UVB/UVC-INACTIVATION ON VIRAL REPLICATION.

Sergio STRIZZI^{1,2}, Andrea BIANCO³, Olga UTYRO¹, Daria TRABATTONI¹, Mara BIASIN¹, Giovanni PARESCHI², Mario CLERICI¹
¹ *DIBIC University of Milan;* ² *University of Sassari;* ³ *INAF- Brera Astronomical Observatory Merate*

CYCLOSPORINE A INHIBITS SARS-CoV-2 INFECTION IN-VITRO.

Claudia VANETTI¹, Silvia GALBIATI², Claudio FENIZIA¹, Riccardo VAGO³, Mario CLERICI¹, Carlo TACCHETTI^{4,5} and Tiziana DANIELE⁴
¹*DEPT, University of Milan;* ²*DRI, IRCCS San Raffaele Scientific Institute;* ³*Bladder Cancer Unit, URI, IRCCS San Raffaele Scientific Institute;* ⁴*Tumor Imaging Unit, EIC, IRCCS San Raffaele Scientific Institute;* ⁵*Vita-Salute San Raffaele University.*

MICRO- E NANOVESICOLE IN BIOMEDICINA, ore 14.00 – 16.00

EXTRACELLULAR VESICLES FROM HIGH GRADE GLIOMA: TOWARDS A SMART COMBINATION OF MICROSCOPIC AND PROTEOMIC ANALYSIS IN A HETEROGENEOUS LANDSCAPE.

Giusi ALBERTI¹, Christian SÁNCHEZ-LÓPEZ^{2,3}, Celeste CARUSO BAVISOTTO¹, Francesca RAPPA¹, Fabio BUCCHIERI¹, Francesco CAPPELLO¹, Antonio MARCILLA^{2,3}, Claudia CAMPANELLA¹
¹*Department of Biomedicine, Neurosciences and advanced Diagnostics (BiND), University of Palermo, Palermo, Italy.* ²*Área de Parasitología, Dept. Farmacia y Tecnología Farmacéutica y Parasitología, F. Farmacia, Universitat de València, Burjassot (Valencia), Spain.* ³*Joint Unit of Endocrinology, Nutrition and Clinical Dietetics, Instituto de Investigación Sanitaria-La Fe, Valencia, Spain*

EFFECT OF MESENCHYMAL STEM CELL-DERIVED EXTRACELLULAR VESICLES ON DAMAGED HUMAN CORNEAL ENDOTHELIAL CELLS.

Lola BUONO¹, Simona SCALABRIN², Marco DE IULIIS², Raffaele NUZZI², Benedetta BUSSOLATI¹
¹ *Department of Biotechnology and Health Sciences, University of Turin, Turin, Italy.* ² *Eye Clinic, Department of Surgical Sciences, University of Turin, AOU Città della Salute e della Scienza, Ophthalmic Clinic, Turin, Italy.*

DISSECTING THE ROLE OF EXTRACELLULAR VESICLES IN THE CROSS-TALK BETWEEN ADIPOSE TISSUE AND PROSTATE CANCER.

Fabrizio FONTANA¹, Monica MARZAGALLI¹, Michela RAIMONDI¹, Emanuela CAROLLO², Patrizia SARTORI³, Patrizia PROCACCI³, David CARTER², Patrizia LIMONTA¹

¹*Department of Pharmacological and Biomolecular Sciences, University of Milan;* ²*Department of Biological and Medical Sciences, Oxford Brookes University;* ³*Department of Biomedical Sciences for Health, University of Milan.*

EXPLORATION OF MICROALGAE-DERIVED EXTRACELLULAR VESICLES: CELLULAR UPTAKE OF NANOALGOSOMES.

Sabrina PICCIOTTO¹, Giorgia ADAMO¹, Estella RAO², Angela PATERNA², Samuele RACCOSTA², Antonella CUSIMANO¹, Rosina NOTO², Nicolas TOUZET³, Mauro MANNO², Daniele P. ROMANCINO¹ and Antonella BONGIOVANNI¹

¹*Institute for Research and Biomedical Innovation (IRIB) - National Research Council of Italy (CNR), Palermo, Italy;* ²*Institute of Biophysics (IBF) - National Research Council of Italy (CNR), Palermo, Italy;* ³*Centre for Environmental Research Innovation and Sustainability Institute of Technology Sligo*

EFFECTS OF COLON CANCER-DERIVED SMALL EXTRACELLULAR VESICLES ON HEPATOCYTES: NEW INSIGHTS IN LIVER PRE-METASTATIC NICHE FORMATION.

Marzia PUCCI¹, Ornella URZI¹, Marta MOSCHETTI¹, Alice CONIGLIARO¹, Riccardo ALESSANDRO¹, Simona FONTANA¹

¹*Department of Biomedicine, Neuroscience and Advanced Diagnostics (Bi.N.D), Section of Biology and Genetics, University of Palermo, 90133 Palermo, Italy.*

DEVELOPMENT OF A NEW ANTI-CACHECTIC DRUG BASED ON NANO-VESICLES.

Martina SAUSA¹, Eleonora TROVATO¹, Filippo GIAMBALVO¹, Rosario BARONE¹, Valentina DI FELICE¹

¹*Dipartimento di Biomedicina, Neuroscienze e Diagnostica Avanzata, Via del vespro 129, 90127 Palermo, Italia.*

CHARACTERIZATION OF SURFACE MARKERS OF DIFFERENT MSC-EV POPULATIONS USING MACSPLEX, EXOVIEW AND NANOIMAGER.

Renata SKOVRONOVA¹, Cristina GRANGE², Benedetta BUSSOLATI¹

¹*Department of Molecular Biotechnology and Health Sciences, University of Turin, Italy.* ²*Department of Medical Sciences, University of Turin, Italy*

LEMON-DERIVED EXTRACELLULAR VESICLES EXERT ANTI-INFLAMMATORY EFFECTS BY INHIBITING THE ERK/NF-KB PATHWAY.

Ornella URZI¹, Stefania RAIMONDO¹, Marta DI SIMONE^{1,2}, Anna Maria CORSALE^{1,2}, Serena MERAUIGLIA^{1,2}, Alice CONIGLIARO¹, Antonio PALUMBO PICCIONELLO³, Giulia POLITO³, Francesco DIELI^{1,2}, Riccardo ALESSANDRO¹.

¹*Dipartimento di Biomedicina, Neuroscienze e Diagnostica Avanzata, Università degli Studi di Palermo;* ²*Central Laboratory of Advanced Diagnosis and Biomedical Research (CLADIBIOR), AOUP Paolo Giaccone, Palermo, Italy;* ³*Dipartimento di Scienze e Tecnologie Biologiche Chimiche e Farmaceutiche, Università degli Studi di Palermo.*

NATURA E SALUTE NELL'AREA EURO-MEDITERRANEA, ore 16.00 – 18.00

EFFECTS OF IRON ON THE TRANSCRIPTION OF STRESS-RELATED GENES IN THE SOLITARY ASCIDIAN *CIONA ROBUSTA*.

Loriano BALLARIN¹, Laura DRAGO¹, Gianfranco SANTOVITO¹

¹ *University of Padova, Department of Biology, Via Ugo Bassi 58/B, 35131 Padova, Italy*

DIGITAL TECHNOLOGIES APPLIED TO CONTROL THE DECARBOXYLATION PROCESS OF CANNABIS OIL EXTRACTION.

Paolo BONGIORNO¹, Pasquale ALBA¹, Diego Mammo ZAGARELLA¹, Alfredo SILVANO¹, Antonio LOPALCO², Angela Assunta LOPEDOTA², Sergio FONTANA³, Nunzio DENORA²

¹ *Research Group - Farmacia Dott. Paolo Bongiorno Via Vitt. Veneto 17/10 92026 Favara AG – Energicamente SRL. Via Jugoslavia, 15, 92026 Favara AG.* ² *Dipartimento di Farmacia – Scienze del Farmaco, Università degli Studi di Bari “Aldo Moro”, Via E. Orabona, 4, 70125 Bari, Italy.* ³ *Centro Studi e Ricerche “Dr. S. Fontana 1900-1982”, Farmalabor s.r.l., Via Piano S. Giovanni, 47, 76012 Canosa di Puglia (BT), Italy*

THE PROBLEM OF INDOOR AIR MANAGEMENT IN A CRITICAL PERIOD: WE CAN LEARN FROM TERMITES.

Paolo BONIVENTO¹, Vincenzo BRUNO², Emiliana MINENNA³, Stanislao DI AMATO³

¹*IEMEST - Palermo;* ²*Special Technology srl - Torino;* ³*REBORN srl StartUp Innovativa – Latina/Trieste.*

GREEN SYNTHESIS OF ARTEMISIA SILVER NANOPARTICLES AND THEIR ANTIMALARIAL EFFECT.

Elisabetta AVITABILE¹, Nina SENES², **Cristina D'AVINO**¹, Ioannis TSAMESIDIS³, Alessandra PINNA⁴, Serenella MEDICI², Antonella PANTALEO¹

¹*Department of Biomedical Sciences, University of Sassari, Sassari, Italy;* ²*Department of Chemistry and Pharmacy, University of Sassari, Sassari, Italy;* ³*UMR 152 Pharma-Dev, Université de Toulouse, Toulouse, France* ⁴*Department of Materials, Imperial College London, London, United Kingdom.*

POLYHYDROXYNAPHTHOQUINONE PIGMENTS FROM SEA URCHINS WASTE: STRATEGIES FOR BIOMASS VALORIZATION.

Giordana MARTINELLI¹, Stefania MARZORATI¹, Luca MELOTTI², Chiara PORZIO¹, Marco PATRUNO², Michela SUGNI¹, Luisella VEROTTA¹

¹ *Department of Environmental Science and Policy, Università degli Studi di Milano, Via Celoria 2, 20133 Milano;* ² *Department of Comparative Biomedicine and Food Science, University of Padova, Viale dell'Università 16, 35020 Legnaro – Agripolis Padova.*

PRESENCE OF MELANOMACROPHAGE CENTERS IN THE MALE GONADS OF TWO SPECIES OF MULLIDAE AS INDICATORS OF EXPOSURE TO ENVIRONMENTAL CONTAMINANTS.

Bianca Rosa MAUGERI¹, Anna Maria PAPPALARDO¹, Venera FERRITO¹, Alessandra RAFFA¹.

¹*Università degli Studi di Catania – Dipartimento di Scienze Biologiche, Geologiche e Ambientali-Sez. Biologia Animale – Via Androne, 81 95125 Catania, Italy*

FISH WASTE, NOT A PROBLEM BUT A POSSIBLE SOLUTION: CHITOSAN EXTRACTS AND NEW PACKAGING POSSIBILITIES.

Manuela MAURO¹, Mirella VAZZANA¹, Paola PINTO¹, Valeria PUCCIO², Luca SETTANNI², Vita DI STEFANO¹, Antonio FABBRIZIO³, Broni HORNSBY¹, Vincenzo ARIZZA¹

¹ *Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), University of Palermo, Palermo, 90128, Italy;* ² *Department of Agricultural, Food and Forestry Sciences (SAAF), University of Palermo, Palermo, 90128, Italy;* ³ *University eCampus, Novedrate, Como, 22060, Italy*

VITELLOGENIN AS A BIOMARKER OF EXPOSURE TO ENDOCRINE DISRUPTORS IN TWO SPECIES OF MULLIDAE, MULLUS BARBATUS AND MULLUS SURMULETUS.

Alessandra RAFFA¹, Antonella GARGANO², Rosalia FERRERI², Anna Maria PAPPALARDO¹, Evaristo MAÑANOS³, Venera FERRITO¹

¹ *Università degli Studi di Catania, Dipartimento di Sc. Bio, Geo e Amb-Sez. Biologia Animale 95125 Catania, Italy;* ² *Consiglio Nazionale Delle Ricerche (CNR)—Istituto per lo Studio Degli Impatti Antropici e Sostenibilità in Ambiente Marino (IAS), 91021 Torretta Granitola, Fraz. Campobello di Mazara (TP);* ³ *Instituto de Acuicultura de Torre la Sal (IATS-CSIC), 12595-Ribera de Cabanes, Castellón, Spain.*

EFFECTS OF HERBICIDE EXPOSURE ON HAEMOCYTE MORPHOLOGY IN A GROUND BEETLE.

Maria Luigia VOMMARO¹, Pietro BRANDMAYR¹, Piero Giulio GIULIANINI², Anita GIGLIO¹

¹ *Department of Biology, Ecology and Earth Science, University of Calabria, Rende, Italy*

² *Department of Life Sciences University of Trieste, Trieste, Italy*

23 aprile

NEUROSCIENZE, ore 9.30 – 13.00

EXPOSURE TO BISPHENOL A OR S DURING PREGNANCY AND LACTATION ALTERS MATERNAL BEHAVIOR IN MICE.

Brigitta BONALDO^{1,2}, Marilena MARRAUDINO^{1,2}, Laura GIOIOSA³, Stefano GOTTI^{1,2}, GianCarlo PANZICA^{1,2}

¹ *Department of Neuroscience “Rita Levi-Montalcini”, Via Cherasco 15, 10126-Turin (TO), Italy.* ² *Neuroscience Institute Cavalieri Ottolenghi (NICO), Regione Gonzole, 10-10043 Orbassano (TO), University of Turin, Turin, Italy.* ³ *Department of Medicine and Surgery, University of Parma, Viale delle Scienze 11/A, Parma, Italy.*

PLEIOTROPIC ROLE OF THE TRANSCRIPTIONAL REGULATOR NR2F1/COUP-TFI IN THE ADULT MOUSE HIPPOCAMPUS: FROM THE CONTROL OF NEURAL STEM CELL BEHAVIOR TO MITOCHONDRIAL FUNCTION IN NEURONS.

Sara BONZANO^{1,2}, Filippo MICHELON^{1,2}, Isabella CRISCI^{1,2}, Ivan MOLINERIS², Michèle STUDER³, Ruth BECKERVORDER SANDFORTH⁴, Silvia DE MARCHIS^{1,2}

¹ *Neuroscience Institute Cavalieri Ottolenghi (NICO), Orbassano (Turin), Italy;* ² *Department of Life Sciences and Systems Biology (DBIOS), University of Turin, Italy;* ³ *Université Côte d’Azur (UCA), CNRS, Inserm, iBV, Nice, France;* ⁴ *Friedrich-Alexander Universität Erlangen-Nürnberg (FAU), Germany.*

PARALLEL FAST AND SLOW MOTOR INHIBITION IN JOINT ACTION.

Pasquale CARDELLICCHIO_A, Elisa DOLFINI_{AB}, Erica SARDARO_B, Luciano FADIGA_{AB}, Alessandro D'AUSILIO_{AB}

a) *IIT@UniFe Center for Translational Neurophysiology, Istituto Italiano di Tecnologia, Ferrara, Italy.* b) *Section of Physiology, Università di Ferrara, Ferrara, Italy*

PACAP NEUROPROTECTIVE EFFECTS: FOCUS ON ANTIINVASIVE ROLE EXERTED IN GLIOBLASTOMA MULTIFORME.

Agata Grazia D'AMICO¹, Grazia MAUGERI², Velia D'AGATA³

¹ *Department of Drug Sciences, University of Catania, Italy;* ² *Department of Biomedical and Biotechnological Sciences, Section of Anatomy, Histology and Movement Sciences, University of Catania, Italy.*

THE ROLE OF PREMOTOR AREAS IN GABAERGIC INHIBITION IN JOINT ACTION.

Pasquale CARDELLICCHIO_A, **Elisa DOLFINI**_{AB}, Erica SARDARO_B, Luciano FADIGA_{AB}, Alessandro D'AUSILIO_{AB}

a) *IIT@UniFe Center for Translational Neurophysiology, Istituto Italiano di Tecnologia, Ferrara, Italy.* b) *Section of Physiology, Università di Ferrara, Ferrara, Italy*

MUTATED ION CHANNELS-ENCODING GENES COULD IMPAIR RETINAL NEUROTRANSMISSION: NEW INSIGHTS ON RETINAL DEGENERATIONS.

Luigi DONATO^{1,2}, Concetta SCIMONE^{1,2}, Simona ALIBRANDI^{1,3}, Carmela RINALDI¹, Ebtessam MOHAMED ABDALLA⁴, Karim MAHMOUD NABIL⁵, Rosalia D'ANGELO¹, Antonina SIDOTI¹

¹*Department of Biomedical and Dental Sciences and Morphofunctional Imaging, Division of Medical Biotechnologies and Preventive Medicine, University of Messina, Messina, Italy;* ²*Department of Biomolecular strategies, genetics, cutting-edge therapies, I.E.ME.S.T., Palermo, Italy;* ³*Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy;* ⁴*Department of Human Genetics, Medical Research Institute, University of Alexandria, Egypt;* ⁵*Department of Ophthalmology, Faculty of Medicine, University of Alexandria, Egypt.*

COMPARISON OF DECELLULARIZATION PROTOCOLS TO GENERATE PERIPHERAL NERVE GRAFTS: A STUDY ON RAT SCIATIC NERVES.

Marwa EL SOURY *^{1,2,3}, Óscar Darío GARCIA-GARCIA*^{3,4}, Matteo MORETTI^{5,6}, Isabelle PERROTEAU¹, Stefania RAIMONDO^{1,2}, Arianna-Barbara LOVATI⁵ and Víctor CARRIEL^{3,4}

¹ *Department of Clinical and Biological Sciences, University of Torino, 10043.* ² *Neuroscience Institute Cavalieri Ottolenghi (NICO), University of Torino, 10043 Orbassano, Italy.* ³ *Department of Histology, Tissue Engineering Group, University of Granada, 18012 Granada, Spain.* ⁴ *Instituto de Investigacion Biosanitaria, Ibs.GRANADA, 18012 Granada, Spain.* ⁵ *Cell and Tissue Engineering Laboratory, IRCCS Istituto Ortopedico Galeazzi, 20161 Milan, Italy.* ⁶ *Regenerative Medicine Technologies Lab, Ente Ospedaliero Cantonale, 6900 Lugano, Switzerland*

EXPLORING HUMAN BRAIN VISUO-MOTOR PLASTICITY WITH A NEW PAIRED ASSOCIATIVE STIMULATION PROTOCOL

Giacomo GUIDALI^{1,2}, Nadia BOLOGNINI^{2,3}

¹ *Neurophysiology Lab, IRCCS Istituto Centro San Giovanni di Dio Fatebenefratelli, Brescia;* ² *Dipartimento di Psicologia & NeuroMI, Università degli studi di Milano-Bicocca;* ³ *Laboratorio di Neuropsicologia, IRCCS Istituto Auxologico Italiano, Milano.*

MOTOR NEURON VULNERABILITY AND RESISTANCE IN AMYOTROPHIC LATERAL SCLEROSIS: THE ROLE OF PITUITARY ADENYLATE CYCLASE-ACTIVATING POLYPEPTIDE.

Grazia MAUGERI¹, Agata Grazia D'AMICO², Velia D'AGATA¹

¹*Department of Biomedical and Biotechnological Sciences, Section of Anatomy, Histology and Movement Sciences, University of Catania, Italy;* ²*Department of Drug Sciences, University of Catania, Italy.*

α-SYNUCLEIN AS A COMMON KEY PLAYER IN NEURODEGENERATION AND EPILEPTOGENESIS.

Niccolò MILANI¹, Samanta MAZZETTI^{1,2}, Debora MODENA¹, Dalia DE SANTIS³, Rita GARBELLI³, Giulia COLOMBO⁴, Andrea BECCHETTI⁴, Graziella CAPPELLETTI^{1,5} and Alida AMADEO^{1,5}

¹*Department of Biosciences, Università degli Studi di Milano, Milan, Italy.* ²*Fondazione Grigioni per il Morbo di Parkinson, Milan, Italy.* ³*Epilepsy Unit, Fondazione I.R.C.C.S. Istituto Neurologico "C. Besta", Milan, Italy.* ⁴*Department of Biotechnology and Biosciences, University of Milano-Bicocca and NeuroMI, Milan Center of Neuroscience, Italy.* ⁵*Center of Excellence on Neurodegenerative Diseases, Università degli Studi di Milano, Milan, Italy.*

UNVEILING A NOVEL ROLE FOR CYTOPLASMIC HDAC4 IN DMD.

Alessandra RENZINI¹, Giorgia CAVIOLI¹, Marco D'ONGHIA¹, Sergio ADAMO¹, Dario COLETTI^{1,2} and Viviana MORESI³

¹*Dept of Anatomical, Histological, Forensic & Orthopaedic Sciences, Histology & Medical Embryology Section, Sapienza University of Rome, Italy;* ²*CNRS UMR 8256, INSERM ERL U1164, Biological Adaptation and Aging B2A, Sorbonne Université, Paris, France;* ³*Institute of Nanotechnology - CNR, Rome Unit, Rome, Italy.*

MUTATIONS AT IMPRINTED LOCI AS MOLECULAR MECHANISM IN PEDIATRIC BRAIN ARTERIOVENOUS MALFORMATIONS.

Concetta SCIMONE^{1,2}, Luigi DONATO^{1,2}, Simona ALIBRANDI^{1,3}, Antonio A. CARAGLIANO⁴, Enricomaria MORMINA^{4,5}, Sergio VINCI⁴, Carmela RINALDI¹, Rosalia D'ANGELO^{1,2}, Antonina SIDOTI^{1,2}

¹*Department of Biomedical and Dental Sciences and Morphofunctional Imaging, University of Messina, Messina, Italy;* ²*Department of Biomolecular strategies, genetics, cutting-edge therapies, I.E.M.E.S.T., Palermo, Italy;* ³*Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy;* ⁴*Neuroradiology Unit - Department of Biomedical, Dental, Morphological and Functional Imaging Sciences, University of Messina, Via Consolare Valeria 1, 98125 Messina, Italy;* ⁵*Department of Clinical and Experimental Medicine*

MITOCHONDRIAL MORPHO-FUNCTIONAL DYSFUNCTIONS IN SPINAL MUSCULAR ATROPHY: FOCUS ON ACONITASE2

Serena STANGA¹, Gianna PAVARINO¹, Federica MONTELEONE¹, Barbara PERGOLIZZI², Alessandro VERCELLI¹, Marina BOIDO¹

¹*Neuroscience Institute Cavalieri Ottolenghi, University of Turin, 10043 Orbassano (TO), Italy;* *Department of Neuroscience Rita Levi Montalcini, University of Turin, 10126 Turin, Italy;* ²*Department of Clinical and Biological Sciences, University of Turin, AOUS. Luigi, 10043 Orbassano TO, Italy.*

IMPACT OF HONEY REGULAR INTAKE ON NEURODEGENERATION IN AN ANIMAL MODEL WITH DIET-INDUCED OBESITY

Simona TERZO^{1,2}, Flavia MULÈ², Pasquale CALVI², Antonella AMATO².

¹ *Department of Biomedicine, Neuroscience, and Experimental Diagnostics, University of Palermo, Italy;* ² *Department of Biological- Chemical- Pharmaceutical Science and Technology, University of Palermo, Italy*

III SIMPOSIO DI BIOLOGIA SPERIMENTALE APPLICATA AL MARE E ALL'AMBIENTE, ore 14.00 – 16.00

Vedi pag. 22

LETTURA “GAETANO QUAGLIARIELLO”, ore 16.00-17.00

Vedi pag. 5

ASSEMBLEA DEI SOCI, ore 17.00-18.00

24 aprile

NUTRIZIONE E METABOLISMO, ore 9.00 – 11.00

MEDICINAL MUSHROOMS AS INGREDIENTS IN SUPERFOODS, PREBIOTIC EFFECT AND ROLE ON HUMAN HEALTH.

Fortunato CIRLINCIONE¹, Giuseppe VENTURELLA¹

¹ *Dipartimento Scienze Agrarie, Alimentari e Forestali, Università di Palermo, Viale delle Scienze 4, 90128 Palermo, Italy.*

ADIPOSE-DERIVED STEM CELL DIFFERENTIATION, BEIGE PHENOTYPE AND INFLAMMATION.

Sara CRUCIANI¹, Giuseppe GARRONI¹, Emanuela BELLU¹, Carlo VENTURA², Margherita MAIOLI¹

¹ *Department of Biomedical Sciences, University of Sassari, Viale San Pietro 43/B, 07100 Sassari, Italy;* ² *Laboratory of Molecular Biology and Stem Cell Engineering, National Institute of Biostructures and Biosystems - Eldor Lab, Innovation Accelerator, Consiglio Nazionale delle Ricerche, Bologna 40129, Italy.*

MORPHO-PHYSIOLOGICAL CORRELATIONS IN PRESENCE OF AN EXCESS OF NUTRIENTS IN A Caco2/ HT-29 CO-CULTURE.

Elena DONETTI¹ and Anita FERRARETTO¹

¹ *Dipartimento di Scienze Biomediche per la Salute, Università degli Studi di Milano.*

MAGNESIUM DEFICIENCY INDUCES LIPID ACCUMULATION BY UPREGULATING EDF-1 AND PPAR γ .

Giorgia FEDELE, Roberta SCRIMIERY, Monica ZOCCHI, Alessandra CAZZANIGA, Sara CASTIGLIONI, Laura LOCATELLI

Department of Biomedical and Clinical Sciences L. Sacco, Università di Milano, Via GB Grassi 74, 20157 Milano, Italy.

UNDERSTANDING THE POTENTIAL HEALTH BENEFITS OF PLANT FOODS PROTEINS BEYOND THEIR NUTRITIVE ROLE.

Giuditta Carlotta HEINZL¹, Jessica CAPRARO¹, Chiara MAGNI¹, Alessio SCARAFONI¹ and Stefano DE BENEDETTI¹.

¹ *Department of Food, Environmental and Nutritional Sciences, Università degli Studi di Milano, 20122 Milano, Italy.*

THE GUT-BRAIN AXIS: PROTECTIVE ROLE OF *LACTOBACILLUS FERMENTUM* IN A MOUSE MODEL OF ETHANOL-INDUCED OXIDATIVE STRESS DAMAGE.

Letizia PALADINO^{1,2}, Rosario BARONE¹, Francesca RAPPA¹, Filippo MACALUSO³, Everly CONWAY de MACARIO E⁴, Alberto J. L. MACARIO^{2,4}, Francesco CAPPELLO^{1,2}, Antonella MARINO GAMMAZZA¹

¹*Department of Biomedicine, Neurosciences and advanced Diagnostics (BiND), University of Palermo, Palermo, Italy;* ²*Euro-Mediterranean Institute of Science and Technology (IEMEST), Palermo, Italy;* ³*SMART Engineering Solutions & Technologies Research Center, eCampus University, Novedrate, Italy;* ⁴*Department of Microbiology and Immunology, School of Medicine, University of Maryland at Baltimore-IMET, Baltimore, Maryland, USA.*

VITAMIN D PREVENTS TRIGLYCERIDES ACCUMULATION IN ENDOTHELIAL CELLS EXPOSED TO HIGH GLUCOSE.

Roberta SCRIMIERY¹, Laura LOCATELLI¹, Giorgia FEDELE¹, Monica ZOCCHI¹, Alessandra CAZZANIGA¹

¹ *Department of Biomedical and Clinical Sciences “L. Sacco”, Università degli Studi di Milano – 20157 – Milan, Italy.*

IODINE BIOFORTIFICATION IN GROWN CURLY ENDIVE AS A NOVEL FUNCTIONAL FOOD: PILOT NUTRITIONAL INTERVENTION IN HEALTHY YOUNG INDIVIDUALS.

Sonya VASTO^{1,4}, Sara BALDASSANO¹, Leo SABATINO², Claudio DE PASQUALE², Francesca DI GAUDIO³

¹ *Department of Biological, Chemical and Pharmaceutical Sciences and Technologies, University of Palermo, Palermo, Italy;* ²*Dipartimento Scienze Agrarie, Alimentari e Forestali (SAAF), University of Palermo, viale delle Scienze, ed. 5-90128 Palermo, Italy;* ³ *Department of Biopatologia e Biotecnologie Mediche e Forensi (DiBiMEF), AOUP “Paolo Giaccone” University of Palermo, Palermo, Italy;* ⁴ *Euro-Mediterranean Institute of Science and Technology (IEMEST), 90139 Palermo, Italy.*

MAGNESIUM DEFICIENCY IMPACTS ON SKELETAL MUSCLE REGENERATION BY INFLUENCING MEMBRANE FUSION.

Monica ZOCCHI, Laura LOCATELLI, Giorgia FEDELE, Alessandra CAZZANIGA, Roberta SCRIMIERY, Sara CASTIGLIONI

Dipartimento Scienze Biomediche e Cliniche “L. Sacco”, Università degli Studi di Milano.

SCIENZA E MEDICINA DELLO SPORT E DELL'ESERCIZIO FISICO, ore 11.00 – 13.00

EFFECT OF LONG-TERM SUPERJUMP® TRAINING ON BONE REMODELING AND METABOLISM IN WOMEN

Alessandra AMATO¹, Sonya Vasto², Rosalia Caldarella³, Giuseppe Messina¹, Patrizia Proia¹, Sara Baldassano²
¹*Department of Psychological, Pedagogical and Educational Sciences, Sport and Exercise Sciences Research Unit, University of Palermo*, ²*Department of Biological, Chemical and Pharmaceutical Sciences and Technologies, University of Palermo* ³*U.O.C. CoreLab A.O.U.P. "Paolo Giaccone"*

PERIPHERAL MODULATION OF CENTRAL FATIGUE DEVELOPMENT DURING PHYSICAL EXERCISE: FINDINGS FROM EQUINE ATHLETE MODEL.

Francesca ARFUSO, Claudia Giannetto, Elisabetta Giudice, Francesco Fazio, Michele Panzera, Giuseppe Piccione
Department of Veterinary Sciences, University of Messina, Messina, Italy.

SEX-BASED DIFFERENCES OF SKELETAL MUSCLE AFTER A SINGLE BOUT OF ENDURANCE EXERCISE.

Daniela D'AMICO^{1,2}, Antonella MARINO GAMMAZZA¹, Filippo MACALUSO^{3,4}, Letizia PALADINO¹, Federica SCALIA^{1,3,4}, Giulio SPINOSO¹, Ivan DIMAURO⁵, Daniela CAPOROSSO⁵, Francesco CAPPELLO^{1,4}, Valentina DI FELICE¹, Rosario BARONE¹

¹*Dpt of Biomedicine, Neuroscience and Advanced Diagnostics, University of Palermo, Palermo, Italy*; ²*Department of Neuroscience, Cell Biology, and Anatomy, UTMB, Galveston, TX, USA*; ³*SMART Engineering Solutions & Technologies Research Center, eCampus University, Novedrate, Italy*; ⁴*Euro-Mediterranean Institutes of Science and Technology, Palermo, Italy*; ⁵*Department of Movement, Human and Health Sciences, University of Rome Foro Italico, Rome, Italy.*

PATTERNS OF RAPID WEIGHT LOSS IN ELITE SAMBO ATHLETES.

Patrik DRID^{1*}, Flavia FIGLIOLI², **Nemanja LAKICEVIC**², Ambra GENTILE², Valdemar STAJER¹, Bojan RASKOVIC¹, Nina VOJVODIC¹, Roberto ROKLICER¹, Tatjana TRIVIC¹, Sergey TABAKOV³, Sergey ELISEEV³, Antonino BIANCO²

¹*Faculty of Sport and Physical Education, University of Novi Sad, Novi Sad, Serbia.* ²*Sport and Exercise Sciences Research Unit, University of Palermo, Palermo, Italy.* ³*Russian State University of Physical Education, Sports, Youth and Tourism, Moscow, Russia.*

MORPHOLOGICAL ADAPTATIONS OF SKELETAL MUSCLE FIBERS AFTER PLYOMETRIC EXERCISE.

Kathryn H MYBURGH¹, Ashwin W ISAACS¹, Carine SMITH¹, **Filippo MACALUSO**^{2,3,4}

¹*Department of Physiological Sciences, Stellenbosch University, Stellenbosch, South Africa*; ²*SMART Engineering Solutions & Technologies research center, eCampus University, Italy*; ³*Euro-Mediterranean Institute of Science and Technology, Italy.*

AEROBIC EXERCISE AND PHARMACOLOGICAL TREATMENTS COUNTERACT CACHEXIA BY MODULATING AUTOPHAGY IN COLON CANCER.

Eva PIGNA¹, Emanuele BERARDI¹, Rosario BARONE², Filippo MACALUSO², Valentina DI FELICE², Sergio ADAMO¹, Dario COLETTI¹, **Viviana MORESI**³.

¹*DAHFMU Unit of Histology and Medical Embryology, Interuniversity Institute of Myology, Sapienza University of Rome, Italy*; ²*Department of Biomedicine, Neuroscience and Experimental Diagnostics (BIND), University of Palermo, Italy*; ³*Institute of Nanotechnology - CNR, Rome Unit, Rome, Italy.*

ROLE OF SKELETAL MUSCLE PERICYTES IN THE ANGIOGENIC AND MYOGENIC RESPONSE TO EXERCISE IN YOUNG AND OLDER ADULTS.

Tatiana MORO¹, Antonio PAOLI¹, Giorgia SCHIAVINOTTO¹, Lisa VIGO¹, Blake B. RASMUSSEN², Elena VOLPI³, Christopher S. FRY⁴

¹*Departement of Biomedical Sciences; University of Padova;* ²*Department of Nutrition & Metabolism, University of Texas Medical Branch, Galveston, USA;* ³*Department of Internal Medicine/Geriatrics, University of Texas Medical Branch, Galveston;* ⁴*Department of Athletic Training and Clinical Nutrition, University of Kentucky, USA.*

PHYSICAL ACTIVITY TO PREVENT KNEE OSTEOARTHRITIS “THE SYNOVIUM THEORY”.

Giuseppe MUSUMECI

Department of Biomedical and Biotechnological Sciences, Anatomy, Histology and Movement Sciences Section, School of Medicine, University of Catania, Via S. Sofia 87, 95123 Catania, Italy; Research Center on Motor Activities (CRAM), University of Catania, 95123 Catania, Italy. Department of Biology, Sbarro Institute for Cancer Research and Molecular Medicine, College of Science and Technology, Temple University, Philadelphia, PA 19122, USA.

STRETCHING BEYOND FLEXIBILITY.

Ewan THOMAS, Antonino PATTI, Antonino BIANCO, Giuseppe BATTAGLIA, Antonio PALMA, Marianna BELLAFFIORE

Sport and Exercise Research Unit, Department of Psychological, Educational Science and Human Movement, University of Palermo, Palermo, Italy.

STRESS CELLULARE, ore 14.00-17.00

GOLD NANOFIBERS AND VITAMIN D: A NOVEL FUNCTIONALIZED NANODEVICE SUPPORTING SKIN REGENERATION.

Emanuela BELLU¹, Evzen AMLER², Margherita MAIOLI^{1,3}

¹*Department of Biomedical Sciences, University of Sassari, Viale San Pietro 43/B, 07100 Sassari, Italy;* ²*Institute of Biophysics, 2nd Faculty of Medicine, Charles University, V Uvalu 84, 150 06 Prague 5, Czech Republic;* ³*Department of Biomedical Sciences, Center for Developmental Biology and Reprogramming, University of Sassari, Viale San Pietro 43/B, 07100 Sassari, Italy.*

BINGE ALCOHOL DRINKING DURING ADOLESCENCE ALTERS STRESS RESPONSE IN THE NUCLEUS ACCUMBENS AND DECREASES SOCIAL RESILIENCE IN RATS.

Anna BRANCATO¹, Valentina CASTELLI², Fulvio PLESCIA¹ and Carla CANNIZZARO¹

¹*Department of Health Promotion, Mother and Child Care, Internal Medicine and Medical Specialties of Excellence “G. D’Alessandro”;* ²*Department of Biomedicine, Neurosciences and Advanced Diagnostics*

CIRCULATING IMMUNE-CHECKPOINTS AND LYMPHOCYTE MICRORNAs IN RENAL CELL CARCINOMA AS A NOVEL BIOMARKERS OF IMMUNOTHERAPY RESPONSE.

Chiara BRANDO¹, Lorena INCORVAIA², Daniele FANALE¹, Laura ALGERI¹, Alessandra DIMINO¹, Raimondo SCALIA¹, Annalisa BONASERA¹, Nadia BARRACO¹, Marco BONO¹, Valentina CALÒ¹, Daniela CANCELLIERE¹, Marta CASTIGLIA¹, Alessia FIORINO¹, Erika PEDONE¹, Alessandro PEREZ¹, Alessia PIVETTI¹, Antonio RUSSO¹ and Viviana BAZAN².

¹*Department of Surgical, Oncological and Oral Sciences, Section of Medical Oncology, University of Palermo, Palermo, Italy.* ²*Department of Biomedicine, Neuroscience and Advanced Diagnostics (BIND), Section of Medical Oncology, University of Palermo, Palermo, Italy.*

OXIDATIVE STRESS INDUCED BY THE NOVEL COMPOUND TRIBUTYL TIN(IV) FERULATE PROMOTES ER STRESS AND AUTOPHAGY IN COLON CANCER CELLS.

Adriana CELESIA^{1*}, Ornella MORANA^{2*}, Tiziana FIORE^{3,4}, Claudia PELLERITO^{3,4}, Marianna LAURICELLA¹, Antonella D'ANNEO², Daniela CARLISI¹, Anna DE BLASIO², Giuseppe CALVARUSO², Michela GIULIANO² and Sonia EMANUELE¹

¹Department of Biomedicine, Neurosciences and Advanced Diagnostics (BiND), University of Palermo, 90127 Palermo, Italy. ²Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), University of Palermo, 90127 Palermo, Italy. ³Department of Physics and Chemistry "Emilio Segrè" (DiFC), University of Palermo, Viale delle Scienze, Building 17, 90128 Palermo, Italy. ⁴Inter-University Consortium for Research on the Chemistry of Metal Ions in Biological Systems (C.I.R.C.M.S.B.), Piazza Umberto I, 1-70121 Bari, Italy.

APHAMAX® ATTENUATES INFLAMMATORY AND OXIDATIVE STRESS IN 2, 4-DINITROBENZENE SULFONIC ACID-INDUCED COLITIS IN RAT AMELIORATING INTESTINAL FUNCTIONALITY.

Adele CICIO¹, Maria Grazia ZIZZO^{1,2}, Gaetano CALDARA¹, Domenico NUZZO³, Marta DI CARLO³, Stefano SCOGLIO⁴, Rosa SERIO¹

¹Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), ²ATeN (Advanced Technologies Network) Center, University of Palermo, Viale delle Scienze, 90128 Palermo, Italy. ³Institute of Biomedicine and Molecular Immunology "Alberto Monroy" (IBIM - CNR), 90146 Palermo, Italy. ⁴Nutritherapy Research Center, 61029 Urbino, Italy.

POLYPHENOLS ANTIOXIDANT EFFECTS ON DIFFERENT CELL LINES.

Jionathan CLAUSI, Sabrina BURATTINI, Sara SALUCCI, Pietro GOBBI, Michela BATTISTELLI
Department of Biomolecular Sciences (DiSB), University of Urbino, PU, Italy

WHAT ARE THE MULTIGENIC FINGERPRINT HALLMARKS IN TRIPLE-NEGATIVE BREAST CANCER?

Alessia FIORINO¹, Lorena INCORVAIA², Daniele FANALE¹, Marco BONO¹, Nadia BARRACO¹, Chiara BRANDO¹, Valentina CALÒ¹, Daniela CANCELLIERE¹, Marta CASTIGLIA¹, Erika PEDONE¹, Alessandro PEREZ¹, Alessia PIVETTI¹, Antonio RUSSO¹ and Viviana BAZAN².

¹Department of Surgical, Oncological and Oral Sciences, Section of Medical Oncology, University of Palermo, 90127 Palermo, Italy. ²Department of Biomedicine, Neuroscience and Advanced Diagnostics (Bi.N.D.), Section of Medical Oncology, University of Palermo, 90127 Palermo, Italy.

ADIPOSE DERIVED STEM CELL POTENCY AND MCF7.

Giuseppe GARRONI¹, Sara CRUCIANI¹, Emanuela BELLU¹, Margherita MAIOLI¹

¹Department of Biomedical Sciences, University of Sassari, Viale San Pietro 43/B, 07100 Sassari, Italy.

DISSECTING THE ROLE OF IL-4 AND IL-13 USING A 3D MODEL OF NORMAL HUMAN SKIN: AN INNOVATIVE EXPERIMENTAL APPROACH.

Serena INDINO¹, Giulia LOMBARDO¹, Elia ROSI², Franz BARUFFALDI PREIS³, Elena DONETTI¹, Francesca PRIGNANO²,

¹Department of Biomedical Science for Health, Università degli Studi di Milano, Milan, Italy; ²Department of Health Sciences, Università degli Studi di Firenze, Florence, Italy; ³Plastic Surgery Unit, Ospedale Niguarda Ca' Granda, Milan, Italy.

A NOVEL HYPOTETICAL MECHANISM OF ERYTHROCYTE SENESCENCE?

Alessia MANCA¹, Ioannis TSAMESIDIS², Cristina D'AVINO¹, Antonella PANTALEO¹

¹ Department of Biomedical Science, University of Sassari; ² Department of Biomedical Science, School of Health, International Hellenic University, Greece.

THE IMPACT OF OXIDATIVE STRESS ON ANION EXCHANGE CAPABILITY OF BAND 3 PROTEIN.

Alessia REMIGANTE^{1,2}, Rossana MORABITO², Sara SPINELLI², Michael PUSCH¹, Silvia DOSSENA³, Angela MARINO²

¹ Biophysics Institute, National Research Council, Genoa, Italy. ² Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Italy. ³ Institute of Pharmacology and Toxicology, Paracelsus Medical University, Austria.

INTERNALIZATION OF ISOLATED RESPIRATION-COMPETENT MITOCHONDRIA AS THERAPEUTIC MODEL IN THE TREATMENT OF ACUTE KIDNEY INJURY.

Andrea ROSSI¹, Paolo PORPORATO¹, Benedetta BUSSOLATI¹

Department of Molecular Biotechnology and Health Sciences, Molecular Biotechnology Center (MBC) – Università degli studi di Torino – Turin, Italy.

CHEMICAL CHARACTERIZATION, RADICAL-SCAVENGING AND ANTIOXIDANT ACTIVITY OF FRUITS OF *DIOSPYROS DIGYNA* JACQ.

Graziella SERIO¹, Giuseppe MANNINO³, Cinzia Margherita BERTEA³, Carla GENTILE¹

¹Department of Biological, Chemical and Pharmaceutical Sciences and Technologies, University of Palermo, Viale delle Scienze Ed 16, 90128 Palermo (Italy); ²Department of Life Sciences and System Biology, University of Turin, Via Quarello 15/A, 10135 Turin (Italy).

REDOX NANOPARTICLES: THE ROLE OF ION DOPING IN HEMOCOMPATIBILITY.

Ioannis TSAMESIDIS^{1,2}, Dimitrios GKILIOPOULOS¹, Georgia POUROUTZIDOU¹, Konstantinos M. PARASKEVOPOULOS¹, Anna THEOCHARIDOU¹ and Eleana KONTONASAKI¹

¹Aristotle University of Thessaloniki, ²International Hellenic University.

INVITED LECTURE, ore 17.00-17.30

ENGINEERED BIOHYBRID CARDIAC PATCH IMPROVES ISCHEMIC VENTRICULAR WALL REMODELING ON A RAT MODEL

Antonio D'AMORE

Research Assistant Professor - University of Pittsburgh, Pittsburgh, PA, USA

Head of the Cardiac Tissue Engineering Program - RiMED Foundation, Palermo, Italy

ORE 17:30 – 18:00

Conclusioni del Congresso

Simposi satelliti

III Simposio di Biologia sperimentale applicata al mare e all'ambiente

Dedicato alla memoria di Stefan-Adrian Strungaru (1989 – 2021)

23 aprile 2021, ore 14:00 – 16:00

Caterina Faggio, Gian Luigi Mariottini, Concetta Maria Messina

Programma

INVITED LECTURE (CHAIR: CATERINA FAGGIO E CONCETTA MARIA MESSINA)
SAVING THE PHARMACY OF THE SEA.

Arnau Carreño and Josep Lloret

Ocean and Human Health Chair, University of Girona, Spain

ORAL COMMUNICATIONS (CHAIR: GIAN LUIGI MARIOTTINI)

EFFECTS OF MICROPLASTICS INGESTION ON DEVELOPMENT AND FEEDING BEHAVIOR IN BRINE SHRIMP (*ARTEMIA SALINA*).

Marco ALBANO¹, Giuseppe PANARELLO¹, Davide DI PAOLA¹, Serena SAVOCA¹, Sergio FAMULARI¹, Claudio D'IGLIO^{1,4}, Fabiano CAPPARUCCI¹, Nunziacarla SPANÒ², Gioele CAPILLO³

¹Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy. ²Department of Biomedical, Dental and Morphological and Functional Imaging University of Messina, Messina, Italy. ³Department of Veterinary Sciences, University of Messina, Italy. ⁴Institute of Biological Resources and Marine Biotechnologies (IRBIM-CNR), Messina, Italy.

ZEBRAFISH, DYSBIOSIS AND TOXICOLOGY EFFECTS.

Marilena BRIGLIA¹, Giuseppe PICCIONE¹, Rosaria LAURÀ¹, Antonino GERMANÀ¹ Caterina FAGGIO².

¹Department of Veterinary Sciences, University of Messina, 98122 Messina, Italy. ²Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, 98122 Messina, Italy.

OXIDATIVE STRESS AND LIPID METABOLISM RESPONSE IN *SPARUS AURATA* EXPOSED TO SUB-LETHAL DOSES MIXTURE OF EMERGING POLLUTANTS AND DRUGS.

Eleonora CURCURI¹, Marta GIUGA^{1,2,3}, Simona MANUGUERRA¹, Rosaria ARENA¹, Mario SPROVIERI³, Andrea SANTULLI^{1,3,4}

¹Dipartimento di Scienze della Terra e del Mare DiSTeM, Laboratorio di Biochimica Marina ed Ecotossicologia, Università degli Studi di Palermo, Via G. Barlotta 4, 91100 Trapani, Italy; ²Dipartimento di Scienze Biologiche, Geologiche e Ambientali, Sezione di Biologia Animale, Università di Catania, Via Androne 81, 95124, Catania, Italy; ³Istituto per lo studio degli impatti Antropici e Sostenibilità in ambiente marino (IAS), Consiglio Nazionale delle Ricerche, Capo Granitola, Trapani, Italy; ⁴Istituto di Biologia Marina, Consorzio Universitario della Provincia di Trapani, Via G. Barlotta 4, 91100 Trapani, Italy.

EFFECTS OF THE ENRICHED-ORGANIC DIETS COMPOSITION ON EUROPEAN SEA BASS (*DICENTRARCHUS LABRAX*) NEW TOOLS FOR FISH WELFARE EVALUATION IN AQUACULTURE.

Mariano DARA^{2,3} Pierluigi CARBONARA¹, Walter ZUPA¹, Isabella BITETTO¹, Sébastien ALFONSO¹, Irene VAZZANA⁴ and Matteo CAMMARATA^{2,3}

1 COISPA Technology and Research, Experimental Station for the Study of Sea Resources, 2 Department of Earth and Marine Sciences, University of Palermo, 3 National Interuniversity Consortium for Marine Sciences (CoNISMa), 4 Zooprofylactic institute of Sicily

FROM BY-PRODUCTS TO A FUNCTIONAL BIOMOLECULE: ASTAXANTHIN, A CAROTENOID WITH POTENTIAL IN HUMAN AND ANIMAL HEALTH AND NUTRITION.

Teresa GERVASI¹, Claudio GERVASI², Vito PELLIZZERI^{1,3}, Nicola CICERO¹

¹ Department of Biomedical and Dental Sciences and Morphofunctional Imaging, University of Messina, Messina, Italy; ² Department of Chemical, Biological, Pharmaceutical, and Environmental Sciences, University of Messina, Messina, Italy. ³ Misitano Stracuzzi S.p.A., Via Ghibellina 64, 98122 Messina, Italy.

METHYLMERCURY EFFECTS ON *MYTILUS GALLOPROVINCIALIS* HAEMOCYTES ACTIVITY.

Claudia LA CORTE¹, Mariano DARA¹, Daniela PARRINELLO¹, Matteo CAMMARATA¹, Maria Giovanna PARISI¹

¹ Marine Immunobiology Laboratory, Department of Earth and Marine Sciences, University of Palermo, Viale delle Scienze, Edificio 16, 90128 Palermo, Italy.

EFFECTS OF MIXTURES OF EMERGING POLLUTANTS AND DRUGS ON MODULATION OF BIOMARKERS RELATED TO TOXICITY, OXIDATIVE STRESS, AND CANCER.

Simona MANUGUERRA¹, Maria MORGHESE¹, Rosaria ARENA¹, Giuseppe RENDA¹, Concetta Maria MESSINA¹, Andrea SANTULLI^{1,2}

¹ Dipartimento di Scienze della Terra e del Mare DiSTeM, Laboratorio di Biochimica Marina ed Ecotossicologia, Università degli Studi di Palermo, Via G. Barlotta 4, 91100 Trapani, Italy;

² Istituto di Biologia Marina, Consorzio Universitario della Provincia di Trapani, Via G. Barlotta 4, 91100 Trapani, Italy.

OCCURRENCE OF MICROFIBERS IN FARMED GILTHEAD SEABREAM AND COMMON CARP AT DIFFERENT LIFE STAGES.

Serena SAVOCA¹, Gioele CAPILLO², Giovanna D'ANGELO³, Nunziacarla SPANO⁴, Davide DI PAOLA¹, Marco ALBANO¹, Kresimir MATANOVIC⁵, Emil GJURCEVIC⁵.

¹ Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Italy; ² Department of Veterinary Sciences, Polo Universitario dell'Annunziata, University of Messina, Italy; ³ Department of Mathematical and Computational Sciences, Physical Science and Earth Science, University of Messina, Italy; ⁴ Department of Biomedical, Dental and Morphological and Functional Imaging University of Messina, Italy; ⁵ Department for Biology and Pathology of Fish and Bees, Faculty of Veterinary Medicine, University of Zagreb, Croatia.

X Meeting del “Quantum Paradigms of Psychopathology” Group

25 aprile 2021, ore 17:00 – 20:00

Massimo Cocchi & Jacek Adam Tuszynski

Programma

“How can consciousness be measured and quantified?”

“The history of consciousness from Socrates, understood as the seat of the intellectual and moral qualities of man (the psyché), to the acquisitions of neuroscience, including D. Chalmers' hard problem concerning qualia, constitutes a fascinating track and, for many aspects, still enigmatic. There are countless attempts to integrate consciousness into a unitary ego and, conversely, the positions that consider this phenomenon to be illusory. If we then try to calibrate the concept in the psychiatric field, the question becomes even more problematic”

Introduction to the Theme

Massimo Cocchi & Jack Tuszynski

"Opening Address to QPP"

Prof. Michael Houghton, Nobel Prize in Physiology and Medicine 2020, University of Alberta

Keynote Talk (TBA)

Sir Roger Penrose, Nobel Prize in Physics 2020, University of Oxford

Chairmen of the Round Table

Ted Dinan & Jack Tuszynski

Speakers

Gustav Bernroider, Massimo Cocchi, David Chalmers, Travis Craddock, Fabio Gabrielli, Mansoor Malik, Paavo Pyykkänen, Johann Summhammer, Ursula Werneke & Jack Tuszynski

At the opening of the Round Table the Kary Mullis Prize will be presented to Prof. Rudolph Tanzi, Harvard University

Scientific Secretaries: Marco Cavaglia & Marco Agostino Deriu, Polytechnic of Turin

QPP Members: Gustav Bernroider, Neurosignaling Unit University of Salzburg, Austria; Peter Bruza, Professor of Information Technology Queensland University of Technology Australia;; Francesco Cappello, Anatomist, University of Palermo; Massimo Cocchi, President of QPP Italy, University of Bologna; David Chalmers, New York University; Travis Craddock, Assistant Professor, Psychology & Neuroscience, Computer Science and Clinical Immunology; Ted Dinan, Professor of Psychiatry University College Cork; Natale G. Frega, Professor of Food Sciences University of Ancona; Fabio Gabrielli, Professor of Philosophy of Relationship, School of Management, LUM University; Enrico Garlaschelli, Professor of Philosophy Theological Faculty of Northern Italy; Aldo Gerbino, President of Accademia delle Scienze Mediche di Palermo; Gordon Globus, Professor Emeritus of Psychiatry and Philosophy University of California Irvine; Giovanni Lercker, Professor of Food Sciences University of Bologna; Mansoor Malik, The Johns Hopkins University; Donald Mender, Founder, QPP's Scientific Program Committee; Paavo Pyykkänen, Professor of Theoretical Philosophy University of Skövde University of Helsinki; Roman Poznanski, Laboratory of Artificial Consciousness The Rockefeller University, New York City; Massimo Pregnolato, Associate Professor Pharmaceutical Chemistry University of Pavia; Mark Rasenick, Distinguished Professor of physiology & biophysics and psychiatry University of Chicago; Marcello Romeo, Head of Microbiota Unit, SIBS; Johann Summhammer, Professor, Institute of Atomic and Subatomic Physics, Technische Universität Wien; Lucio Tonello, Professor of bioengineering QPP Institute; Giovanna Traina, Professor, Department of Pharmaceutical Sciences University of Perugia; Jack Tuszynski, Professor of Physics University of Alberta, Canada, Politecnico di Torino; Giuseppe Vitiello, Professor of Theoretical Physics, University of Salerno; Ursula Werneke, Professor in psychiatry, Umeå University.

VIDEOPoster

Consultabili attraverso il sito del congresso e per tutta la durata dello stesso.

COMUNICAZIONI LIBERE

BEHAVIOURAL AND METABOLIC IMPLICATIONS IN TRIMETHYLAMINURIA: THE DUAL ROLE OF GUT MICROBIOTA.

Simona ALIBRANDI^{1,3}, Luigi DONATO^{1,2}, Concetta SCIMONE^{1,2}, Carmela RINALDI¹, Rosalia D'ANGELO¹, Antonina SIDOTI¹

¹Department of Biomedical and Dental Sciences and Morphofunctional Imaging, Division of Medical Biotechnologies and Preventive Medicine, University of Messina, Messina, Italy; ²Department of Biomolecular strategies, genetics, cutting-edge therapies, I.E.ME.S.T., Palermo, Italy; ³Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy.

EVALUATION OF GALECTIN-3 IN THE CROSS-TALK BETWEEN MUSCLE AND BONE.

Emanuela AMORE¹, Carla PALUMBO², Jessika BERTACCHINI¹

¹Department of Surgery, Medicine Dentistry and Morphological Sciences with Interest in Transplant, University of Modena and Reggio Emilia, Modena, Italy. ²Department of Biomedical, Metabolic Science and Neuroscience – Section of Human Morphology, University of Modena and Reggio Emilia, 41124, Modena, Italy.

EFFECTS OF SIMULATED MICROGRAVITY ON HUMAN PANCREATIC ADENOCARCINOMA (PDAC) MULTICELLULAR SPHEROIDS.

Valentina BONETTO¹, Marcello MANFREDI², Emilio MARENGO¹, Maria Angela MASINI¹

¹DiSIT, University of Eastern Piedmont, Alessandria, Italy. ²CAAD Center, Novara, Italy.

COMBINING TRANSLATION READTHROUGH INDUCING DRUGS AND NONSENSE MEDIATED DECAY PATHWAY INHIBITION TO THE CFTR RESCUE IN CYSTIC FIBROSIS CELL MODEL SYSTEM.

Roberta BONGIORNO¹, Laura LENTINI *Andrea PACE*¹ and Ivana *PIBIRI*¹.

¹Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche (STEBICEF), Università degli Studi di Palermo, Viale delle Scienze Ed. 16-17, 90128 Palermo, Italy.

BIOCHEMICAL RAMAN SPECTRAL SIGNATURE OF PLASMA LIPOPROTEINS.

Arianna BONIZZI¹, Alessandra RICCIARDI², Gabriele PIURI¹, Matteo DELLA PORTA¹, Serena MAZZUCHELLI¹, Marta TRUFFI², Marta SEVIERI¹, Raffaele ALLEVI¹, Fabio CORSI^{1,2}, Roberta CAZZOLA¹, Carlo MORASSO²

¹Department of Biomedical and Clinical Sciences “Luigi Sacco”, Università degli Studi di Milano, Milano, Italy. ²Istituti Clinici Scientifici Maugeri IRCCS, Pavia, Italy.

DEVELOPMENT OF A SCREENING STRATEGY FOR THE IDENTIFICATION OF NLRP3 SELECTIVE INHIBITORY COMPOUNDS.

Paola DINO¹, Marco BUSCETTA², Giovanni ZITO^{2,3}, Fabio BUCCHIERI¹, Chiara CIPOLLINA^{2,4}.

¹Dipartimento di Biomedicina Sperimentale, Neuroscienze e Diagnostica Avanzata, University of Palermo, via del Vespro 129, 90127 Palermo, Italy. ²Fondazione Ri.MED, via Bandiera 11, 90133 Palermo, Italy. ³current affiliation Research Department, IRCCS ISMETT (Istituto Mediterraneo per i Trapianti e le Terapie ad alta Specializzazione), 90127 Palermo, Italy. ⁴Istituto per la Ricerca e l'Innovazione Biomedica (IRIB), Consiglio Nazionale delle Ricerche (CNR), 90153 Palermo, Italy.

ANALYSIS OF EXPOSURE TO MULTIPLE AND EXTREME STRESS CONDITIONS ON A THREE-DIMENSIONAL HUMAN RESPIRATORY MUCOSA MODEL.

Giorgia INTILI¹, Fabio BUCCHIERI¹, Alessandro PITRUZZELLA¹, Stefano BURGIO¹, Olga Maria MANNA¹, Roberto MARCHESE², Federica SCADUTO², Alberto FUCARINO¹

¹*Experimental Biomedicine, Clinical Neuroscience and Advanced Diagnostic Department (Bi.N.D.), University of Palermo, Palermo, Italy.* ²*Interventional Pulmonology and Thoracic Surgery Department, La Maddalena Cancer Center, Palermo, Italy.*

MICROGRAVITY EFFECTS ON THE RESPIRATORY SYSTEM: OPTIMIZATION OF AN EX-VIVO RESPIRATORY MUCOSA CULTURE MODEL FOR THEIR EVALUATION.

Olga Maria MANNA¹, Alberto FUCARINO¹, Alessandro PITRUZZELLA^{1,2}, Domenico Michele MODICA¹, Stefano BURGIO¹, Giorgia INTILI¹, Fabio BUCCHIERI¹

¹*Experimental Biomedicine, Clinical Neuroscience and Advanced Diagnostic Department (Bi.N.D.), University of Palermo, Palermo, Italy.* ²*Consorzio Universitario di Caltanissetta, Caltanissetta, Italy.*

IN VITRO EVALUATION OF ANTIFUNGAL AND ANTIBIOFILM ACTIVITY OF CHOLINIUM BASED IONIC LIQUIDS AGAINST *CANDIDA SPP.*

Alessia MARCHETTA*, Mariapia POLISTENA, Ivana MORABITO, Sandra LO SCHIAVO, Clara URZI, Filomena DE LEO

Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale F. Stagno d'Alcontres, 31, 98166 Messina, Italy.

IMMUNO-ONCOLOGICAL TREATMENT OF NON-SMALL-CELL LUNG CANCER (NSCLC) IN ADVANCED STAGE WITH NIVOLUMAB.

Fabio VENTURELLA¹, Giulia CANCELLIERI², Marco GIAMMANCO³, Anastasia Valentina LIGA², Francesca MORTILLARO², **Irene MISTRETTA²**

¹*Biological, Chemical and Pharmaceutical Science and Technologies Department – University of Palermo;* ²*Surgical. Oncological and Stomatological Disciplines Department- University of Palermo;* ³*Graduated in Pharmacy, University of Palermo.*

DETECTION, ANALYSIS AND PROCESSING OF ACUTE ALCOHOL INTOXICATIONS COLLECTED AT EMERGENCY DEPARTMENT OF THE “GARIBALDI CENTRO” HOSPITAL IN CATANIA.

Fabio VENTURELLA¹, **Francesca MORTILLARO²**, Anastasia Valentina LIGA², Giulia Cancellieri², Debora DI SALVO².

¹*Biological, Chemical, and Pharmaceutical Science and Technologies Department, University of Palermo, Italy;* ²*Graduated in Pharmacy, University of Palermo, Italy.*

FISH ANALYSIS ON FFPE FOR DETECTION OF SINGLE AND DOUBLE TRISOMIES IN SPONTANEOUS ABORTION.

Manuela MOSCONI^{1,2}, Patrizia FIORIO³, Francesca BUFFELLI¹, Riccardo CARBONE^{1,2}, Ezio FULCHERI^{1,4}

¹*Fetal, Placental & Gynecologic Pathology Unit, Istituto Giannina Gaslini, Genoa;* ²*Dept. of Neurosciences, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINO GMI), University of Genoa;* ³*Human Genetics Unit, Istituto Giannina Gaslini, Genoa;* ⁴*Dept. of Integrated Diagnostic and Surgical Sciences (DISC), University of Genoa.*

MORPHOLOGICAL STUDY ON THE OVARY OF A DEHYDROEPIANDROSTERONE-INDUCED MODEL OF POLYCYSTIC OVARIAN SYNDROME IN MOUSE.

Maria Grazia PALMERINI¹, Carla TATONE¹, Giovanna DI EMIDIO¹, Guido MACCHIARELLI¹

¹*Dept. of Life, Health and Environmental Sciences, University of L'Aquila, L'Aquila, Italy.*

RESCUE OF LRBA GENE EXPRESSION IN PRIMARY HUMAN FIBROBLASTS CHARACTERISED BY NONSENSE MUTATION c. 5047 (C>T).

Riccardo PERRIERA¹, Federica CORRAO¹, Ivana PIBIRI¹, Andrea PACE¹ and Laura LENTINI¹.
¹*Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche (STEBICEF), Università degli Studi di Palermo, Viale delle Scienze Ed. 16-17, 90128 Palermo, Italy.*

MERTK SNPs AND CLINICAL FEATURES OF LIVER DISEASE.

Rosaria Maria PIPITONE¹, Rossella ZITO¹, Giulia LUPO¹, Stefania GRIMAUDO¹
¹*Department of Health Promotion, Mother and Child Care, Internal Medicine and MedicalSpecialties "G. D'Alessandro" - University of Palermo – Italy*

IN VITRO SENSITIVITY TO RADIOTHERAPY OF CANCER STEM CELLS PREDICTS THE EFFICACY OF TREATMENT IN VIVO.

Caterina PUGLISI¹, Raffaella GIUFFRIDA¹, Giuseppina BORZI², Salvatore ILLARI², Francesco Paolo CARONIA³, Paolo DI MATTIA⁴, Adriana ERAMO⁵, Giovanni SETTE⁵, Cristina COLAROSSO⁴, Alfio DI GRAZIA⁶, Stefano FORTE¹
¹ *IOM Ricerca, Viagrande, Italy;* ² *Rem Radioterapia, Viagrande, Italy;* ³ *ARNAS Civico, Palermo, Italy;* ⁴ *Mediterranean Institute of Oncology, Viagrande, Italy;* ⁵ *Istituto Superiore di Sanità, Dipartimento di Oncologia e Medicina Molecolare, Roma, Italy;* ⁶ *Fondazione IOM, Viagrande, Italy.*

COVID-19

MEDITERRANEAN DIET, PROBIOTICS AND SARS-CoV-2: COMPLEMENTARY STRATEGIES.

Andrea MAGLIONI
Independent Researcher

MICRO- E NANOVESICOLE IN BIOMEDICINA

ISOLATION, CHARACTERIZATION AND DETECTION OF EXTRACELLULAR VESICLES FROM IMMORTALIZED MURINE MYOBLASTS (C2C12) AND H292 CELLS.

Filippo GIAMBALVO¹, Martina SAUSA¹, Eleonora TROVATO¹, Rosario BARONE¹, Valentina DI FELICE¹
¹*Dipartimento di Biomedicina Neuroscienze e Diagnostica Avanzata, Università di Palermo, Palermo.*

CITRAVES™ REDUCES LOW DENSITY LIPOPROTEIN-CHOLESTEROL AND WAIST CIRCUMFERENCE IN HEALTHY SUBJECTS AFTER 12 WEEKS: A PROSPECTIVE OPEN-LABEL STUDY.

Dragana NIKOLIC¹, Stefania RAIMONDO¹, Alice CONIGLIARO¹, Gianluca GIAVARESI², Bruna LO SASSO³, Mauro MANNO⁴, Samuele RACCOSTA⁴, Roberto CITARRELLA⁵, Marcello CIACCIO³, Giuseppe MONTALTO⁵, Riccardo ALESSANDRO¹.
¹*Department of Biomedicine, Neuroscience and Advanced Diagnostics (Bi.N.D), Section of Biology and Genetics, University of Palermo;* ²*IRCSS Istituto Ortopedico Rizzoli, SC Scienze e Tecnologie Chirurgiche-SS Piattaforma Scienze Omiche per Ortopedia Personalizzata, Bologna;* ³*Department of Biomedicine, Neurosciences and Advanced Diagnostics, Institute of Clinical Biochemistry, Clinical Molecular Medicine and Laboratory Medicine, University of Palermo;* ⁴*Institute of Biophysics, National Research Council of Italy, Palermo;* ⁵*Department of Health Promotion Sciences Maternal and Infantile Care, Internal Medicine and Medical Specialties (PROMISE), University of Palermo.*

EXTRACELLULAR VESICLES IN THYROID CANCER: ASSESSING OF PREDICTIVE BIOMARKERS FOR THE EARLY DIAGNOSIS AND FOLLOW UP.

Radha SANTONOCITO¹, Giuseppa D'AMICO¹, Celeste CARUSO BAVISOTTO^{1,2}, Francesca RAPPA¹, Claudia CAMPANELLA¹, Francesco CAPPELLO^{1,2}

¹*Department of Biomedicine, Neurosciences and Advanced Diagnostics (Bi.N.D.), University of Palermo, Palermo, Italy;* ²*Euro-Mediterranean Institute of Science and Technology (IEMEST), Palermo, Italy.*

EXTRACELLULAR VESICLES FROM PLANT EXTRACT: ISOLATION AND CHARACTERIZATION. POTENTIAL USE IN BIOMEDICINE.

Giuseppe VERGILIO^{1,2}, Celeste CARUSO BAVISOTTO^{1,2}, Luisa TESORIERE³ Francesco CAPPELLO¹, Claudia CAMPANELLA¹

¹*Department of biomedicine, Neurosciences and Advanced Diagnostics (Bi.N.D.) University of Palermo, Palermo, Italy;* ²*Euro-Mediterranean Institute of Science and Technology (I.E.ME.S.T.), Palermo, Italy.* ³*Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), University of Palermo, Palermo, Italy*

NATURA E SALUTE NELL'AREA EURO-MEDITERRANEA

EFFECTS OF POLYSTYRENE NANOPLASTICS ON THE BRITTLE STAR *OPHIACTIS VIRENS*.

Alessandra BALZANO¹, Anna PISTOCCHI², Lavinia CASATI², Marco PAROLINI¹, Michela SUGNI¹, Camilla MOSSOTTO¹,

¹*Dipartimento di Scienze e Politiche Ambientali, Università degli Studi di Milano;*

ACUTE TOXICITY OF PROMETHAZINE HYDROCHLORIDE ON *ARTEMIA SALINA* NAUPLII.

Sara IGNOTO¹, Roberta PECORARO¹, Elena Maria SCALISI¹, Martina CONTINO¹ Giuseppina MESSINA¹, Maria Violetta BRUNDO¹

¹*Department of Biological, Geological and Environmental Sciences, University of Catania.*

EFFECTS OF THE ENVIRONMENT ACIDIFICATION: TARDIGRADE EXPOSURE TO INCREASING ACID CONCENTRATIONS.

Edoardo MASSA¹, Lorena REBECCHI¹, Roberto GUIDETTI¹

¹*Department of Life Sciences, University of Modena and Reggio Emilia, Italy.*

SIGNALS OF STRUCTURING FROM MITOCHONDRIAL DNA FOR *MULLUS SURMULETUS* IN THE MEDITERRANEAN SEA.

Marco NANIA¹, Alessandra RAFFA¹, Venera FERRITO¹, Anna Maria PAPPALARDO¹

¹*Università di Catania - Dipartimento di Scienze Biologiche, Geologiche e Ambientali - Sez. Biologia Animale – Via Androne, 81 95125 Catania, Italy*

CIRCULAR ECONOMY: CHARACTERIZATION OF COLLAGEN PEPTIDES FROM SEA URCHIN WASTE.

Chiara PORZIO¹, Giordana MARTINELLI¹, Stefania MARZORATI¹, Luca MELOTTI², Luisella VEROTTA¹, Francesco BONASORO¹, Marco PATRUNO², Michela SUGNI¹

¹*Department of Environmental Science and Policy, Università degli Studi di Milano, Via Celoria 2, 20133, Milano;* ²*Department of Comparative Medicine and Food Science, University of Padova, Viale dell'Università 16, 35020, Legnaro – Agripolis Padova*

ABSENCE OF LARVAL REGENERATION IN HIGHLY REGENERATIVE CRINOID *ANTEDON MEDITERRANEA*.

Giulia PRIA¹, Nicole GHEDA¹, Barbara CRESPI¹, Francesco BONASORO¹, Daniela CANDIA CARNEVALI¹, Alice BARBAGLIO², Michela SUGNI¹

¹ *Department of Environmental Science, University of Milan;* ² *Research Services Division – Grant Office Life Sciences*

ANTIMICROBIAL ACTIVITY FROM POLYPEPTIDE-RICH EXTRACTS OF THE SEAGRASS *POSIDONIA OCEANICA*.

Diletta PUNGINELLI¹, Mirella VAZZANA¹, Manuela MAURO¹, Valentina CATANIA¹, Vincenzo ARIZZA¹, Domenico SCHILLACI¹

¹ *Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), University of Palermo, Via Archirafi 18 – 90123 Palermo, Italy.*

NEUROSCIENZE

MECHANICAL STIMULI INDUCE PHENOTYPIC CHANGES IN PERIPHERAL NERVES RELATED WITH PAIN RELIEF.

Giacomo CARTA^{1,2}, Federica FREGAN^{1,2}, Benedetta Elena FORNASARI^{1,2}, Giulia RONCHI^{1,2}, Luisa MURATORI^{1,2}, Stefano GEUNA^{1,2} and Stefania Raimondo^{1,2}

¹ *Department of Clinical and Biological Sciences, University of Turin, Orbassano (To), 10043, Italy;*

² *Neuroscience Institute Cavalieri Ottolenghi (NICO), Orbassano (To), 10043, Italy.*

SOCIAL BEHAVIOR AND VASOPRESSIN SYSTEM ARE ALTERED BY CHRONIC EXPOSURE TO BISPHENOL A IN PREGNANT FEMALE MICE.

Brigitta BONALDO^{1,2}, **Antonino CASILE**², Martina BETTARELLI¹, Stefano GOTTI^{1,2}, Giancarlo PANZICA^{1,2}, Marilena MARRAUDINO^{1,2}

1 Department of Neuroscience “Rita Levi-Montalcini”, Via Cherasco 15, 10126-Turin (TO), Italy. 2 Neuroscience Institute Cavalieri Ottolenghi (NICO), Regione Gonzole, 10-10043 Orbassano (TO), University of Turin, Turin, Italy.

RHEUMATOID ARTHRITIS INDUCED BY INTRA-ARTICULAR INJECTION OF FREUND’S ADJUVANT ENHANCES THE EXPRESSION OF VARIOUS HSPS IN SENSORY NEURONS AND GLIAL CELLS IN THE DORSAL HORN OF THE SPINAL CORD.

Malak FOUANI¹, Giuseppe Donato MANGANO¹, Nada LAWAND^{2,3}, Angelo LEONE¹, Rosario BARONE¹

¹ *Department of Biomedicine, Neuroscience and Advanced Diagnostics, Institute of Human Anatomy and Histology, University of Palermo, Palermo, Italy.* ² *Department of Anatomy, Cell Biology and Physiological Sciences, Faculty of Medicine, American University of Beirut, Beirut, Lebanon.*

³ *Department of Neurology, Faculty of Medicine, American University of Beirut, Beirut, Lebanon.*

IMAGING THE DEVELOPING AUDITORY CORTEX IN MOUSE.

Chiara LA ROSA^{1,2}, Paolo PERETTO^{1,2}, Tommaso FELLIN³, Serena BOVETTI^{1,2}

1 Department of Life Sciences and Systems Biology, University of Torino, Torino, Italy; *2 Neuroscience Institute Cavalieri Ottolenghi, University of Torino, Orbassano, Italy;* *3 Optical Approaches to Brain Function Laboratory, Istituto Italiano di Tecnologia, Genova, Italy.*

MODULATION OF FORMYL PEPTIDE RECEPTOR 1 INDUCED BY RESVERATROL IN AN LPS INDUCED NEUROINFLAMMATORY ANIMAL MODEL.

Chiara PORRO¹, Rosa CALVELLO², Antonia CIANCIULLI², Piergianni MODA³, Francesco DE NUCCIO⁴, Giuseppe NICOLARDI⁴, Laura GIANNOTTI⁴, Dario Domenico LOFRUMENTO⁴ and Maria Antonietta PANARO²

¹*Department of Clinical and Experimental Medicine, University of Foggia, Foggia, Italy.*

²*Department of Biosciences, Biotechnologies and Biopharmaceutics, University of Bari, Bari, Italy.*

³*Nuclear Medicine Department, SS. Annunziata Hospital, Taranto, Italy.* ⁴*Department of Biological and Environmental Sciences and Technologies, Section of Human Anatomy, University of Salento, Lecce, Italy.*

MUSCULAR BIOPSY EXAMINATION AND IN SILICO ANALYSIS OF A NOVEL GENETIC VARIANT OF CCT5 RELATED TO MOTOR NEUROPATHY: A NOVEL APPROACH TO STUDY INHERITED NEUROMUSCULAR DISEASES.

Federica SCALIA,^{1,2} Vincenzo ANTONA,³ Fabrizio LO CELSO,^{4,5} Maria VADALÀ,^{1,2} Alessandra Maria VITALE,^{1,2} Donato MANGANO,¹ Antonella MARINO GAMMAZZA,^{1,2} Rosario BARONE,^{1,2} Francesca RAPPÀ,¹ Domenico AMATO,⁷ Giusy SENTIERO,^{1,2} Giosuè LO BOSCO,^{2,7} Giampaolo BARONE,⁸ Everly CONWAY DE MACARIO,⁶ Alberto J. L. MACARIO,^{2,6} Mario GIUFFRÈ,³ Francesco CAPPELLO^{1,2}

¹*Department of Biomedicine, Neuroscience and Advanced Diagnostics (BIND), University of Palermo, 90127 Palermo, Italy.* ²*Euro-Mediterranean Institute of Science and Technology (IEMEST), 90139 Palermo, Italy.* ³*Department of Health Promotion, Mother and Child Care, Internal Medicine and Medical Specialties, University of Palermo, 90127 Palermo, Italy.* ⁴*Department of Physics and Chemistry - Emilio Segrè, University of Palermo, 90128 Palermo, Italy.* ⁵*Ionic Liquids Laboratory, Institute of structure of matter, Italian National Research Council (ISM-CNR), 00133 Rome, Italy.*

⁶*Department of Microbiology and Immunology, School of Medicine, University of Maryland at Baltimore-Institute of Marine and Environmental Technology (IMET), Baltimore, MD21202, USA.* ⁷*Department of Mathematics and Computer Science, University of Palermo, 90123 Palermo, Italy.* ⁸*Department of Biological, Chemical and Pharmaceutical Sciences and Technologies, University of Palermo, 90123 Palermo, Italy.*

⁷*Department of Mathematics and Computer Science, University of Palermo, 90123 Palermo, Italy.* ⁸*Department of Biological, Chemical and Pharmaceutical Sciences and Technologies, University of Palermo, 90123 Palermo, Italy.*

ESTROGENS INHIBIT A β -MEDIATED PHF-LIKE CONFORMATION OF TAU THROUGH ANTIOXIDANT ACTIVITY AND miRNA-218 REGULATION IN hTAU MICE.

Michela GUGLIELMOTTO^{1,2}, Giusi MANASSERO^{1,2}, **Valeria VASCIAVEO**^{1,2}, Marika VENEZIA², Massimo TABATON³, Elena TAMAGNO^{1,2}

¹*Department of Neuroscience, University of Turin, Italy;* ²*Neuroscience Institute Cavalieri Ottolenghi, Foundation (NICO), University of Turin, Italy;* ²*Affiliazione;* ²*Unit of Geriatric Medicine, Department of Internal Medicine and Medical Specialties (DIMI), University of Genova, Genova, Italy.*

HEREDITARY SPASTIC PARAPLEGIA AS A NOVEL GENETIC NEURO-CHAPERONOPATHY.

Alessandra Maria VITALE^{1,2}, Everly CONWAY DE MACARIO^{2,3}, Riccardo ALESSANDRO¹, Francesco CAPPELLO^{1,2}, Alberto JL MACARIO^{2,3}, Antonella MARINO GAMMAZZA¹

¹*Department of Biomedicine, Neuroscience and Advanced Diagnostics, Section of Human Anatomy, University of Palermo, Palermo, Italy;* ²*Euro-Mediterranean Institute of Science and Technology (IEMEST), Palermo, Italy;* ³*Department of Microbiology and Immunology, School of Medicine, University of Maryland at Baltimore-Institute of Marine and Environmental Technology (IMET), Baltimore, MD, United States.*

SCIENZA E MEDICINA DELLO SPORT E DELL'ESERCIZIO FISICO

INFLUENCE OF THE FELDENKRAIS METHOD ON SELF-PERCEPTION OF ANXIETY, DEPRESSION AND FATIGUE IN FIBROMYALGIA PATIENTS: PRELIMINARY RESULTS.

Marco MIRABELLA¹, Marianna BELLAFFIORE¹, Giorgio MANDALA², Valentina LA MANTIA², **Caterina FORTE**³

¹University of Palermo, Palermo, Italy; ²Ospedale Fatebenefratelli Buccheri, Palermo, Italy; ³Studio Forte Feldenkrais, Palermo, Italy.

THE IMPACT OF COVID-19 LOCKDOWN ON PHYSICAL ACTIVITY PRACTICE AND SEDENTARY BEHAVIORS IN YOUNG SICILIAN POPULATION.

Valerio GIUSTINO¹, Anna Maria PARROCO¹, Antonio GENNARO², Giuseppe MUSUMECI³, Antonio PALMA¹ and Giuseppe BATTAGLIA¹

¹Department of Psychology, Educational Science and Human Movement, University of Palermo; ²Regional Sports School of CONI Sicilia, Palermo; ³Department of Biomedical and Biotechnological Sciences, Anatomy, Histology and Movement Sciences Section, School of Medicine, University of Catania.

INDUCTION OF ARTICULAR CARTILAGE REGENERATION BY A CELL-FREE COLLAGEN TYPE I-BASED SCAFFOLD.

Giovanni LAURETTA¹ and Giuseppe MUSUMECI^{1,2,3}.

¹ Department of Biomedical and Biotechnological Sciences, Anatomy, Histology and Movement Sciences Section, School of Medicine, University of Catania, 95123 Catania, Italy; ² Research Center on Motor Activities (CRAM), University of Catania, 95123 Catania, Italy; ³ Department of Biology, Sbarro Institute for Cancer Research and Molecular Medicine, College of Science and Technology, Temple University, Philadelphia, PA 19122, USA.

THE EFFECT OF EXERCISE TRAINING ON CACHECTIC TUMOR-BEARING MICE.

Giuseppe Donato MANGANO¹, Giulio SPINOSO¹, Leonardo Luca BAVUSO¹, Valentina DI FELICE¹, Rosario BARONE¹

¹Department of Biomedicine, Neuroscience and Advanced Diagnostics, Institute of Human Anatomy and Histology, University of Palermo, Palermo, Italy.

COMPUTATIONAL MODELLING OF HMSCS/SCAFFOLD CONSTRUCT ADAPTATIONS IN RESPONSE TO MECHANICALLY INDUCED CHONDROGENESIS.

Silvia RAVALLI¹, Giuseppe MUSUMECI^{1,2,3}

¹Department of Biomedical and Biotechnological Sciences, Human Anatomy and Histology Section School of Medicine, University of Catania, Catania, Italy; ²Research Center on Motor Activities (CRAM), University of Catania, Catania, Italy; ³Department of Biology, Sbarro Institute for Cancer Research and Molecular Medicine, College of Science and Technology, Temple University, Philadelphia, PA 19122, USA.

BIOMECHANICS CHANGES IN NON-PROFESSIONAL RUNNERS THROUGH STEP FREQUENCY AND METRONOME TRAINING.

Federico ROGGIO¹, Giuseppe MUSUMECI^{2,3,4}

¹ Department of Psychology, Educational Science and Human Movement, University of Palermo, Via Giovanni Pascoli 6, 90144 Palermo, Italy; ² Department of Biomedical and Biotechnological Sciences, Human Anatomy and Histology Section, School of Medicine, University of Catania, Via S. Sofia 87, 95123 Catania, Italy; ³ Research Center on Motor Activities (CRAM), University of Catania, 95123 Catania, Italy; ⁴ Department of Biology, College of Science and Technology, Temple University, Philadelphia, PA 19122, USA.

RAPID WEIGHT LOSS INDUCES MOOD STATE OSCILLATIONS IN MALE JUDOKAS.

Roberto ROKLICER¹, Nemanja LAKICEVIC², Ambra GENTILE², Tatjana TRIVIC¹, Antonino BIANCO², Patrik DRID¹

¹Faculty of Sport and Physical Education, University of Novi Sad, Novi Sad, Serbia. ²Sport and Exercise Sciences Research Unit, University of Palermo, Palermo, Italy.

ANALYSIS ON THE ROLE OF AEROBIC EXERCISE IN DIFFERENT TYPES OF DIABETES MELLITUS.

Dario SAGUTO¹, Vincenzo CANALELLA², Marta ZANGHÌ³, Giovanni TOMASELLO¹

¹Institute of Human Anatomy and Histology, Department of Biomedicine, Neurosciences and Advanced Diagnostics, University of Palermo, Palermo, Italy; ²School of Medicine and Surgery, University of Palermo, Palermo, Italy. ³Research Center on Motor Activities (CRAM), University of Catania, Catania, Italy.

IS HYPOXIA-INDUCIBLE FACTOR (HIF-1) ALPHA INVOLVED IN TARAVANA SYNDROME?

Nicola SPONSIELLO¹, Danilo CIALONI², Alessandra AMATO³, Sara BALDASSANO⁴, **Patrizia PROIA**³

¹Apnea Academy Research, Padova Italy ²DAN Europe Research Division, Roseto degli Abruzzi, Italy ³Department of Psychological, Pedagogical and Educational Sciences, Sport and Exercise Sciences Research Unit, University of Palermo, ⁴Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), University of Palermo, Italy.

STRESS CELLULARE

QUANTITATIVE PATTERNS OF THE CHAPERONES HSP27 AND HSP60 IN TUMORS OF THE HUMAN SUBMANDIBULAR SALIVARY GLAND: DIFFERENCES WITH NORMAL TISSUE AND PATHOGENIC IMPLICATIONS.

Charbel A. BASSET^{1*}, Francesca RAPPA^{1*}, Vincenzo Luca LENTINI², Rosario BARONE¹, Alessandro PITRUZZELLA^{1,3,4}, Elettra UNTI⁵, Francesco CAPPELLO^{1,3,6}, Everly CONWAY DE MACARIO^{3,7}, Alberto J. L. MACARIO^{3,7}, Angelo LEONE¹

¹Department of Biomedicine, Neuroscience and Advanced Diagnostics, Institute of Human Anatomy and Histology, University of Palermo, Palermo, Italy. ²Unit of Pathology, Ospedali Riuniti "Villa Sofia-Cervello", Palermo, Italy. ³Euro-Mediterranean Institute of Science and Technology, Palermo, Italy. ⁴Consorzio Universitario di Caltanissetta, University of Palermo, Caltanissetta, Italy. ⁵Anatomopathology Unit, Arnas Civico Di Cristina Benfratelli Hospital, Palermo, Italy. ⁶Department of Biology, College of Science and Technology, Temple University, Philadelphia, PA, USA. ⁷Department of Microbiology and Immunology, School of Medicine, University of Maryland at Baltimore-Institute of Marine and Environmental Technology, Baltimore, MD, USA.

HSP60 QUANTIFICATION IN GASTRIC MUCOSA SHOWS DIFFERENCES BETWEEN PATHOLOGIES WITH VARIOUS DEGREES OF PROLIFERATION AND MALIGNANCY GRADE AND CAN BE A DECIDING CRITERION FOR DIFFERENTIAL DIAGNOSIS.

Stefano BURGIO¹, Alessandro PITRUZZELLA^{1,2,3}, Pietro LO PRESTI¹, Sabrina INGRAO⁴, Alberto FUCARINO¹, Fabio BUCCHIERI¹, Daniela CABIBI⁴, Francesco CAPPELLO^{1,2}, Everly CONWAY DE MACARIO⁵, Alberto J. L. MACARIO^{2,5}, Francesca RAPPA¹.

¹Department of Biomedicine, Neuroscience and Advanced Diagnostics -University of Palermo, Italy; ²Euro-Mediterranean Institute of Science and Technology, Palermo, Italy; ³University Consortium of Caltanissetta, Caltanissetta, Italy; ⁴Department of Sciences for the Promotion of Health and Mother and Child Care, University of Palermo, Italy; ⁵Department of Microbiology and Immunology, School of Medicine, University of Maryland at Baltimore-Institute of Marine and Environmental Technology, Baltimore, MD 21202, USA.

EVALUATION OF THE PROERYPTOTIC ACTIVITY OF MONOSODIUM GLUTAMATE AT NUTRITIONALLY RELEVANT CONCENTRATIONS.

Rebecca CIANI¹, Alessandro ATTANZIO¹, Ignazio RESTIVO¹, Luisa TESORIERE¹, Mario ALLEGRA¹

¹*Università degli Studi di Palermo, Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche – Via Archirafi 28 – 90123 - Palermo.*

SICILIAN MANGO PEEL INDUCES CELLULAR STRESS ACCOMPANIED TO MITOCHONDRIAL DYSFUNCTION IN COLON CANCER CELLS.

Valentina LO GALBO¹, Marianna LAURICELLA², Michela GIULIANO¹, Giuseppe CALVARUSO¹, Giovanni PRATELLI², Anna DE BLASIO¹, Sonia EMANUELE², Daniela CARLISI², Antonella D'ANNEO¹

¹*Department of Biological, Chemical and Pharmaceutical Sciences and Technologies, University of Palermo, Palermo, Italy.* ²*Department of Biomedicine, Neurosciences and Advanced Diagnostics, University of Palermo, Italy.*

BIOACTIVE TRITERPENES OF *PROTIUM HEPTAPHYLLUM* GUM RESIN EXTRACT DISPLAYED CHOLESTEROL-LOWERING POTENTIAL.

Giuseppe MANNINO¹, Piera IOVINO³, Antonino LAURIA¹, Tullio GENOVA², Alberto ASTEGGIANO^{3,4}, Monica NOTARBARTOLO¹, Alessandra PORCU⁵, Graziella SERIO¹, Giorgia CHINIGÒ², Andrea OCCHIPINTI⁵, Andrea CAPUZZO⁵, Claudio MEDANA⁴, Luca MUNARON², Carla GENTILE^{1,*}

¹*Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), University of Palermo, Viale delle Scienze, 90128 Palermo, Italy.* ²*Department of Life Sciences and Systems Biology, University of Turin, Via Accademia Albertina 13, Turin 10123, Italy.* ³*Biosfered s.r.l., Via Paolo Veronese 202, Turin 10148, Italy.* ⁴*Department of Molecular Biotechnology and Health Sciences, University of Torino, Via Pietro Giuria 5, 10125 Torino, Italy.* ⁵*Abel Nutraceuticals s.r.l. Via Paolo Veronese 202, Turin 10148, Italy*

OPUNTIA FICUS INDICA METHANOLIC FRUIT EXTRACT COUNTERACTS OXIDIZED LDL-MEDIATED HUMAN ENDOTHELIAL CELL DYSFUNCTION THROUGH THE INHIBITION OF NF-KB ACTIVATION.

Alessandro MASSARO¹, Alessandro ATTANZIO¹, Anna FRAZZITTA¹, Luisa TESORIERE¹, Mario ALLEGRA¹

¹*Università degli Studi di Palermo, Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche – Via Archirafi 28 – 90123 - Palermo.*

EFFECTS OF INDICAXANTHIN ON HUMAN MOTOR CORTICAL EXCITABILITY AND PLASTICITY.

Bernardo PUCCIO*¹, Rosaria RUGGIRELLO*¹, Giuseppe GIGLIA¹, Mario ALLEGRA², Pierangelo SARDO¹, Giuseppe FERRARO¹, Giuditta GAMBINO¹

¹*Department of Biomedicine, Neuroscience and Advanced Diagnostics - BIND, Section of Human Physiology (University of Palermo);* ²*Department of Biological, Chemical and Pharmaceutical Sciences and Technologies - STEBICEF (University of Palermo).*

HYPOXIA INDUCED MIR-675 CONTROLS CELL SURVIVAL BY MODULATING APOPTOSIS AND AUTOPHAGY.

Chiara ZICHITTELLA¹, Maria Magdalena BARRECA¹, Chiara CORRADO¹, Aurora CORDARO¹, Riccardo ALESSANDRO¹, Sonia EMANUELE¹, Alice CONIGLIARO¹.

¹*Department of Biomedicine, Neuroscience and Advanced Diagnostics (Bi.N.D.), Section of Biology and Genetics, University of Palermo, 90133 Palermo, Italy.*

TERZO SIMPOSIO DI BIOLOGIA SPERIMENTALE APPLICATA AL MARE E ALL'AMBIENTE

CHEMICAL COMPOSITION DETERMINATION OF MARINE SEDIMENT BY NEAR INFRARED SPECTROSCOPY (NIRS) TO MONITOR AQUACULTURE ENVIRONMENTAL EFFECT.

Giulia DI FRANCO¹, Rosaria ARENA¹, Eleonora CURCURACI¹, Giuseppe CATALANO², Giuseppe RENDA¹, Concetta M. MESSINA¹, Andrea SANTULLI^{1,3}

¹Dipartimento di Scienze della Terra e del Mare, Laboratorio di Biochimica Marina ed Ecotossicologia, Università di Palermo, Via G. Barlotta 4, Trapani, Italy; ²Geonautics s.r.l. Via N. Paganini 9, 92100 (AG), Italy; ³Istituto di Biologia Marina, Consorzio Universitario della Provincia di Trapani, Via G. Barlotta 4, Trapani, Italy.

A SCANNING ELECTRON MICROSCOPY PROTOCOL FOR THE STUDY OF MARINE MICROPLASTICS.

Davide DI PAOLA¹, Serena SAVOCA¹, Teresa BOTTARI², Monique MANCUSO², Nunziacarla SPANO³, Gioele CAPILLO⁴, Jessica ABBATE⁴, Giovanni LANTERI⁴

¹Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Italy; ²Institute for Marine Biological Resources and Biotechnology (IRBIM), National Research Council (CNR), Section of Messina, Italy, Stazione Zoologica Anton Dohrn, Department of Integrative Marine Ecology, Centro Interdipartimentale della Sicilia, Messina, Italy; ³Department of Biomedical, Dental and Morphological and Functional Imaging, University of Messina, Italy; ⁴Department of Veterinary Sciences, University of Messina, Italy.

NEW DATA ON THE DIET AND FEEDING HABITS OF THE BLACKMOUTH CATSHARK, *GALEUS MELASTOMUS* RAFINESQUE, 1810 FROM THE SOUTHERN TYRRHENIAN SEA.

Claudio D'IGLIO^{1,2}, Gioele CAPILLO³, Paola RINELLI², Dario DI FRESCO¹, Serena SAVOCA¹, Nunziacarla SPANÒ⁴, Francesco TIRALONGO⁵

¹Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale F. Stagno d'Alcontres 31, 98166, Messina, Italy, ²Institute of Biological Resources and Marine Biotechnologies (IRBIM-CNR), Spianata San Raineri, 86 – 98122 Messina (ME), Italy, ³Department of Veterinary Sciences, University of Messina, Viale dell'Annunziata, I-98168, Messina, Italy, ⁴Department of Biomedical, Dental and Morphological and Functional Imaging, University of Messina, Via Consolare Valeria, Messina, Italy, ⁵Department of Biological, Geological and Environmental Sciences, University of Catania, Via Androne 81, 95124 Catania, Italy.

NEW INSIGHTS INTO OTOLITHS ECOMORPHOLOGY OF TWO CONGENERIC SEABREAMS SPECIES, *PAGELLUS ERYTHRINUS* (LINNAEUS, 1758) AND *PAGELLUS BOGARAVEO* (BRÜNNICH, 1768).

Sergio FAMULARI¹, Claudio D'IGLIO^{1,3}, Giovanni LANTERI², Paola RINELLI³, Jessica ABBATE², Nunziacarla SPANÒ⁴, Serena SAVOCA¹, Gioele CAPILLO²

¹Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale F. Stagno d'Alcontres 31, 98166, Messina, Italy, ²Department of Veterinary Sciences, University of Messina, Viale dell'Annunziata, I-98168, Messina, Italy, ³Institute of Biological Resources and Marine Biotechnologies (IRBIM-CNR), Spianata San Raineri, 86 – 98122 Messina (ME), Italy, ⁴Department of Biomedical, Dental and Morphological and Functional Imaging, University of Messina, Via Consolare Valeria, Messina, Italy

CONTRIBUTION OF THE PROCESSING TECHNOLOGIES TO THE INCREASE OF ENVIRONMENTAL AND ECONOMIC SUSTAINABILITY OF THE FISHERY VALUE-CHAIN: EFFECTS OF AN OZONIZED SLURRY ICE SYSTEM ON SHELF LIFE OF *SARDINA PILCHARDUS* AND *ENGRAULIS ENCRASICOLUS*.

Giovanna FICANO¹, Giusy CARLINO¹, Santina BRANCALEONE¹, Laura LA BARBERA², Rosaria ARENA¹, Concetta Maria MESSINA¹, Andrea SANTULLI^{1,2}

¹*Università degli Studi di Palermo, Dipartimento di Scienze della Terra e del Mare, Laboratorio di Biochimica Marina ed Ecotossicologia, via G. Barlotta 4, 91100 Trapani, Italy.* ²*Istituto di Biologia Marina, Consorzio Universitario della Provincia di Trapani, via G. Barlotta 4, 91100 Trapani, Italy.*

SEA SALT: INNOVATIVE TECHNOLOGIES FOR TRACEABILITY AND SECURITY – INDUSTRIAL APPLICATIONS.

Eleonora FIORAVANTI¹, Simona MANUGUERRA¹, Giuseppe RENDA¹, Laura La BARBERA¹, Eleonora CURCURACI¹, Concetta Maria MESSINA¹, Andrea SANTULLI^{1,2}

¹*Laboratorio di Biochimica Marina ed Ecotossicologia, Dipartimento di Scienze della terra e del Mare DiSTeM, Università degli Studi di Palermo, Trapani, Italy;* ²*Istituto di Biologia marina, Consorzio Universitario della Provincia di Trapani, Trapani, Italy.*

THE EFFECT OF TEMPERATURE CHANGES ON ARM REGENERATION IN THE BRITTLE STAR *OPHIACTIS VIRENS* (ECHINODERMATA: OPHIUROIDEA).

Camilla MOSSOTTO¹, Marco DEFRANCESCHI¹, Francesco BONASORO¹, Cinzia FERRARIO¹

¹*Università degli studi di Milano, Dipartimento di Scienze e Politiche ambientali.*

PRELIMINARY STUDIES ON THE EFFECT OF THIACLOPRID ON *MYTILUS GALLOPROVINCIALIS*

Maria PAGANO¹, Alzbeta STARA², Valbona ALIKO³, Caterina FAGGIO¹

¹*University of Messina, Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, Italy;* ²*University of South Bohemia in Ceske Budejovice, Faculty of Fisheries and Protection of Waters, South Bohemian Research Center of Aquaculture and Biodiversity of Hydrocenoses, Research Institute of Fish Culture and Hydrobiology, Vodňany, Czech Republic;* ³*University of Tirana, Faculty of Natural Sciences, Department of Biology, Tirana, Albania.*

DIET SHIFT AND FEEDING HABITS OF THE EUROPEAN HAKE (*MERLUCCIOUS MERLUCCIOUS*, LINNAEUS, 1758) IN THE CENTRAL MEDITERRANEAN SEA

Giuseppe PANARELLO¹, Claudio D'IGLIO^{1,2}, Daniela GIORDANO², Anna PERDICHIZZI², Marco ALBANO¹, Nunziacarla SPANO³, Serena SAVOCA¹

¹*Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Viale Ferdinando Stagno D'Alcontres 31, 98166 Messina, Italy;* ²*Institute of Biological Resources and Marine Biotechnologies (IRBIM-CNR), Spianata San Raineri, 86 – 98122 Messina (ME), Italy;* ³ *Department of Biomedical, Dental and Morphological and Functional Imaging, University of Messina, Via Consolare Valeria, Messina, Italy*

SEPARATION OF LARGE VOLUME *NANNOCHLOROPSIS* SP. CULTURES BY TUBULAR-BOWL CONTINUOUS CENTRIFUGE.

Giuseppe RENDA¹, Eleonora CURCURACI¹, Vito AMATO², Laura LA BARBERA³, Concetta M. MESSINA¹, Andrea SANTULLI^{1,3}

¹ *Dipartimento di Scienze della Terra e del Mare DiSTeM, Laboratorio di Biochimica Marina ed Ecotossicologia, Università degli Studi di Palermo, Via G. Barlotta 4, 91100 Trapani, Italy;* ² *L'Avannotteria Società Agricola S.r.l., C/da Triglia Scaletta, 91020 Petrosino (TP), Italy;* ³ *Istituto di Biologia Marina, Consorzio Universitario della Provincia di Trapani, Via G. Barlotta 4, 91100 Trapani, Italy.*