

# Posters

Friday 29<sup>th</sup> November 2019

## Session 1

## Biotechnology of Plants &amp; Microorganisms

- 19** **In vitro study of *Phaseolus vulgaris* circadian core clock elements**  
Angeliki Galeou, Vasilios Tomaropoulos and Anastasia Prombona\*  
*Institute of Biosciences and Applications, NCSR 'Demokritos', 15341 Agia Paraskevi, Greece*  
\*e-mail: prombona@bio.demokritos.gr
- 34** **The metabolic and genomic basis of *Rhodotorula glutinis* olive mill wastewater valorization**  
Jonas Peterle<sup>1</sup>, Kristaps Bērziņš<sup>2</sup>, Agris Pentjušs<sup>2</sup>, Alper Karakaya<sup>3</sup>, Serpil Takaç<sup>4</sup>, Egils Stalidzāns<sup>2</sup>, Friedrich W. Herberg<sup>1</sup>, Ioannis V. Pavlidis<sup>5\*</sup>  
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<sup>2</sup> Institute of Microbiology and Biotechnology, University of Latvia, Riga, Latvia  
<sup>3</sup> Duzen Biological Sciences Research, Development and Production Ink., Ankara, Turkey  
<sup>4</sup> Department of Chemical Engineering, Ankara University, Ankara, Turkey  
<sup>5</sup> Department of Chemistry, University of Crete, Heraklion, Greece.  
\*e-mail: ipavlidis@uoc.gr
- 90** **Transcriptome profile of tomato seedlings infected by indigenous bacterial pathogen *Clavibacter michiganensis* subsp. *michiganensis* strains**  
Dikran Tsitsekian<sup>1</sup>, Gerasimos Daras<sup>1</sup>, Dimitris Templalexis<sup>1</sup>, Dimitris Malliarakis<sup>2</sup>, Dimitris Goumas<sup>2</sup>, Theologos Koufakis<sup>3</sup>, Stamatis Rigas<sup>1\*</sup>, Polydefkis Hatzopoulos<sup>1\*</sup>  
<sup>1</sup> Department of Biotechnology, Agricultural University of Athens, Athens, Greece  
<sup>2</sup> Department of Agriculture, Hellenic Mediterranean University, Heraklion, Greece, 3 AGRIS S.A., Imathia Horticulture Centre, Imathia, Greece  
\*e-mail: SR: srigas@aua.gr; PH: phat@aua.gr
- 113** **Transcriptome and Proteome profiling of courgette (*Cucurbita pepo*) leaves infected by *Podosphaera xanthii* and treated with *Reynoutria sachalinensis* plant extract**  
Nikolaos Vakirlis<sup>1</sup>, Manousos Makridakis<sup>2</sup>, Aikaterini Termentzi<sup>3</sup>, Anna Mantsiou<sup>2</sup>, Theoni Margaritopoulou<sup>1</sup>, Jerome Zoidakis<sup>2</sup>, Emilia Markellou<sup>1</sup>, Dimosthenis Kizis<sup>1\*</sup>  
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\*e-mail: d.kizis@bpi.gr
- 138** **Isolation and molecular characterization of a novel bacteriophage against *Pseudomonas syringae***  
Paraskevopoulou Eleni Georgia<sup>1</sup>, Skliros Dimitrios<sup>1</sup>, Gkizi Danaï<sup>2</sup>, Goumas E. Dimitrios<sup>3</sup>, Tjamos E. Sotirios<sup>2</sup>, Fletmetakis Emmanouil<sup>1\*</sup>  
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\* Corresponding author  
*Laboratory of Molecular Biology, Department of Biotechnology, School of Applied Biology and Biotechnology, Agricultural University of Athens, 75 Iera Odos str., 11855 Athens, Greece*

- 145** **Discovering the role of VIRP1, a bromodomain protein crucial for viroid infection**  
**Eirini Bardani<sup>1</sup>, Konstantina Katsarou<sup>1,2</sup>, Kriton Kalantidis<sup>1,2\*</sup>**  
*<sup>1</sup> University of Crete, Heraklion, Greece*  
*<sup>2</sup> Institute of Molecular Biology and Biotechnology, Heraklion, Crete, Greece*
- 169** **Gene silencing goes viral: The use of baculovirus-encoded viral-like particles (VLPs) as a potential environmentally safe biotechnological RNAi application in insect pests**  
**Anna Kolliopoulou<sup>1</sup>, Dimitrios Kontogiannatos<sup>1</sup>, Yongchao Zhao<sup>1,2</sup>, Feifei Ren<sup>2</sup>, Qiuyuan Lu<sup>2</sup>, Jingchen Sun<sup>2</sup>, Luc Swevers<sup>1\*</sup>**  
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*<sup>2</sup> College of Animal Science, South China Agricultural University, Guangzhou, China*  
*\*e-mail: swevers@bio.demokritos.gr*
- 510** **SuptoxR & SuptoxR2.0: Two specialized Escherichia coli strains for high-level recombinant membrane protein production**  
**Eleni Vasilopoulou<sup>1,2</sup>, Dimitra Gialama<sup>1</sup>, Myrsini Michou<sup>1,2</sup>, Artemis Giannakopoulou<sup>1</sup>, Georgios Skretas<sup>1\*</sup>**  
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*<sup>2</sup> Department of Biochemistry and Biotechnology, University of Thessaly, 41500 Vioplis, Larissa, Greece*  
*\*e-mail: gskretas@eie.gr*
- 554** **Metabolomic profiling of contrasting lentil genotypes in response to drought stress**  
**Chrysa Foti<sup>1</sup>, Ioannis Kalampokis<sup>2</sup>, Konstantinos Aliferis<sup>2,3</sup>, Ourania I. Pavli<sup>1\*</sup>**  
*<sup>1</sup> University of Thessaly, Department of Agriculture Crop Production and Rural Environment, Volos, Greece*  
*<sup>2</sup> Agricultural University of Athens, Department of Crop Science, Athens, Greece*  
*<sup>3</sup> Macdonald Campus of McGill University, Department of Plant Science, Sainte-Anne-de-Bellevue, Quebec, Canada*  
*\*e-mail: ouraniapavli@uth.gr*
- 555** **Transgenic expression of hrpZPsp gene substantially alters the metabolome of Nicotiana benthamiana plants**  
**Ourania I. Pavli<sup>1\*</sup>, Nikoletta Mitsopoulou<sup>1</sup>, Evaggelia Zianna<sup>1</sup>, Chrysa Foti<sup>1</sup>, Konstantinos A. Aliferis<sup>2,3</sup>, George N. Skaracis<sup>2</sup>**  
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*<sup>3</sup> Macdonald Campus of McGill University, Department of Plant Science, Sainte-Anne-de-Bellevue, Quebec, Canada*  
*\*e-mail: ouraniapavli@uth.gr*
- 556** **Oxidative stress responses in microalgae: New lessons learned from higher plants**  
**Katerina Koletti<sup>1</sup>, Maria-Eleftheria Zografaki<sup>2</sup>, Chrysanthi Kalloniati<sup>2</sup>, Vassilios Iliopoulos<sup>3</sup>, Andreas Roussis<sup>1\*</sup>, Emmanouil Flemetakis<sup>2\*</sup>**  
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- 559** **Molecular and metabolomics approaches for the investigation of plant-pathogen interactions**  
**Veronica Giourieva, Eleftherios G. Andriotis, Dimitrios A. Kyriakidis, Rigini M. Papi\***  
*Laboratory of Biochemistry, Department of Chemistry, Aristotle University of Thessaloniki, 54124, Greece*  
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- 625** **A multiplex PCR-based, melting curve analysis method for the identification of five *Aspergillus* species**  
**Eleftheria Figgou, Lito Papamichail, Maria Tokamani and Raphael Sandaltzopoulos\***  
*Department of Molecular Biology and Genetics, Health Sciences School, Democritus University of Thrace, Alexandroupolis, Greece.*  
*\*e-mail: rmsandal@mbg.duth.gr*
- 647** **Assessment of genomic response of *Medicago sativa* plants to saline stress during nitrogen fixation process**  
**Catalina Stedel<sup>1</sup>, Costas Tornesakis<sup>2</sup>, Dimitrios Skliros<sup>2</sup>, Chrysanthi Kalloniati<sup>2</sup>, Maria-Eleftheria Zografaki<sup>2</sup>, Aikaterini Koletti<sup>3</sup>, Emmanouil Fletmetakis<sup>2</sup>, Rodica Catalina Efrose<sup>1\*</sup>**  
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*\*e-mail: rodica.efrose@icbiasi.ro*
- 34** **648** **Physiological and molecular responses to progressive drought stress in *Medicago sativa* plants during symbiotic nitrogen fixation**  
**Catalina Stedel<sup>1</sup>, Ligia Acatrinei<sup>1</sup>, Maria Apostol-Brinza<sup>2</sup>, Emmanouil Fletmetakis<sup>3</sup>, Rodica Catalina Efrose<sup>1\*</sup>**  
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- 2** **Deciphering binding interactions of lipase with newly fabricated magnetic silica anchored graphene nanoformulation as promising nanobiocatalyst: Biophysical, stability and molecular docking insights**  
**Mohd Shamoan Asmat**  
*Department of Biochemistry, Faculty of Life Sciences*  
*Aligarh Muslim University, Aligarh, India*
- 141** **An integrated bacterial platform for discovering putative therapeutics against diseases caused by protein misfolding and aggregation**  
**Dafni C. Delivoria<sup>1</sup>, Ilias Matis<sup>1</sup>, Sean Chia<sup>2</sup>, Johnny Habchi<sup>2</sup>, Michele Perni<sup>2</sup>, Nikoletta Papaevgeniou<sup>1,3</sup>, Martin Reczko<sup>4</sup>, Niki Chondrogianni<sup>1</sup>, Christopher M. Dobson<sup>2</sup>, Michele Vendruscolo<sup>2</sup>, Georgios Skretas<sup>1\*</sup>**  
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## Systems Biology &amp; Bioinformatics

- 3** **ELIXIR-GR@DUTH: Implementation of bioinformatics tools for fast, easy, and reproducible genomics research**  
**Fotis Tsetsos<sup>1</sup>, Margaritis Tsifintaris<sup>1</sup>, Maria Markaki<sup>1</sup>, Alexis Galanis<sup>1</sup>, Peristera Paschou<sup>1\*</sup>**  
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\*e-mail: [ppaschou@mbg.duth.gr](mailto:ppaschou@mbg.duth.gr)
- 78** **Hippo(crates): The Openscreen-gr natural compounds database. An integrated atlas and pipelines of chemoinformatics for natural product exploration**  
**Louis Papageorgiou<sup>1,2</sup>, Athena Andreou<sup>1</sup>, Elias Christoforides<sup>1</sup>, Trias Thireou<sup>1</sup>, Dimitrios Vlachakis<sup>1</sup>, Elias E. Eliopoulos<sup>1,\*</sup>**  
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- 84** **Using molecular modelling pipelines for the designing of Antibody Drug Conjugates**  
**Aspasia Efthimiadou<sup>1</sup>, Ellie Damaskopoulou<sup>2</sup>, George P Chrousos<sup>3,4</sup>, Elias Eliopoulos<sup>2</sup>, Dimitrios Vlachakis<sup>2,3,5</sup>**  
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<sup>5</sup> School of Informatics, Faculty of Natural & Mathematical Sciences, King's College London, London, U.K.
- 85** **Development of a bioinformatics tool for the identification and evolutionary classification of the MFS superfamily of sugar transporters**  
**Nikolaidis Marios<sup>1</sup>, Vlastaridis Panayotis<sup>1</sup>, Flemetakis Emmanouil<sup>2</sup>, Frilingos Stathis<sup>3</sup>, Amoutzias D. Gregory<sup>1\*</sup>**  
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\*correspondence to: [amoutzias@bio.uth.gr](mailto:amoutzias@bio.uth.gr)
- 94** **Computational study of the DNA – Clock/Bmal1 complex and the role of cortisol as modulator of circadian rhythms**  
**Sofia Raftopoulou<sup>1,2</sup>, Nicolas C Nicolaides<sup>1,2</sup>, George P Chrousos<sup>2,3</sup>, Elias Eliopoulos<sup>1</sup>, Dimitrios Vlachakis<sup>1,2,4</sup>**  
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- 98** **Discovery of potential targets for anti-viral drug design using viral genome data**  
**Kalliopi Io Diakou<sup>1</sup>, Vasileios Megalooikonomou<sup>2</sup>, George P Chrousos<sup>3,4</sup>, Elias Eliopoulos<sup>1</sup>, Dimitrios Vlachakis<sup>1,5,6</sup>**  
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- 150** **Monitoring rumen microbiome manipulation under microalgae dietary supplementation using Next Generation Sequencing**  
**Alexandros Mavrommatis<sup>1</sup>, Dimitrios Skliros<sup>2</sup>, Emmanouil Fliemetakis<sup>2</sup>, Eleni Tsiplakou<sup>1\*</sup>**  
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- 36** **158** **NMR-BASED METABOLOMICS TOWARDS BIOMARKERS IDENTIFICATION FOR PREMATURE ADRENARCHE**  
**Konstantina Matzarapi<sup>1</sup>, Styliani A. Chasapi<sup>1</sup>, Aristeidis Giannakopoulos<sup>2</sup>, Alexandra Efthymiadou<sup>2</sup>, Dionisios Chrysis<sup>2</sup>, Georgios A. Spyroulias<sup>1\*</sup>**  
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- 161** **Deciphering the importance of focal adhesion proteins in lung adenocarcinoma with bioinformatics tools**  
**Ioanna Pappa<sup>1\*</sup>, Sofia Nikou<sup>1</sup>, Aigli Korfiati<sup>2</sup>, Konstantinos Theofilatos<sup>3</sup>, Seferina Mavroudi<sup>4,5</sup>, Vasiliki Bravou<sup>1</sup>**  
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- 178** **Phylogenetic analysis of quorum sensing systems in bacteria**  
**Marina Giannakara, Vassiliki Lila Koumandou\***  
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- 515** **Investigation of Kalamon and Manaki olives' microbiota using classical microbiological and amplicon-based metagenomics approaches**  
**Maria Kazou<sup>\*1</sup>, Anastasia Palatzidi<sup>1</sup>, Rimi Bounenni<sup>1</sup>, Rania Anastasiou<sup>1</sup>, Georgia Zoumpopoulou<sup>1</sup>, Marina Georgalaki<sup>1</sup>, Eugenia Manolopoulou<sup>1</sup>, Harissis Argyropoulos<sup>2</sup>, Giorgos Rizas<sup>1</sup>, Lena Pagiati<sup>1</sup> and Effie Tsakalidou<sup>1</sup>**  
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- 517 Exploring the microbiota of the PDO Agiorgitiko wine using classical microbiological and amplicon-based metagenomics approaches**  
Maria Kazou\*<sup>1</sup>, Lena Pagiati<sup>1</sup>, Aggeliki Kourkoulakou<sup>1</sup>, Rania Anastasiou<sup>1</sup>, Georgia Zoumpopoulou<sup>1</sup>, Marina Georgalaki<sup>1</sup>, Eugenia Manolopoulou<sup>1</sup>, Maria-Ioanna Xenia<sup>2</sup>, Niki Proxenia<sup>2</sup>, Yorgos Kotseridis<sup>2</sup> and Effie Tsakalidou<sup>1</sup>  
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- 528 OMIC-ENGINE – The UPAT Hub: Laboratory of Protein Architecture @ Biomolecular NMR**  
Maria D. Politi, Sofia-Antigoni Tsatsouli, Evdokia Karagkouni, Konstantina Matzarapi, Georgios A. Spyroulias\*  
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- 541 Deciphering the importance of focal adhesion proteins in lung adenocarcinoma with network medicine bioinformatics tools**  
Ioanna Pappa<sup>1\*</sup>, Sofia Nikou<sup>1</sup>, Aigli Korfiati<sup>2</sup>, Konstantinos Theofilatos<sup>2</sup>, Seferina Mavroudi<sup>2,3</sup>, Vasiliki Bravou<sup>1</sup>  
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- 568 NMR metabolic profiling of Greek Pistacia lentiscus leaves and fruit extracts for the identification of biomarkers with skin beneficial effects.**  
Antigoni Cheilari<sup>1</sup>, Patroklos Papalexis<sup>1</sup>, Argyro Vontzalidou<sup>1</sup>, Evanthia Dina<sup>1</sup>, Ilias Smyrnioudis<sup>2</sup>, Nektarios Aligiannis<sup>1,\*</sup>  
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- 598 Whole Genome Sequencing analysis for characterization of genomic variations associated with antimicrobial resistance among Greek Helicobacter pylori isolates**  
G. Papadopoulou<sup>1,2</sup>, B. Martinez-Gonzalez<sup>1</sup>, T. Karamitros<sup>1,3</sup>, P. Kollia<sup>2</sup>, A. F. Mentis<sup>1</sup>, D. N. Sgouras<sup>1\*</sup>;  
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- 612 An NGS-based methodology for mosquito populational genetics**  
Katerina Kassela<sup>1</sup>, Adamantia Kouvela<sup>1</sup>, Nikolas Dovrolis<sup>1</sup>, Maria Bampali<sup>1</sup>, Chariclia Tziaferi<sup>1</sup>, Maria Goreti Rosa-Freitas<sup>2</sup>, Michael DeCoursey Williams, Stavroula Veletza<sup>1</sup>, Ioannis Karakasiliotis<sup>1</sup>  
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- 623** **Development and evaluation of a Drug-Repurposing Pipeline in Lymphoid Neoplasms**  
Dimitra Mavridou<sup>1,3</sup>, Georgia Orfanoudaki<sup>2</sup>, Vasileios Papadopoulos<sup>1,3</sup>, Konstantina Psatha<sup>2,3</sup>, Michalis Aivaliotis<sup>1,2,3\*</sup>  
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<sup>2</sup> Institute of Molecular Biology and Biotechnology Foundation for Research and Technology- Hellas, Heraklion, Greece  
<sup>3</sup> Functional Proteomics and Systems Biology (FunPATH) – Center for Interdisciplinary Research and Innovation (CIRI-AUTH), Thessaloniki, Greece  
\*email: aivaliotis@auth.gr
- 642** **Random forest analysis of integrated omics data provides genes that distinguish different types of  $\beta$ -thalassaemia**  
George Sentis<sup>1</sup>, Aikaterini Nanou<sup>1</sup>, Chrisavgi Toumpeki<sup>1</sup>, Konstantinos Vougas<sup>1</sup>, Giorgos Giagkas<sup>1</sup>, Roberto Gambari<sup>2</sup>, Marina Kleanthous<sup>3</sup> and Eleni Katsantoni<sup>1\*</sup>  
<sup>1</sup> Basic Research Center, Biomedical Research Foundation, Academy of Athens, Athens, Greece  
<sup>2</sup> Department of Life Sciences and Biotechnology, Ferrara University, Ferrara, Italy  
<sup>3</sup> Molecular Genetics Thalassaemia Department, CING, Nicosia, Cyprus  
\*e-mail: ekatsantoni@bioacademy.gr
- 41** **Constructing the EvolUniquome: an Evolutionary Process of Progressive Complexity from Popular Model-organism to Human-species Uniquome**  
Evangelos Kontopodis<sup>1</sup>, Vasileios Pierros<sup>1</sup>, Athanasios K. Anagnostopoulos<sup>1</sup>, Issidora S. Papassideri<sup>2</sup>, Constantinos E. Vorgias<sup>3</sup>, Dimitrios J. Stravopodis<sup>2</sup> and George Th. Tsangaris<sup>1</sup>  
<sup>1</sup> Proteomics Research Unit, Biomedical Research Foundation of the Academy of Athens, Greece  
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<sup>3</sup> Section of Biochemistry & Molecular Biology, Department of Biology, National and Kapodistrian University of Athens, Greece
- 155** **Phosphorylation mapping of laminin  $\gamma$ 1-chain: Kinases in association with active sites and cancer mutations**  
Panagiota-Angeliki Galliou\*, Kleio-Maria Verrou, Maria Papaioannou, Nikolaos A. Papanikolaou, Georgios Koliakos  
Laboratory of Biological Chemistry, School of Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki, University Campus, 54124, Thessaloniki, Greece.  
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- 507** **H NMR metabolomics in urine samples of patients with chronic kidney disease and control donors**  
Evdokia Karagkouni<sup>1</sup>, Styliani A. Chasapi<sup>1</sup>, Sotiris S Vamvakas<sup>2</sup>, Dimitra Kalavrizioti<sup>2</sup>, Dimitrios S. Goumenos<sup>2</sup>, Georgios A. Spyroulias<sup>1\*</sup>  
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## Chemical Biology

- 31** **In vitro toxicity evaluation of newly synthesised iron oxide magnetic nanoparticles (IOMNPs)**  
Amalia Fryda<sup>1,2</sup>, Niki Karouta<sup>3</sup>, Yannis V. Simos<sup>2,\*</sup>, Konstantinos Spyrou<sup>3</sup>, Michaela Patila<sup>1</sup>, Evangelia Dounousi<sup>4</sup>, Dimitrios Gournis<sup>3</sup>, Dimitrios Peschos<sup>2</sup>, Haralambos Stamatis<sup>1</sup>  
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- 35** **BRAF inhibitors- paradox breakers efficiency and pathway analysis in colon cancer cell lines**  
Kassandra Koumaki<sup>1</sup>, Georgia Kontogianni<sup>1</sup>, Vivian Kosmidou<sup>1</sup>, Eftimhia Pappou<sup>1</sup>, Eftichia Kritsi<sup>1</sup>, Maria Zervou<sup>1</sup>, Aristotelis Chatziioannou<sup>1</sup>, Vassilis L. Souliotis<sup>1</sup>, Olga Papadodima<sup>1</sup>, Alexander Pintzas<sup>1\*</sup>  
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- 38** **Simulation of Ga proteins binding on GPCRs may predict ligands' agonistic/antagonistic properties**  
Athanasios A. Panagiotopoulos<sup>1</sup>, Christina Papachristofi<sup>1</sup>, Konstantina Kalyvianaki<sup>1</sup>, Panagiotis Malamos<sup>1</sup>, Panayiotis A. Theodoropoulos<sup>2</sup>, George Notas<sup>1</sup>, Theodora Calogeropoulou<sup>3</sup>, Elias Castanas<sup>1\*</sup>, Marilena Kampa<sup>1\*</sup>  
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<sup>2</sup> Laboratory of Biochemistry, University of Crete, School of Medicine, Heraklion, Greece  
<sup>3</sup> Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic Research Foundation, Athens, Greece
- 40** **Novel benzothiazole derivatives as potential BRAF inhibitors in colorectal adenocarcinoma cell lines**  
Kassandra Koumaki<sup>1\*</sup>, Yakinthi Batsi<sup>1</sup>, Vivian Kosmidou<sup>1</sup>, Eftichia Kritsi<sup>1</sup>, Maria Zervou<sup>1</sup>, Georgia Antonopoulou<sup>1</sup>, Ioannis D. Kostas<sup>1</sup>, Vassilis L. Souliotis<sup>1</sup>, Alexander Pintzas<sup>1</sup>  
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- 51** **Enhancement of antioxidant and cytotoxic effects in an olive leaf extract by enzymatic bioconversion of oleuropein to hydroxytyrosol**  
Xanthoula Karupidou<sup>1,2</sup>, Alexandra V. Chatzikonstantinou<sup>1</sup>, Yannis V. Simos<sup>2,\*</sup>, Stamatia Spyrou<sup>1</sup>, Angeliki Polydera<sup>1</sup>, Dimitrios Peschos<sup>2</sup>, Haralambos Stamatis<sup>1</sup>  
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<sup>2</sup> Department of Physiology, School of Health Sciences, Faculty of Medicine, University of Ioannina, Ioannina, Greece
- 61** **Oxidative stress analysis of bioactive glass-ceramics nanomaterials after exposure to human erythrocytes**  
Konstantina Kazeli<sup>1,2</sup>, Ioannis Tsamesidis<sup>3</sup>, Eleana Kontonasaki<sup>4</sup>, Evgenia Lymperaki<sup>2\*</sup>  
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- 74** **Discovery of novel 5-arylcarboximidamidopyrazolo[3,4-c]pyridines as potential anticancer agents: Synthesis, cytotoxicity and kinase inhibitory activity**  
Harris Pratsinis<sup>1\*</sup>, Athanassios Papastathopoulos<sup>2</sup>, Nikolaos Lougiakis<sup>2</sup>, Panagiotis Marakos<sup>2</sup>, Nicole Pouli<sup>2</sup>, Dimitris Kletsas<sup>1</sup>  
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- 88 Identification of inhibitors of thioredoxin reductases from natural compounds**  
Stavroula Papadimitriou<sup>1</sup>, Océane Wacrenier<sup>1</sup>, Virginia D. Dimaki<sup>2</sup>, Nikolaos Lougiakis<sup>3</sup>, Panagiotis Marakos<sup>3</sup>, Arne Holmgren<sup>4</sup>, Fotini Lamari<sup>2</sup>, Alexios-Leandros Skaltsounis<sup>3</sup>, Alexios Vlamis-Gardikas<sup>1\*</sup>  
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- 128 Spectroscopic properties and TLC profile of sepals from the plant Delphinium sp.**  
Paraskevi Beza<sup>1</sup>, Marina Magoula<sup>2\*</sup>, Panagiotis Mpadas<sup>2\*</sup>, Nikolaos Mpormpotsialos<sup>2\*</sup>, Georgia Stefanidou<sup>2\*</sup>, Dimitrios Kyrkas<sup>1</sup>, Nikolaos Mantzos<sup>1</sup>, George K. Papadopoulos<sup>3\*\*</sup>  
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- 146 Immunomodulating and anti-cancer activity of edible Greek mushrooms of high  $\beta$ -glucan content**  
Marigoula Vlassopoulou<sup>1,2\*</sup>, Athina Boulaka<sup>1\*</sup>, Danai Kaligosi<sup>1,3</sup>, Georgios I. Zervakis<sup>3</sup>, Adamantini Kyriacou<sup>2</sup>, Panagiotis Georgiadis<sup>1</sup>, Vasiliki Pletsas<sup>1</sup>  
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- 159 The effect of dendrimers and magnetic nanoparticles on human blood lymphocytes**  
Maria-Anthi Kakavoulia<sup>1,2\*</sup>, Maria Karakota<sup>1</sup>, Martha Kaloyianni-Dimitriadi<sup>2</sup>, Eleftherios Halevas<sup>3</sup>, Marina Sagnou<sup>3</sup>, Georgios Koliakos<sup>1</sup>  
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- 188 Development of New Selective Glucocorticoid Receptor Agonists: hit-to-lead optimization**  
Dimitra Siakouli, Eftichia Kritsi, Alia-Christina Tenchiu, Nikiforos Travlos, Georgios Panagiotou, Athina Boulaka, Katerina Nasaj, Constantinos Potamitis, Olga Kirkilessi, Andromachi Tzani, Theodora Calogeropoulou, Cécile Arbez-Gindre, Michael N. Alexis, Ioannis D. Kostas, Maria Zervou, Dimitra J. Mitsiou\*  
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- 533 Biological Evaluation of a 2-(4'-Aminophenyl)benzothiazole Diagnostic Agent for Breast Cancer**  
Barbara Mavroidi<sup>1</sup>, Marina Sagnou<sup>1</sup>, Antonio Shegani<sup>2</sup>, Maria Paravatou-Petsotas<sup>2</sup>, Ioannis Pirmettis<sup>2</sup>, Minas Papadopoulos<sup>2</sup>, Maria Pelecanou<sup>1\*</sup>  
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- 632 Identification and biochemical characterization of a poly-ADP-ribose polymerase like enzyme in *Thermus thermophilus* HB8**  
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- 634 Anti-inflammatory and antioxidant effect of cannabidiol on adult male mice with induction of inflammation**  
**Konstantinos Mesiakaris<sup>1</sup>, Marilena Kaperoni<sup>1</sup>, Korina Atsopardi<sup>1,2\*</sup>, Marigoula Margarity<sup>2</sup>, Konstantinos Poulas<sup>1</sup>**  
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<sup>2</sup>Laboratory of Human and Animal Physiology, Department of Biology, University of Patras, Greece
- 635 Evaluation of anxiety behavior and acetylcholinesterase's isoforms activity of adult mice after cigarette smoke exposure**  
**Korina Atsopardi<sup>1,2\*</sup>, Konstantinos Kanellopoulos Kotsonis<sup>2</sup>, Vasileios Kafantogias<sup>2</sup>, Theofanis Tsiliras<sup>2</sup>, Konstantinos Poulas<sup>1</sup>, Marigoula Margarity<sup>2</sup>**  
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- 636 Effect of N-acetylcysteine on anxiety-like behavior and acetylcholinesterase's isoforms activity in specific brain regions of pentylene-tetrazol-treated mice**  
**Despina Matsentidou<sup>1</sup>, Eleni Makarouni<sup>1</sup>, Korina Atsopardi<sup>1,2\*</sup>, Maria Anesti<sup>3</sup>, Marigoula Margarity<sup>1</sup>, Nikolaos T. Panagopoulos<sup>1</sup>**  
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- 177 In vitro fermentation of edible Greek mushrooms of high  $\beta$ -glucan content by human Gut Microbiota: cytotoxic, genotoxic and metabolic profiling of the products**  
**Athina Boulaka<sup>1,\*</sup>, Paraschos Christodoulou<sup>1,\*</sup>, Marigoula Vlassopoulou<sup>1,3</sup>, Georgios I. Zervakis<sup>2</sup>, Adamantini Kyriacou<sup>3</sup>, Maria Zervou<sup>1</sup>, V. Pletsa<sup>1</sup>, Panagiotis Georgiadis<sup>1</sup>**  
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## Cell Communication & Signaling

- 7 Flavone quercetin inhibits IL-1 $\beta$ -induced inflammation in human osteoarthritis chondrocytes**  
**Aliki-Ioanna Apostolou\*, Maria-Elpida Christopoulou, Alexios J. Aletras**  
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- 8 Quercetin inhibits IL-1 $\beta$  and TNF- $\alpha$ -induced inflammation in fibroblasts from human osteoarthritis synovial membrane and loose arthroplasty endoprostheses interface tissue**  
**Aliki-Ioanna Apostolou\*, Maria-Elpida Christopoulou, Elena Neofotistou, Kaliopi Chaikou, Alexios J. Aletras**  
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- 10** **Sumoylation under hypoxia: the role of Exosc10**  
**Chrysa Filippopoulou, George Simos and Georgia Chachami\***  
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- 26** **Steviol glycosides: potent regulators of breast cancer?**  
**Christos Velesiotis, Thaleia Rapti, Marinos Kanellakis, Demitrios H. Vynios\***  
*Biochemistry, Biochemical Analysis & Matrix Pathobiology Research Group, Laboratory of Biochemistry, Department of Chemistry, University of Patras, Patras, Greece.*  
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- 56** **Induction of hyaluronan synthesis in stromal fibroblasts by a new cancer-related secreted factor**  
**Maria Luisa D'Angelo<sup>1</sup>, Barbara Bartolini<sup>1</sup>, Elena Caravà<sup>1</sup>, Flavia Contino<sup>2</sup>, Patrizia Cancemi<sup>2,3</sup>, Paola Moretto<sup>1</sup>, Ilaria Caon<sup>1</sup>, Nikos K. Karamanos<sup>4</sup>, Davide Vigetti<sup>1</sup>, Alberto Passi<sup>1</sup>, Manuela Viola<sup>1</sup>, Evgenia Karousou<sup>1\*</sup>**  
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- 97** **Estrogen receptor beta determines the action of hyaluronan in mammary cancer cells**  
**Anastasia-Gerasimoula Tavianatou<sup>1</sup>, Zoi Piperigkou<sup>1</sup>, Christos Koutsakis<sup>1</sup>, Stavroula-Ioanna Pariou<sup>1</sup>, Carlo Barbera<sup>3</sup>, Riccardo Beninato<sup>3</sup>, Marco Franchi<sup>4</sup> Devis Galesso<sup>3</sup> and Nikos K. Karamanos<sup>1</sup>**  
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- 106** **Potential anticancer effect of antipsychotic drugs: in vitro investigation in NSCLC cell lines**  
**Christina Andriopoulou, Paraskevi Kirgou, Fivos Kanellos, Aristeidis Kofinas, George Leondaritis, Periklis Pappas, Maria Konstandi**  
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- 108** **Role of Oleuropein-induced PPAR $\alpha$  activation in Neural Plasticity**  
**Faye Malliou, Christina E. Andriopoulou, Aristeidis Kofinas, Theologos Michaelidis, Allena Katsogridaki, Leandros Skaltsounis and Maria Konstandi**  
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- 121** **The role of HIF-1 $\alpha$  phosphorylation in cancer cell adaptation to hypoxia: Construction and functional analysis of HIF1A<sup>-/-</sup> cell lines stably expressing HIF-1 $\alpha$  forms with phosphoacceptor site mutations**  
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- 136** **Vascular endothelial growth factor A (VEGFA) inhibitors differentially affect VEGFA165-induced ERK1/2 phosphorylation in endothelial cells**  
**Effrosyni Choleva<sup>1</sup>, Marina Koutsioumpa<sup>1,#</sup>, Miryam Pastor<sup>2</sup>, Gonzalo Herradón<sup>2</sup>, Theodoros Tselios<sup>3</sup>, Evangelia Papadimitriou<sup>1\*</sup>**  
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- 166** **Cellular responses of wireless micro-current stimulation and its involvement in wound healing**  
**Evangelia Konstantinou, Zoi Zagoriti and Konstantinos Poulas\***  
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- 167** **Identification of a new protein interaction of HIF-2α with Reptin52**  
**Ioanna-Maria Gkotinakou<sup>1</sup>, Christina Befani<sup>1</sup>, Aikaterini Diseri<sup>1</sup>, Martina Samiotaki<sup>2</sup>, George Panayotou<sup>2</sup>, Panagiotis Liakos<sup>1\*</sup>**  
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- 184** **WISP-1 enhances MIF, IL-6 and MMP-2 expression in human nasal polyps' fibroblasts (NPFs)**  
**M-E. Christopoulou, P. Moraiti and A. J. Aletras**  
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- 189** **Detection of prothymosin alpha in supernatants of HeLa cells driven to necrosis with a highly specific, IgY-based ELISA**  
**Chrysoula-Evangelia Karachaliou<sup>1</sup>, Ioannis Kostopoulos<sup>2</sup>, Christos Zikos<sup>1</sup>, Wolfgang Voelter<sup>3</sup>, Hubert Kalbacher<sup>3</sup>, Ourania Tsitsilonis<sup>2</sup>, Evangelia Livaniou<sup>1\*</sup>**  
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- 502** **Antioxidant and anti-apoptotic activities of mitochondrial estrogen receptor beta in N2A neuroblastoma cells**  
**Ioannis Tsialtas, Achilleas Georgantopoulos, Maria Karipidou, Ioannis Gkantounas, Anna-Maria G. Psarra\***  
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**512 Pleiotrophin as a potential novel player of translation****Eleni Mourkogianni<sup>1,\*</sup>, Marina Koutsoumpa<sup>1,#</sup>, Penelopi Kastana<sup>1</sup>, George Kyriakopoulos<sup>2</sup>, Constantinos M. Mikelis<sup>3</sup>, Spyridon Skandalis<sup>4,5</sup>, Ulf Hellman<sup>5</sup>, Constantinos Stathopoulos<sup>2</sup>, Evangelia Papadimitriou<sup>1</sup>**<sup>1</sup>Laboratory of Molecular Pharmacology, Department of Pharmacy, School of Health Sciences, University of Patras, Greece;<sup>2</sup>Laboratory of Biochemistry, Department of Medicine, School of Health Sciences, University of Patras, GR26504 Patras, Greece;<sup>3</sup>Department of Biomedical Sciences, School of Pharmacy, Texas Tech University Health Sciences Center, Amarillo, TX, USA;<sup>4</sup>Laboratory of Biochemistry, Department of Chemistry, University of Patras, GR26504 Patras, Greece;<sup>5</sup>Ludwig Institute for Cancer Research, Uppsala University, Uppsala SE-751-05, Sweden

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**513 The effect of a PTN peptide on angiogenesis and cancer growth****Spyridoula Barmoutsis<sup>1</sup>, Penelopi Kastana<sup>1</sup>, Despoina Ntenekou<sup>1</sup>, Evanthia Sfaelou<sup>1</sup>, Dimitrios Spyropoulos<sup>1</sup>, Evangelia Sereti<sup>2</sup>, Konstantinos Dimas<sup>2</sup>, Aikaterini Zompra<sup>3</sup>, Evangelia Papadimitriou<sup>1\*</sup>**<sup>1</sup>Laboratory of Molecular Pharmacology, Department of Pharmacy, University of Patras, Patras, Greece<sup>2</sup>Laboratory of Pharmacology, Department of Medicine, University of Thessaly, Biopolis, Larissa, Greece<sup>3</sup>Laboratory of Pharmacognosy, Department of Pharmacy, University of Patras, Patras, Greece**519 Evaluation of exosome isolation methods from canine biological fluids****Antonia Efstathiou<sup>1</sup>, Dimitra K. Toubanaki<sup>1</sup>, Evdokia Karagouni<sup>1</sup>**<sup>1</sup>Laboratory of Immunology of infectious diseases, Department of Microbiology, Hellenic Pasteur Institute**520 Biological activities of resin and leaves from Chios Mastiha tree - Interference with glucocorticoid receptor signaling****Foteini D. Kalousi<sup>1</sup>, Aikaterini G. Karra<sup>1</sup>, Stefanos Christodoulou<sup>1</sup>, Andria Theodosi<sup>1</sup>, Giovanni Appendino<sup>2</sup>, Anna-Maria G. Psarra<sup>1\*</sup>**<sup>1</sup>Department of Biochemistry and Biotechnology, University of Thessaly, Larissa, Greece<sup>2</sup>Faculty of Pharmacy, University of Eastern Piedmont, Novara, Italy

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**531 Biological evaluation of new isatin derivatives as inhibitors of neurodegeneration by modulation of insulin signaling****Archontia Kaminari<sup>1</sup>, Barbara Mavroidi<sup>1</sup>, Athina Tzinia<sup>1</sup>, Maria Pelecanou<sup>1</sup>, Marina Sagnou<sup>1\*</sup>**<sup>1</sup>Institute Biosciences and Applications, National Centre for Scientific Research "Demokritos", Athens, Greece

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**547 The role of the mitochondrial glucocorticoid receptor in tumor development****Aikaterini G Karra<sup>1</sup>, Evangelia Sereti<sup>2</sup>, Konstantinos Dimas<sup>2</sup> and Anna-Maria G. Psarra<sup>1,\*</sup>**<sup>1</sup>Department of Biochemistry and Biotechnology, School of Health Sciences, University of Thessaly, Larissa, Greece<sup>2</sup>Department of Pharmacology, Faculty of Medicine, School of Health Sciences, University of Thessaly, Larissa, Greece

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**550 Quercetin suppresses IL-1 $\beta$  and TNF- $\alpha$ -induced expression of various inflammatory factors in human primary pterygium fibroblasts****Maria-Elpida Christopoulou<sup>1</sup>, Christina Sotiropoulou<sup>1</sup>, Nikolaos Pharmakakis<sup>2</sup>, Alexios J. Aletras<sup>1\*</sup>**<sup>1</sup>Laboratory of Biochemistry, Department of Chemistry, School of Sciences, and Department of 2Ophthalmology, Medical School, University of Patras, Patras, Greece

- 567** **The effects of sulfated hyaluronan on functional properties and protein expression of breast cancer cells with different estrogen receptor status**  
**Christos Koutsakis<sup>1</sup>, Anastasia-Gerasimoula Tavianatou<sup>1</sup>, Zoi Piperigkou<sup>1</sup>, George Baroutas<sup>1</sup>, Dimitris Kokoretsis<sup>1</sup>, Nikos K. Karamanos<sup>1</sup>**  
*<sup>1</sup> Biochemistry, Biochemical Analysis & Matrix Pathobiology Research Group, Laboratory of Biochemistry, Department of Chemistry, University of Patras, Greece*
- 576** **The cytoplasmic Acetoacetyl CoA Thiolase (ACAT2), a novel Rab5 effector, regulates endocytic membrane transport**  
**Katerina Galanopoulou<sup>1,2</sup>, Thanasis Ziogas<sup>1,2</sup>, Dimitris Basagiannis<sup>1,2</sup>, Sofia Zografou<sup>1,2</sup>, Agathi Papanikolaou<sup>1,2</sup>, Michalis Aivaliotis<sup>3</sup>, Marino Zerial and Savvas Christoforidis<sup>1,2\*</sup>**  
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\*Corresponding author: Savvas Christoforidis: email: savvas\_christoforidis@imbb.forth.gr, schristo@uoi.gr*
- 617** **Long ncRNAs consistently detected in exosomes of human breastmilk are differentially expressed in preterm compared to term childbirth mothers**  
**Siahaniidou, T.,<sup>1</sup> Mourtzi, N.,<sup>2</sup> Karamichali, E.,<sup>3</sup> Sertedaki A.,<sup>1</sup> Pesmatzoglou. M.,<sup>1</sup> Liosis, G.,<sup>4</sup> Giannakakis A.,<sup>5\*</sup> and Chrousos, G.<sup>1\*</sup>**  
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<sup>5</sup> Dpt. Molecular Biology & Genetics, Democritus University of Thrace, Alexandroupolis, Greece  
\*e-mails: antgian@mbg.duth.gr, chrousos@gmail.com*
- 96** **Hyaluronan molecular size as a key regulator of biological properties and morphology of low and high invasive breast cancer cells**  
**Anastasia-Gerasimoula Tavianatou<sup>1</sup>, Zoi Piperigkou<sup>1</sup>, Dimitris Kokoretsis<sup>1</sup>, George Baroutas<sup>1</sup>, Carlo Barbera<sup>3</sup>, Riccardo Beninato<sup>3</sup>, Maurizio Onisto<sup>4</sup>, Marco Franchi<sup>5</sup>, Devis Galessio<sup>3</sup> and Nikos K. Karamanos<sup>1</sup>**  
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<sup>3</sup> Department of Biomedical Sciences, University of Padova, Padova, Italy  
<sup>4</sup> Department for Life Quality Studies, University of Bologna, Italy*
- 558** **Binding of pleiotrophin to vascular endothelial growth factor receptor 2 regulates endothelial cell migration**  
**Margarita Lamprou<sup>1</sup>, Pinelopi Kastana<sup>1</sup>, Effrosyni Choleva<sup>1</sup>, Haralampos Tzoupis<sup>2</sup>, Spyridoula Barmpoutsis<sup>1</sup>, Despoina Ntenekou<sup>1</sup>, Evangelia Poimenidi<sup>1</sup>, Katerina Zompra<sup>3</sup>, Md Sanaulah Sajib<sup>4</sup>, Theodoros Tselios<sup>2</sup>, Constantinos M. Mikelis<sup>4</sup> and Evangelia Papadimitriou<sup>1,\*</sup>**  
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<sup>4</sup> Department of Biomedical Sciences, School of Pharmacy, Texas Tech University Health Sciences Center, Amarillo, TX, USA  
\*e-mail: epapad@upatras.gr*

- 579 The role of Regulator of G protein signalling 4 in neuronal cell death and differentiation**  
Paschalina Pallaki<sup>1</sup>, Christos Karoussiotis<sup>1</sup>, Alexia Polissidis<sup>2</sup>, Ioannis Serafimidis<sup>3</sup>, Zafiroula Georgoussi<sup>1</sup>  
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<sup>3</sup>Laboratory of Developmental Biology, Biomedical Research Foundation of the Academy of Athens, 11527 Athens, Greece
- 566 Dual EGFR – ERβ targeting suppresses EMT and stem cell-like properties of highly aggressive breast cancer cells**  
Konstantina Kyriakopoulou<sup>1\*</sup>, Elena Kefali<sup>1</sup>, Eirini Riti<sup>1</sup>, Zoi Piperigkou<sup>1,2</sup>, Martin Goette<sup>3</sup>, Burkhard Greve<sup>4</sup>, Nikos K. Karamanos<sup>1,2</sup>  
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\*email: k.kyriakopoulou@upnet.gr

## Functional Genomics and Proteomics

- 42 Gut microbiome and host proteome analysis of mouse fecal samples: age-, sex- and environment-related effects**  
George M. Stamatakis, Dimitris Xynos, Myrto Denaxa, George Panayotou, Martina Samiotaki.  
Institute of Bioinnovation, B.S.R.C. "Alexander Fleming", Vari, Greece
- 112 Error prone PCR and random mutagenesis: A new method for optimizing the expression of protein coding genes**  
Aristeidis Ntoukas, Katerina Gentekaki, Athanasios Niarchos\* and Konstantinos Poulas\*  
Department of Pharmacy, University of Patras, GR26500, Patras, Greece \*e-mail: kpoulas@upatras.gr, a.niarchos@gmail.com
- 148 Preliminary proteomic analysis of CD138+ cells for predicting the response of multiple myeloma patients to commonly used therapeutic regimens**  
Vasiliki Lygirou<sup>1\*</sup>, Manousos Makridakis<sup>1</sup>, Rafael Stroggilos<sup>1</sup>, Ioannis V. Kostopoulos<sup>2</sup>, Christine-Ivy Liacos<sup>3</sup>, Aikaterini Termentzi<sup>4</sup>, Jerome Zoidakis<sup>1</sup>, Meletios A. Dimopoulos<sup>3</sup>, Ourania Tsitsilonis<sup>2</sup>, Antonia Vlahou<sup>1</sup>, Efstathios Kastritis<sup>3</sup>  
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- 149 Investigation of the pathogenicity of *Helicobacter pylori* clinical isolates by comparative Whole Genome Sequencing**  
Vassilis Lignos<sup>1,2</sup>, Beatriz Martinez-Gonzalez<sup>1</sup>, Yiannis Karayiannis<sup>1</sup>, Eleftherios Kontizas<sup>1</sup>, Timokratis Karamitros<sup>1</sup>, Andreas Mentis<sup>1</sup>, Panagoula Kollia<sup>2</sup>, Dionyssios Sgouras<sup>1</sup>  
<sup>1</sup>Laboratory of Medical Microbiology, Hellenic Pasteur Institute, Athens, Greece  
<sup>2</sup>Department of Genetics and Biotechnology, Faculty of Biology, School of Physical Sciences, University of Athens, Athens, Greece
- 154 Proteomic analysis of formalin fixed tissues for the investigation of prostate cancer**  
Anna Mantsiou<sup>1</sup>, Manousos Makridakis<sup>1</sup>, Konstantinos Fasoulakis<sup>2</sup>, Jerome Zoidakis<sup>1</sup>, Antonia Vlahou<sup>1</sup>, Vasiliki Lygirou<sup>1\*</sup>  
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\*e-mail: vlygirou@bioacademy.gr
- 172 Atlas at Last: The Greek Goat Cheese Protein Atlas**  
Maria-Christina Anastasoviti, George Th. Tsangaris, Thanasis Anagnostopoulos  
Proteomics Research Unit, Center of Basic Research, Biomedical Research Foundation of the Academy of Athens (BRFAA), Athens, Greece
- 179 Deciphering the role of the scaffold protein IQGAP1 in gastric cancer**  
Myrto Potiri<sup>1</sup>, Zoi Erpapazoglou<sup>1</sup>, Malgorzata Rogalska<sup>2</sup>, Martina Samiotaki<sup>1</sup>, Giorgos Stamatakis<sup>1</sup>, Juan Valcarcel<sup>2</sup>, Yiota Kafasla<sup>1\*</sup>  
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<sup>2</sup>Gene Regulation, Stem Cells and cancer, Centre for Genomic Regulation, Barcelona, Spain  
\*kafasla@fleming.gr
- 186 Long-term experimental infection of *Dicentrarchus labrax* (sea bass) with Nervous Necrosis virus affects growth performance and fish immunity**  
Dimitra K. Toubanaki<sup>1</sup>, Akindynos Palaiologos<sup>2</sup>, Michail-Aggelos Valsamidis<sup>2</sup>, Vasileios Bakopoulos<sup>2</sup>, Evdokia Karagouni<sup>1\*</sup>  
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<sup>2</sup>University of the Aegean, Department of Marine Sciences, 81100 Mytilene, Greece.  
\*e-mail: ekaragouni@pasteur.gr
- 187 Effect of doxorubicin and/or oleuropein on PC-3 prostate cancer cells: Proteomics analysis approach**  
Anastasia Papachristodoulou<sup>2,3</sup>, Katerina Gioti<sup>1</sup>, Georgia Orfanoudaki<sup>4</sup>, Konstantina Psatha<sup>4</sup>, Michalis Aivaliotis<sup>4,5,6</sup>, Emmanuel Mikros<sup>3</sup>, Roxane Tenta<sup>1</sup>  
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**565 Multiplexed MRM-based protein quantification of putative prognostic biomarkers for chronic kidney disease progression in plasma****Georgia Kontostathi<sup>1</sup>, Manousos Makridakis<sup>1</sup>, Eleni Petra<sup>1</sup>, Rafael Stroggilos<sup>1</sup>, Szymon Filip<sup>1</sup>, Flore Duranton<sup>2</sup>, Harald Mischak<sup>3</sup>, Angel Argiles<sup>2</sup>, Jerome Zoidakis<sup>1</sup>, Antonia Vlahou<sup>1</sup>**<sup>1</sup> Biotechnology Division, Biomedical Research Foundation, Academy of Athens (BRFAA), Athens, Greece, <sup>2</sup>RD-Néphrologie, Montpellier, France, <sup>3</sup>Mosaïques Diagnostics, Hannover, Germany**581 Identification and characterization of  $\beta$ -catenin/TCF4 interacting long non-coding RNAs****Alexandros Galaras<sup>1,2</sup>, Vasiliki Zarkou<sup>1,3</sup>, Panagiotis Moulos<sup>1</sup>, Vagelis Harokopos<sup>1</sup>, Martin Reczko<sup>1</sup>, Martina Samiotaki<sup>1</sup>, George Panayotou<sup>1</sup>, Antonis Giakountis<sup>1,2</sup>, Pantelis Hatzis**<sup>1</sup> Biomedical Sciences Research Center "Alexander Fleming", 16672 Vari Athens<sup>2</sup> Department of Biochemistry and Biotechnology, University of Thessaly<sup>3</sup> Department of Biology, Aristotle University of Thessaloniki**631 Comparative study of ribosomal proteins in lymphoma models using proteomics and transcriptomics analysis****Konstantina Psatha<sup>1,2</sup>#, Athina Milioti<sup>3</sup>#, Laxmikanth Kollipara<sup>4</sup>, George Rassidakis<sup>5</sup>, Elias Drakos<sup>6</sup>, Albert Sickmann<sup>4</sup>, Michalis Aivaliotis<sup>1,2,3</sup>**<sup>1</sup> Institute of Molecular Biology and Biotechnology Foundation for Research and Technology- Hellas, Heraklion, Greece<sup>2</sup> Functional Proteomics and Systems Biology (FunPATH) – Center for Interdisciplinary Research and Innovation (CIRI-AUTH)<sup>3</sup> Laboratory of Biochemistry, Division of Biological Sciences and Preventive Medicine, Department of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece.<sup>4</sup> Leibniz- ISAS, e.V., Dortmund, Germany<sup>5</sup> Department of Pathology and Cytology, Karolinska University Hospital and Karolinska Institute, Radiumhemmet, Stockholm, SE-17176, Sweden<sup>6</sup> School of Medicine, University of Crete, Heraklion, Greece

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# equal contribution

**633 Comparative proteomics analysis of secreted and exosome-related proteins in Hodgkin and non-Hodgkin lymphoma cells after p53-reactivation****Tsoni Theodora<sup>1</sup>, Konstantina Psatha<sup>2,5</sup>, Georgia Orfanoudaki<sup>2</sup>, George Stamatakis<sup>3</sup>, Martina Samiotaki<sup>3</sup>, Elias Drakos<sup>4</sup>, Michalis Aivaliotis<sup>2,5,6</sup>**<sup>1</sup> Department of Biology, University of Crete, Heraklion, Greece<sup>2</sup> Institute of Molecular Biology & Biotechnology, Heraklion, Greece, <sup>2</sup> School of Medicine, University of Crete, Heraklion, Greece,<sup>3</sup> Institute of Bioinnovation, Biomedical Sciences Research Center "Alexander Fleming", Athens, Greece<sup>4</sup> School of Medicine, University of Crete, Heraklion, Greece,<sup>5</sup> Functional Proteomics and Systems Biology (FunPATH), Center for Interdisciplinary Research and Innovation (CIRI-AUTH), Balkan Center, Buildings A & B, Thessaloniki.<sup>6</sup> Laboratory of Biochemistry Department of Biological Sciences and Preventive Medicine, School of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece

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**638 Design and method development of Paleoproteomics analysis in ancient human samples****Konstantina Tsiminikaki<sup>1</sup>, Georgia Orfanoudaki<sup>1</sup>, Nikolaos Kountourakis<sup>1</sup>, Elena F. Kranioti<sup>3</sup>, Konstantina Psatha<sup>1,2</sup>, Michalis Aivaliotis<sup>1,2,4\*</sup>**<sup>1</sup> Institute of Molecular Biology and Biotechnology, FORTH, Heraklion, Greece<sup>2</sup> Functional Proteomics and Systems Biology (FunPATH), Center for Interdisciplinary Research and Innovation (CIRI-AUTH), Balkan Center, Buildings A & B, Thessaloniki.<sup>3</sup> Forensic Unit, University hospital of Heraklion.<sup>4</sup> Laboratory of Biochemistry Division of Biological Sciences and Preventive Medicine, Department of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece

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Saturday 30<sup>th</sup> November 2019

## Development &amp; Differentiation

- 142 Using zebrafish to elucidate the role of the Receptor tyrosine phosphatase beta/zeta (RTPβ/ζ) in cardiovascular development**  
Stamatiki Katraki- Pavlou<sup>1,2</sup>, Evangelia Papadimitriou<sup>2</sup> and Dimitris Beis<sup>1\*</sup>  
<sup>1</sup> Zebrafish Disease Models Lab, Center for Clinical Experimental Surgery and Translational Research, Biomedical Research Foundation Academy of Athens, Greece. \*Email: dbeis@bioacademy.gr  
<sup>2</sup> Laboratory of Molecular Pharmacology, Department of Pharmacy, School of Health Sciences, University of Patras, Greece
- 508 In vivo and in vitro characterization of the transcriptional pathway controlling multiciliogenesis**  
Margarita Skamnelou<sup>1</sup>, Marina Arbi<sup>1</sup>, Spyridoula Bournaka<sup>1</sup>, Stavroula Tsaridou<sup>1</sup>, Stavros Taraviras<sup>2</sup>, Zoi Lygerou<sup>1\*</sup>  
<sup>1</sup> Laboratory of Biology, School of Medicine, University of Patras, 26504 Rio, Patras, Greece  
<sup>2</sup> Laboratory of Physiology, School of Medicine, University of Patras, 26504 Rio, Patras, Greece
- 586 Prox1 affects axon outgrowth and neuronal maturation during central nervous system development**  
Valeria Kaltezioti<sup>1</sup>, Iosifina P Foskolou<sup>1</sup>, Matthieu D Lavigne<sup>2</sup>, Maria Fousteri<sup>2</sup>, Marigoula Margarity<sup>3</sup>, Panagiotis K Politis<sup>1</sup>  
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<sup>2</sup> Biomedical Sciences Research Center 'Alexander Fleming', Athens, Greece  
<sup>3</sup> Laboratory of Human and Animal Physiology, Department of Biology, School of Natural Sciences, University of Patras, Rio, Greece
- 587 RNF113A regulates proliferation and differentiation of neural stem cells during brain development**  
Matina Tsampoula<sup>1\*</sup>, Panagiotis Politis<sup>1</sup>  
<sup>1</sup> Center for Basic Research, Biomedical Research Foundation of the Academy of Athens, Greece  
\*e-mail: ttsampoula@bioacademy.gr
- 603 Hyperglycaemic and inflammatory conditions inhibit mechanical loading-elicited osteoblastic differentiation potential of human periodontal ligament fibroblasts**  
Adamantia Papadopoulou<sup>1</sup>, Aurelie Cantele<sup>2</sup>, Alexia Todaro<sup>2</sup>, Despina Koletsis<sup>2</sup>, Theodore Eliades<sup>2</sup>, Dimitris Kletsas<sup>1\*</sup>  
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- 624 Increased dosage or deficiency of the nuclear envelope protein LBR affects the pluripotency states of mouse embryonic stem cells**  
Eleftheria Chatzantonaki<sup>1,2</sup>, Ioannis Giannios<sup>1,2</sup>, Katerina Soupsana<sup>1,3</sup>, Dimitris Stellas<sup>4</sup>, Yiorgos Sfikas<sup>5</sup>, Pantelis Topalis<sup>6</sup>, Apostolos Klinakis<sup>4</sup>, Anna Batistatou<sup>7</sup>, Anastasia S. Politou<sup>1,3</sup>, Spyros Georgatos<sup>1,2\*</sup>  
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<sup>7</sup> Department of Pathology, Faculty of Medicine, School of Health Sciences, University of Ioannina, Greece  
\*e-mail: sgeorgat@cc.uoi.gr

- 133** **Mcdas has a distinct role in multiciliogenesis during ependymal cell differentiation in the mouse brain**  
**Georgia Lokka**<sup>1</sup>, **Ioanna Papadionysiou**<sup>1</sup>, **Maria-Eleni Lalioti**<sup>1</sup>, **Evangelia Parlapani**<sup>1</sup>, **Konstantina Kaplani**<sup>1</sup>, **Zoi Lygerou**<sup>2</sup>, **Stavros Taraviras**<sup>1</sup>.  
*<sup>1</sup>Laboratory of Physiology, Medical School, University of Patras, Greece*  
*<sup>2</sup>Laboratory of General Biology, Medical School, University of Patras, Greece*
- 591** **Increased sensitivity of neural stem cells to impaired replication licensing results to replication stress-induced microcephaly**  
**Argyro Kalogeropoulou**<sup>1</sup>, **Maria Mougkogianni**<sup>1</sup>, **Marianna Iliadou**<sup>1</sup>, **Zoi Lygerou**<sup>2</sup>, **Stavros Taraviras**<sup>1</sup>  
*<sup>1</sup>Department of Physiology, School of Medicine, Patras University, Patras, Greece*  
*<sup>2</sup>Department of General Biology, School of Medicine, Patras University, Patras, Greece*
- 584** **Uncovering the molecular network for neural stem cells and ependymal cells generation in the adult brain: implications in hydrocephalus**  
**Konstantina Kaplani**<sup>1</sup>, **Maria-Eleni Lalioti**<sup>1</sup>, **Georgia Lokka**<sup>1</sup>, **Christina Kyrousi**<sup>1</sup>, **Evangelia Parlapani**<sup>1</sup>, **Nikoletta Triantopoulou**<sup>1</sup>, **Zoi Lygerou**<sup>2</sup>, **Stavros Taraviras**<sup>1</sup>  
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*<sup>2</sup>Department of General Biology, Medical School, University of Patras, Greece*

## Ageing

- 23** **A novel bioinspired proteasome activator: potential anti-ageing strategies offered by Mother Nature (but not only)**  
**Nikoletta Papaevgeniou**<sup>1</sup>, **Theano Fotopoulou**<sup>1</sup>, **Mary A. Vasilopoulou**<sup>1</sup>, **Niranjan Panat**<sup>2</sup>, **Elah Pick**<sup>2</sup>, **Amnon Golan**<sup>2</sup>, **Efstathios S. Gonos**<sup>1</sup>, **Demetris Papahatjis**<sup>1</sup>, **Theodora Calogeropoulou**<sup>1</sup>, **Maria Koufaki**<sup>1</sup> and **Niki Chondrogianni**<sup>1\*</sup>  
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*<sup>2</sup>Department of Biology, The Faculty of Natural Sciences, University of Haifa, Haifa, Israel*  
*\*e-mail: nikichon@eie.gr*
- 175** **Neurotrophin mimetic BNN27 exerts neuroprotective and neurogenic effects ameliorating cognitive impairments in the 5xFAD mouse model of Alzheimer's disease**  
**Kokkali Maria**<sup>1,2</sup>, **Karali Kanelina**<sup>1,2</sup>, **Efstathopoulos Paschalis**<sup>1</sup>, **Gravanis Achille**<sup>1,2</sup>, **Charalampopoulos Ioannis**<sup>1,2\*</sup>  
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*<sup>2</sup>Institute of Molecular Biology and Biotechnology, Foundation of Research and Technology-Hellas (IMBB-FORTH), Heraklion, Greece*  
*\*e-mail: charalamp@imbb.forth.gr*
- 571** **Adaptation of Drosophila flies to multigenerational proteome instability correlates with alternations in organismal physiology, impaired stress resistance and accelerated aging**  
**Maria S. Manola, Eleni N. Tsakiri, and Ioannis P. Trougagos**  
*Department of Cell Biology and Biophysics, Faculty of Biology, University of Athens, Panepistimiopolis, Athens 15784, Greece*
- 597** **The senolytic effect of sulforaphane on nucleus pulposus intervertebral disc cells depends on the specific conditions prevailing in the tissue**  
**Anastasios Kouroumalis**<sup>1</sup>, **Eleni Mavrogonatou**<sup>1</sup>, **Harris Pratsinis**<sup>1</sup>, **Olga D. Savvidou**<sup>2</sup>, **Panayiotis J. Papagelopoulos**<sup>2</sup>, **Dimitris Kletsas**<sup>1\*</sup>  
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Saturday 30<sup>th</sup> November 2019

## Structure and Function of Macromolecules

- 15 Evolutionary analysis of the specificities of NAT/NCS2 nucleobase transporters**  
**Ekaterini Tatsaki<sup>1</sup>, Eleni Anagnostopoulou<sup>1</sup>, Stathis Frilingos<sup>1\*</sup>**  
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*\*e-mail: efriligo@uoi.gr*
- 102 Homology modelling of Monocarboxylate Transporter 4 (MCT4); a template structural analysis approach.**  
**Eleni Papakonstantinou<sup>1</sup>, Trias Thireou<sup>1</sup>, Panagiotis Vlachoyiannopoulos<sup>2</sup>, Elias Eliopoulos<sup>1\*</sup>**  
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*<sup>2</sup>Department of Pathophysiology, National University of Athens School of Medicine, 75 Micras Asias Street, Goudi, 115 27 Athens, Greece*  
*\*e-mail: eliop@aua.gr*
- 103 Two paralogous putative deacetylase's genes of Bacillus anthracis**  
**Athena Andreou<sup>1</sup>, Petros Giastas<sup>2</sup>, Elias E. Eliopoulos<sup>1\*</sup>**  
*<sup>1</sup>Department of Biotechnology, Laboratory of Genetics, Agricultural University of Athens, Greece, <sup>2</sup>Department of Neurobiology, Hellenic Pasteur Institute, Athens, Greece*  
*\*e-mail: eliop@aua.gr*
- 125 Studying the effect of the conserved Trp mutation on Arkadia and Arkadia-2C E3 ubiquitin ligases**  
**Konstantinos D. Marousis<sup>1</sup>, Maria Birkou<sup>1</sup>, Maria D. Politi<sup>1</sup>, Anastasia Seliami<sup>1</sup>, Revekka D. Karavela<sup>1</sup>, Vasso Episkopou<sup>2</sup>, Georgios A. Spyroulias<sup>1</sup>**  
*<sup>1</sup>Department of Pharmacy, University of Patras, Patras, Greece, <sup>2</sup>Imperial College, London, United Kingdom*  
*\*email: g.a.spyroulias@upatras.gr*
- 157 Microsecond-scale molecular dynamics simulations of TYK2 kinase shed light on the structural consequences of a protective TYK2 gene polymorphism against autoimmune diseases**  
**Nastazia Lesgidou, Metaxia Vlassi\***  
*Institute of Biosciences & Applications, National Centre for Scientific Research "Demokritos", Athens, Greece*  
*\*Corresponding author: meta@bio.demokritos.gr*
- 526 Expression purification and biophysical characterization of recombinant polypeptides of hepatitis E macro domain (HEV1)**  
**Maria D. Politi<sup>1</sup>, Georgios Bouras<sup>1</sup>, Maria Birkou<sup>1</sup>, Dioni Dodi<sup>1</sup>, Konstantinos D. Marousis<sup>1</sup>, Bruno Coutard<sup>2</sup>, Georgios A. Spyroulias<sup>1</sup>**  
*<sup>1</sup>Department of Pharmacy, University of Patras, Patra, Greece*  
*<sup>2</sup>AFMB, UMR 7257 CNRS/ University of Marseille, Marseille CEDEX 9, France*

**536 Exploring the structural biology of macro domains**

Aikaterini C. Tsika<sup>1</sup>, Sofia-Antigoni Tsatsouli<sup>1</sup>, Efstathios Melekis<sup>1</sup>, Michail V. Lykouras<sup>1</sup>, Nicolas Papageorgiou<sup>2</sup>, Maria J. Maté<sup>2</sup>, Bruno Canard<sup>2</sup>, Bruno Coutard<sup>3</sup>, Detlef Bontrop<sup>4</sup>, Georgios A. Spyroulias<sup>1\*</sup>

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<sup>4</sup> Institute of Physiology II, Faculty of Medicine, University of Freiburg, D-79104 Freiburg, Germany

\*email: G.A.Spyroulias@upatras.gr

**538 The three-dimensional crystal structure of a new hyperthermostable esterolytic enzyme determined at 1.78 Å resolution**

Maria-Despoina Charavgi<sup>1</sup>, Dimitra Zarafeta<sup>1</sup>, Georgios Skretas<sup>1\*</sup>, Evangelia D. Chrysina<sup>1\*</sup>

<sup>1</sup> Institute of Chemical Biology, National Hellenic Research Foundation, Athens, Greece

\*e-mail: gskretas@eie.gr, echrysina@eie.gr

**539 The three-dimensional structure of a GH1 family 6-P-β-glycosidase from Geobacillus sp. SP24 discovered at Santorini Volcanic area**

Pandora F. Karakousi<sup>1</sup>, Magda S. Chegkazi<sup>1#</sup>, Anastasia P. Galanopoulou<sup>1,2</sup>, Dimitris G. Hatzinikolaou<sup>2\*</sup>, Evangelia D. Chrysina<sup>1\*</sup>

<sup>1</sup> Institute of Chemical Biology, National Hellenic Research Foundation, Athens, Greece, <sup>2</sup> Department of Biology, National and Kapodistrian University of Athens, Greece, # Present address: Randall Centre for Cell & Molecular Biophysics, Faculty of Life Sciences & Medicine, King's College London, London, UK

\*e-mail: dhatzini@biol.uoa.gr, echrysina@eie.gr

**540 Control of glycogen metabolism as a primary treatment of type 2 diabetes – the structural biology approach**

Dionysios D. Neofytos<sup>1</sup>, Eirini Emmanouli<sup>2</sup>, Constantinos F. Mavreas<sup>2</sup>, Thanasis Gimisis<sup>2\*</sup>, Evangelia D. Chrysina<sup>1\*</sup>

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**551 Choose the perfect ring for Human Liver Glycogen Phosphorylase. C-β-D glucopyranosyl thiazoles and imidazoles as potential anti-hyperglycaemic agents**

Efthimios Kyriakis, Theodora G.A. Solovou, Olga S.E. Papaioannou, Aikaterini G. Karra, Anastasia S. Tsagkarakou, Symeon M. Koulas, Anna-Maria G. Psarra, Vassiliki T. Skamnaki, Demetres D. Leonidas<sup>\*</sup>

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\*e-mail: ddleonidas@bio.uth.gr

**552 Human Glycogen Debranching Enzyme in the spotlight. Expression, purification and biochemical assays on the less studied participant in glycogen degradation**

Efthimios Kyriakis, Symeon M. Koulas, Anastasia S. Tsagkarakou, Theodora G.A Solovou, Christina E. Drakou, Olga S.E. Papaioannou, Vassiliki T. Skamnaki, Demetres D. Leonidas<sup>\*</sup>

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\*e-mail: ddleonidas@bio.uth.gr

- 562 NMR insights into the structural and functional properties of soluble guanylate cyclase (sGC)**  
Aikaterini I. Argyriou<sup>1</sup>, Garyfallia I. Makrynitsa<sup>1</sup>, Dimitra Georgopoulou<sup>1</sup>, Aikaterini Zompra<sup>1</sup>, Minos-Timotheos Matsoukas<sup>1</sup>, Stavros Topouzis<sup>1</sup>, Andreas Papapetropoulos<sup>2</sup>, Georgios A. Spyroulias<sup>1\*</sup>  
<sup>1</sup> Department of Pharmacy, University of Patras, GR-26504, Patras, Greece  
<sup>2</sup> School of Health Sciences, Faculty of Pharmacy, University of Athens, GR-15771, Athens, Greece  
\*e-mail: G.A.Spyroulias@upatras.gr
- 583 In crystallo assessment of the bioactivity of anthocyanins from pomegranate juice (Punica granatum L Cv Ermioni) using affinity crystallography**  
Christina E. Drakou<sup>1</sup>, Chrysvagi Gardeli<sup>2</sup>, Kalliopi Varela<sup>2</sup>, Symeon Koulas<sup>1</sup>, Anastasia Tsagkarakou<sup>1</sup>, Demetres Asimakopoulos<sup>1</sup>, Demetres Leonidas<sup>1</sup>, Vasiliki Skamnaki<sup>1\*</sup>  
<sup>1</sup> Department of Biochemistry and Biotechnology, University of Thessaly, Biopolis, Larisa  
<sup>2</sup> Department of Department of Food Science and Human Nutrition, Agricultural University of Athens, Greece  
Correspondence to vskamnaki@bio.uth.gr
- 607 NMR conformational dynamics of LAM, RRM1 and RRM2 domains of La protein**  
Georgios Bouras<sup>1</sup>, Aikaterini Argyriou<sup>1</sup>, Maria Apostolidi<sup>2</sup>, Eleni Kaliatsi<sup>2</sup>, Detlef Bentrop<sup>3</sup>, Constantinos Stathopoulos<sup>2</sup>, Georgios A. Spyroulias<sup>1\*</sup>  
<sup>1</sup> Department of Pharmacy, University of Patras, GR-26504, Patras, Greece  
<sup>2</sup> Department of Biochemistry, School of Medicine, University of Patras, GR-26504, Patras, Greece  
<sup>3</sup> Institute of Physiology II, University of Freiburg, D-79104 Freiburg, Germany
- 616 Students as Researchers: a journey from school to the “Protein Architecture and Biomolecular NMR” laboratory**  
Chara-Athanasia Papatsori<sup>1</sup>, Peni Nikolopoulou<sup>1</sup>, Fotis Papadopoulos<sup>1</sup>, Sofia-Antigoni Tsatsouli<sup>2</sup>, Maria Politi<sup>2</sup>, Georgios A. Spyroulias<sup>2\*</sup>  
<sup>1</sup> Arsakeia – Tositseia Schools, Patra, Greece  
<sup>2</sup> Department of Pharmacy, University of Patras, Patra, Greece
- 626 The three-dimensional crystal structure of a new  $\beta$ -glucosidase from the thermophilic bacterium Caldicellulosiruptor saccharolyticus**  
Anastasia I. Sotiropoulou<sup>1,2</sup>, Dimitris G. Hatzinikolaou<sup>2\*</sup>, Evangelia D. Chrysin<sup>1\*</sup>  
<sup>1</sup> Institute of Chemical Biology, National Hellenic Research Foundation, Athens, Greece  
<sup>2</sup> Department of Biology, National and Kapodistrian University of Athens, Greece, # Present address: Randall Centre for Cell & Molecular Biophysics, Faculty of Life Sciences & Medicine, King's College London, London, UK  
\*e-mail: dhatzini@biol.uoa.gr, echrysin@eie.gr
- 628 Structural studies of intrinsically disordered proteins foster their potential to be exploited as components of new formulations for market-oriented pharmaceutical products**  
Maria-Despoina Charavgi<sup>1</sup>, Pandora F. Karakousi<sup>1</sup>, Aristeidis Papagiannopoulos<sup>2</sup>, Ioulia Tseti<sup>3</sup>, Stergios Pispas<sup>2</sup>, Evangelia D. Chrysin<sup>1\*</sup>  
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<sup>2</sup> Theoretical & Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece  
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\*e-mail: echrysin@eie.gr

Saturday 30<sup>th</sup> November 2019

## Regulation of Gene Expression &amp; Epigenetics

**21 The transcription factor BCL6 controls early development of innate-like T cells****Marianthi Gioulbasani<sup>1</sup>, Alexandros Galaras<sup>1,5</sup>, Sofia Grammenoudi<sup>1</sup>, Panagiotis Moulos<sup>1</sup>, Alexander Dent<sup>2</sup>, Mikael Sigvardsson<sup>3</sup>, Pantelis Hatzis<sup>1</sup>, Barbara L. Kee<sup>4</sup>, Mihalis Verykokakis<sup>1\*</sup>**

<sup>1</sup>Institute for Fundamental Biomedical Research, BSRC "Alexander Fleming", Vari, Attiki, Greece, <sup>2</sup>Department of Microbiology and Immunology, Indiana University School of Medicine, Indianapolis, IN, USA, <sup>3</sup>Department of Clinical and Experimental Medicine, Experimental Hematopoiesis Unit, Faculty for Health Sciences, Linkoping University, 58183 Linkoping, Sweden, <sup>4</sup>Department of Pathology and Committee on Immunology, University of Chicago, Chicago, IL, USA, <sup>5</sup>Department of Biochemistry and Biotechnology, University of Thessaly, Biopolis, Larisa, Greece

\*e-mail: verykokakis@fleming.gr

**48 Control *mdr1* mRNA translation by Src via the phosphorylation of mRNA binding protein IMP1****Andromachi Lambrianidou<sup>1\*</sup>, Theoni Trangas<sup>1</sup>.**

<sup>1</sup>Biochemistry Lab, Department of Biological Applications and Technology, University of Ioannina, Ioannina, Greece

\*e-mail: mahilambrianidou@hotmail.com

**57 Quantification of COMP and TIMP3 genes in blood and use as potent biomarkers for osteoarthritis****Maria Pitou<sup>1\*</sup>, Rigini Papi<sup>1</sup>, Christina Sutherland<sup>1</sup>, Melpomeni Karatza<sup>1</sup>, Theodora Choli-Papadopoulou<sup>1</sup>**

<sup>1</sup>Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece

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**65 Interchromosomal interaction between Interleukin-2 promoter and HIV-1-LTR may account for HIV-1 latency and a stochastic choice of expression between IL-2 and HIV-1 in T helper cells****Spyridoula Anastasopoulou<sup>\*</sup>, Ioannis Panagoulas, Tassos Georgakopoulos, Athanasia Mouzaki**

Laboratory of Immunohematology, Division of Hematology, Department of Internal Medicine, Medical School, University of Patras, Patras, Greece

**86 Dark genome and its regulation by long non-coding RNAs****Katerina Pierouli<sup>1,2</sup>, George N. Goulielmos<sup>3</sup>, George Chrousos<sup>2,4</sup>, Elias Eliopoulos<sup>1</sup>, Dimitrios Vlachakis<sup>1,2,5</sup>**

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<sup>4</sup>Center for Adolescent Medicine and UNESCO Chair on Adolescent Health Care, First Department of Pediatrics, Medical School, National and Kapodistrian University of Athens, Aghia Sophia Children's Hospital, Athens 11527, Greece

<sup>5</sup>School of Informatics, Faculty of Natural & Mathematical Sciences, King's College London, London, U.K.

**140 Functional role of the mitotic kinase Haspin in mouse embryonic stem cells and male gametes****Theofani Kiosse<sup>1</sup>, Eleftheria Karanika<sup>1,3</sup>, Katerina Soupsana<sup>2,3</sup>, Anastasia Christogianni<sup>1</sup>, Anastasia Politou<sup>2,3</sup>, Spyros Georgatos<sup>\*1,3</sup>**

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- 164** **The role of SAF-A and its interaction with nuclear actin in the epigenetic regulation of nuclear architecture**  
Evangelia Athanailidou<sup>1,3,4</sup>, Carmen Eckerich<sup>1,3</sup>, Evangelos Kolettas<sup>2,3</sup> and Frank O. Fackelmayer<sup>1,3\*</sup>  
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<sup>4</sup>Department of Biological Applications & Technology, University of Ioannina, 45110 Ioannina, Greece  
\*To whom correspondence should be addressed at: frank@fackelmayer.eu
- 505** **Species-specific domains of *S. aureus* glyS T-box interfere with transcriptional attenuation**  
Nikoleta Giarimoglou<sup>1</sup>, David Dermoniotis<sup>1</sup>, Ioanna Patsi<sup>1</sup>, Shuang Li<sup>2</sup>, Vassiliki Stamatopoulou<sup>1</sup>, Jinwei Zhang<sup>2</sup> and Constantinos Stathopoulos<sup>1\*</sup>  
<sup>1</sup>Department of Biochemistry, School of Medicine, University of Patras, 26504, Patras, Greece  
<sup>2</sup>Department of Molecular and Cellular Physiology, School of Medicine, Yale University, West Haven, CT 06516, USA  
\*e-mail: cstath@upatras.gr
- 506** **Transcriptomic analysis on CRISPR-Cas9 knockout cells implicates RNase ZS in cell migration and long non-coding RNA biogenesis**  
Athanasios-Nasir Shaukat, Argyris Alexiou, Eleni Kaliatsi, Angeliki Bania, Ilias Skeparnias, Constantinos Stathopoulos\*  
Department of Biochemistry, School of Medicine, University of Patras, 26 504 Patras, Greece  
\*e-mail: cstath@upatras.gr
- 511** **Methylation pattern of the novel deadenylase PNLDC1 during mouse embryonic stem cells differentiation**  
Christos Katsioulas<sup>1</sup>, Ilias Skeparnias<sup>1</sup>, Vasiliki Chondrou<sup>2</sup>, Athanasios-Nasir Shaukat<sup>1</sup>, Dimitrios Anastasakis<sup>1,3</sup>, Arguro Sgourou<sup>2</sup> and Constantinos Stathopoulos<sup>1\*</sup>  
<sup>1</sup>Department of Biochemistry, School of Medicine, University of Patras, Greece  
<sup>2</sup>Hellenic Open University, Patras, Greece.  
<sup>3</sup>RNA Molecular Biology Group, Laboratory of Muscle Stem Cells and Gene Regulation, NIAMS, NIH, USA  
\*To whom correspondence should be addressed e-mail: cstath@med.upatras.gr
- 516** **Modulatory effects of human La protein overexpression in cancer cell lines on RNA polymerase III transcripts, tRFs and cell cycle regulation.**  
Eleni Kaliatsi<sup>1</sup>, Maria Balasi<sup>1</sup>, Athanasios-Nasir Shaukat<sup>1</sup>, Ilias Skeparnias<sup>1</sup>, Aikaterini I. Argyriou<sup>2</sup>, Georgios Bouras<sup>2</sup>, Georgios A. Spyroulias<sup>2</sup> and Constantinos Stathopoulos<sup>1</sup>  
<sup>1</sup>Department of Biochemistry, School of Medicine, University of Patras, Greece  
<sup>2</sup>Department of Pharmacy, University of Patras, Greece  
\*To whom correspondence should be addressed e-mail: cstath@med.upatras.gr
- 523** **Mitochondrial stress in mammalian cells-the mevalonate pathway.**  
Panagiota Batzali, Foteini Filippopoulou, Christina Petropoulou, Dionysios Chartoumpakis and Ioannis Habeos.  
Department of Internal Medicine, Division of Endocrinology, School of Medicine, University of Patras, 26 504 Patras, Greece.

- 524 Helicobacter pylori infection of gastric epithelial cells reveals association with factors regulating cholesterol biosynthesis**  
Chrysoula Kartsiouka<sup>1,2</sup>, Eleftherios Kontizas<sup>1</sup>, Timokratis Karamitros<sup>1</sup>, Andreas Mentis<sup>1</sup>, George Diallinas<sup>2</sup>, and Dionyssios Sgouras<sup>1\*</sup>  
<sup>1</sup>Laboratory of Medical Microbiology, Hellenic Pasteur Institute, Athens  
<sup>2</sup>Department of Biology, National and Kapodistrian University of Athens, Athens  
\*Correspondance should be addressed to: email: sgouras@pasteur.gr
- 543 Deciphering the role of PARN in circadian gene expression**  
Rafailia A.A. Beta<sup>1</sup>, Amalia Kanoura<sup>1</sup>, Dimitrios Dalkidis<sup>1</sup>, Zoi V. Arsenopoulou<sup>1</sup>, Dimitris Kletsas<sup>2</sup>, Nikolaos A.A. Balatsos<sup>1\*</sup>  
<sup>1</sup>Department of Biochemistry and Biotechnology, University of Thessaly, Biopolis 415 00, Larissa, Greece  
<sup>2</sup>Laboratory of Cell Proliferation & Ageing, Institute of Biosciences & Applications, National Centre for Scientific Research 'Demokritos', Athens, Greece.  
\*e-mail: balatsos@bio.uth.gr
- 544 Expression of PD-L1 in two non-small cell lung cancer cell lines, A549 and H1299, under hypoxic and acidic conditions.**  
Vasiliki Toufaki<sup>1\*</sup>, Avgi Tsolou<sup>1</sup>, Ioannis Lamprou<sup>1</sup>, Achilleas Mitrakas<sup>1</sup>, Dimitris Koparanis<sup>1</sup>, Aikaterini Skeva<sup>1</sup>, Erasmia Xanthopoulou<sup>1</sup>, Mara Magdäu<sup>1</sup>, Alexandra Giatromanolaki<sup>2</sup>, Michael I. Koukourakis<sup>1</sup>  
<sup>1</sup>Department of Radiotherapy/Oncology, Radiobiology and Radiopathology Unit, Department of Medicine - Democritus University of Thrace, Alexandroupolis, Greece, <sup>2</sup>Department of Pathology, Department of Medicine - Democritus University of Thrace, Alexandroupolis, Greece  
\*e-mail: vasiatoufaki97@gmail.com
- 557 NR5A2 protects neuronal cells from oxidative stress-induced apoptosis**  
Efstathia Tetringa, Katerina Dimitropoulou, Matina Tsampoula, Dimitrios Gkikas and Panagiotis K. Politis  
Center for Basic Research, Biomedical Research Foundation of the Academy of Athens, 4 Soranou Efessiou Street, 115 27 Athens, Greece.
- 573 Investigating the role of lnc-IGSF9 in intestinal homeostasis and carcinogenesis.**  
Vasiliki Zarkou<sup>1,2</sup>, Alexandros Galaras<sup>1,3</sup>, Vaggelis Harokopos<sup>1</sup>, Sofia Grammenoudi<sup>1</sup>, Marietta Armaka<sup>1</sup>, Martina Samiotaki<sup>1</sup>, George Panayotou<sup>1</sup>, Panagiotis Moulos<sup>1</sup>, Antonis Giakountis<sup>1,3</sup>, Pantelis Hatzis<sup>1\*</sup>  
<sup>1</sup>Biomedical Sciences Research Center 'Alexander Fleming', 16672 Vari, Greece  
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<sup>3</sup>Department of Biochemistry and Biotechnology, University of Thessaly, 41500 Larisa, Greece  
\*e-mail: hatzis@fleming.gr
- 629 Deciphering epigenetic mechanisms in human lymphoma through integrated transcriptomics and proteomics analysis**  
Konstantina Psatha<sup>#1,2</sup>, Stefania Maniatsi<sup>#1,3</sup>, Vasiliki Lathira<sup>1,3</sup>, Laxmikanth Kollipara<sup>4</sup>, George Z Rassidakis<sup>5</sup>, Elias Drakos<sup>6</sup>, Albert Sickmann<sup>4</sup>, Michalis Aivaliotis<sup>1,2,3\*</sup>  
<sup>1</sup>Functional Proteomics and Systems Biology (FunPATH), Center for Interdisciplinary Research and Innovation (CIRI-AUTH), Thessaloniki, Greece.  
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<sup>5</sup>Department of Pathology and Cytology, Karolinska University Hospital and Karolinska Institute, Radiumhemmet, Stockholm, SE-17176, Sweden.  
<sup>6</sup>Department of Pathology, School of Medicine, University of Crete, Heraklion, Greece.  
#Equal contribution  
\*Correspondence: aivaliot@imbb.forth.gr

- 630** **The role of histone demethylases PHF2 and PHF8 in macrophage activation and metabolism**  
Maria G. Daskalaki<sup>1,2\*</sup>, Konstantinos Axarlis<sup>1,2</sup>, Christina Efraimoglou<sup>1,2</sup>, Sotirios Kampranis<sup>3</sup>, Christos Tsatsanis<sup>1,2</sup>  
<sup>1</sup>Laboratory of Clinical Chemistry, Medical School, University of Crete, Heraklion, Greece,  
<sup>2</sup>Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology, Heraklion, Crete, Greece  
<sup>3</sup>University of Copenhagen, Thorvaldsensvej 40, 1871 Frederiksberg C, Denmark  
\*e-mail: m.daskalaki@med.uoc.gr
- 129** **N6-Methyladenine in Mammalian DNA**  
Karolos Douvlataniotis, Maike Bensberg, Antonio Lentini, Björn Gylemo, Colm E. Nestor\*  
<sup>1</sup>Department of Clinical and Experimental Medicine, Linköping University, Sweden  
\*e-mail: colm.nestor@liu.se
- 594** **Identification of patients with Alcohol-related Liver Disease (ALD) by a highly accurate serum panel of four microRNAs.**  
Stella Georgiou<sup>1</sup>, Vasiliki Pantazopoulou<sup>1</sup>, Maria Lala<sup>1</sup>, Vassiliki Filippa<sup>1</sup>, Nikolaos Kalavros<sup>1</sup>, Anastasios Delis<sup>1</sup>, Jonel Trebicka<sup>2</sup>, Maja Thiele<sup>3,4,5</sup>, Aleksander Krag<sup>3,4,5</sup>, Ema Anastasiadou<sup>1\*</sup>; GALAXY consortium  
<sup>1</sup>Biomedical Research Foundation of the Academy of Athens, Greece, <sup>2</sup>Goethe University, Frankfurt, Germany, <sup>3</sup>Odense University Hospital, Denmark, <sup>4</sup>Odense University Hospital, Denmark, <sup>5</sup>University of Southern Denmark, Odense, Denmark. \*e-mail: anastasiadou@bioacademy.gr
- 67** **Mechanism of Tip60 acetyltransferase mediated IL-2 transcriptional regulation**  
Ioanna Aggeletopoulou\*, Ioannis Panagoulas, Fotis Karagiannis, Panagiota Davoulou, Tassos Georgakopoulos, Athanasia Mouzaki  
Laboratory of Immunohematology, Division of Hematology, Department of Internal Medicine, Faculty of Medicine, University of Patras, Patras, Greece
- 63** **Ets-2 is implicated in the regulation of expression of key lymphotropic factors**  
Panagiota Davoulou\*, Ioanna Aggeletopoulou, Ioannis Panagoulas, Athanasia Mouzaki  
Laboratory of Immunohematology, Division of Hematology, Department of Internal Medicine, Faculty of Medicine, University of Patras, Patras, Greece

**Saturday 30<sup>th</sup> November 2019**

### Stem Cells, Tissue Morphogenesis & Regeneration

- 58** **Short peptides of the C-terminal region of TGF-β1 induce in vivo chondrogenesis and reduce metalloprotease activity**  
Maria Pitou<sup>1\*</sup>, Rigini Papi<sup>1</sup>, Theodora Choli-Papadopoulou<sup>1</sup>  
<sup>1</sup>Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece  
\*e-mail: pitoumaria@yahoo.com
- 62** **Production of self-assembling “recombinamer” proteins destined for bio-active artificial nanonetworks formation**  
Paraskevas Lamprou<sup>1\*</sup>, Aglaea Mantsou<sup>1</sup> and Theodora Choli-Papadopoulou<sup>1</sup>  
<sup>1</sup>Laboratory of Biochemistry, School of Chemistry, Aristotle University of Thessaloniki, Greece  
\*e-mail: pa.lamprou@yahoo.com

- 570** **Disruption of SVZ neurogenesis and ectopic recruitment of neuroblasts following brain chemical lesion**  
**Irini Thanou<sup>\*1</sup>, Paraskevi N. Koutsoudaki<sup>1,2</sup>, Federico Luzzati<sup>3</sup> and Dimitra Thomaidou<sup>1</sup>**  
<sup>1</sup> Department of Neurobiology, Hellenic Pasteur Institute, 127 Vas. Sofias Avenue, 11521 Athens, Greece  
<sup>2</sup> Laboratory of Histology-Embryology, School of Medicine, National and Kapodistrian University of Athens  
<sup>3</sup> Neuroscience Institute Cavalieri Ottolenghi (NICO), University of Turin, Italy  
<sup>4</sup> Institution Name, City, Country, 2 Research Center, Thessaloniki, Greece, 3 Department, Institution, Town, Country  
<sup>\*</sup>e-mail: irthanou@pasteur.gr
- 637** **Neurogenesis and senescence in brain stem cell populations in relation to the architecture of the microenvironment: The role of the niche**  
**Maria Anesti<sup>1\*</sup>, Vassilis Gorgoulis<sup>2</sup>, Ilias Kazanis<sup>1,3</sup>**  
<sup>1</sup> Laboratory of Developmental Biology, Department of Biology, University of Patras, Rio, Greece  
<sup>2</sup> Molecular Carcinogenesis Group, Department of Histology and Embryology, Medical School, National and Kapodistrian University of Athens, Athens, Greece  
<sup>3</sup> Wellcome Trust – MRC Cambridge Stem Cell Institute & Department of Clinical Neurosciences, University of Cambridge, Cambridge, United Kingdom  
<sup>\*</sup>e-mail: anestimaria@gmail.com
- 641** **VE-cadherin-mediated Adherens Junctions in early cardiovascular progenitor cells**  
**Violetta A. Maltabe<sup>1,2</sup>, Sandra Gonzalez Malagon<sup>2,3</sup> and Panos Kouklis<sup>1,2\*</sup>**  
<sup>1</sup> Laboratory of Biology, Medical School, University of Ioannina, Greece  
<sup>2</sup> Department of Biomedical Research, Institute of Molecular Biology & Biotechnology, Foundation of Research and Technology-Hellas, University Campus, 45110 Ioannina, Greece  
<sup>3</sup> Department of Biological Applications and Technology, University of Ioannina  
<sup>\*</sup>e-mail: pkouklis@uoi.gr
- 20** **Evaluation of vitrified Wharton's Jelly tissue as a potential biomaterial for regenerative medicine applications**  
**Panagiotis Mallis<sup>1\*</sup>, Jerome Zoidakis<sup>2</sup>, Antonia Vlahou<sup>2</sup>, Catherine Stavropoulos- Giokas<sup>1</sup>, Efstathios Michalopoulos<sup>1</sup>**  
<sup>1</sup> Hellenic Cord Blood Bank, Biomedical Research Foundation Academy of Athens, Greece  
<sup>2</sup> Bioechnology Division, Biomedical Research Foundation, Academy of Athens, Greece.  
<sup>\*</sup>e-mail: pmallis@bioacademy.gr
- 45** **Transcriptome reprogramming and myeloid skewing in hematopoietic stem and progenitor cells in systemic lupus erythematosus**  
**Maria Grigoriou<sup>1,3\*</sup>, Anastasia Filia<sup>1</sup>, Pavlos Pavlidis<sup>2</sup>, Theodora Manolakou<sup>1,3</sup>, George K Bertsias<sup>4</sup>, Panayotis Verginis<sup>5</sup>, Ioannis Mitroulis<sup>6,7</sup>, Dimitrios T Boumpas<sup>1,3,8</sup>, Aggelos Banos<sup>1</sup>**  
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<sup>2</sup> Institute of Computer Science, Foundation for Research and Technology-Hellas, Heraklion, Crete, Greece  
<sup>3</sup> 4th Department of Internal Medicine, Attikon University Hospital and Joint Rheumatology Program, National and Kapodistrian University, Athens, Greece  
<sup>4</sup> Rheumatology, Clinical Immunology and Allergy, University of Crete School of Medicine, Heraklion, Greece  
<sup>5</sup> Laboratory of Immune Regulation and Tolerance, Autoimmunity and Inflammation, Biomedical Research Foundation of the Academy of Athens, Athens, Greece  
<sup>6</sup> Department of Hematology and Laboratory of Molecular Hematology, Department of Medicine, Democritus University of Thrace, Alexandroupolis, Greece  
<sup>7</sup> Institute for Clinical Chemistry and Laboratory Medicine, University Hospital and Faculty of Medicine Carl Gustav Carus of TU Dresden, Dresden, Germany; National Center for Tumor Diseases (NCT), Partner Site Dresden, Germany of the German Cancer Research Center (DKFZ), Heidelberg, Germany, and of the Faculty of Medicine and University Hospital Carl Gustav Carus, TU Dresden, Dresden, Germany, and of the Helmholtz Association/Helmholtz Zentrum Dresden-Rossendorf (HZDR), Dresden, Germany  
<sup>8</sup> Rheumatology-Clinical Immunology Unit, Medical School, University of Cyprus, Nicosia, Cyprus

Saturday 30<sup>th</sup> November 2019

## DNA damage/repair

- 39** **Fatty acid based lipidomics and oxidative stress-induced DNA damage assessment in tumor-bearing mice**  
**Marios G. Krokidis<sup>1</sup>, Maria Louka<sup>2</sup>, Eleni K. Efthimiadou<sup>1,3</sup>, Sevasti Zervou<sup>1</sup>, Kyriakos Papadopoulos<sup>1</sup>, Anastasia Hiskia<sup>1</sup>, Carla Ferreri<sup>2,4</sup> and Chrysostomos Chatgialiloglu<sup>2,4\*</sup>**  
*<sup>1</sup>National Center for Scientific Research "Demokritos", Institute of Nanoscience and Nanotechnology, 15310, Athens, Greece, <sup>2</sup>Lipidomics Laboratory, Lipinutragen Srl, Via Piero Gobetti 101, 40129, Bologna, Italy, <sup>3</sup>Department of Chemistry, National and Kapodistrian University of Athens, 15784, Athens, Greece, <sup>4</sup>ISOF, Consiglio Nazionale delle Ricerche, Via Piero Gobetti, 40129, Bologna, Italy*  
*\*e-mail: chrys@isof.cnr.it*
- 69** **Defective DNA repair machinery and chromatin organization in patients with Head and Neck Squamous Cell Carcinoma**  
**Vassilis L. Souliotis<sup>1,2,\*</sup>, Maria Gkatzamanidou<sup>3</sup>, Lida Krikoni<sup>1</sup>, Amanda Psyrris<sup>3</sup>**  
*<sup>1</sup>Institute of Chemical Biology, National Hellenic Research Foundation, Athens, Greece*  
*<sup>2</sup>First Department of Propaedeutic Internal Medicine and Joint Rheumatology Program, National and Kapodistrian University of Athens Medical School, Athens, Greece*  
*<sup>3</sup>Section of Medical Oncology, Department of Internal Medicine, Faculty of Medicine, Attikon University Hospital, National and Kapodistrian University of Athens Medical School, Athens, Greece*  
*\*e-mail: vls@eie.gr*
- 70** **Endogenous DNA damage is implicated in the onset and progression of Multiple Myeloma as well as in the outcome of therapeutic treatment**  
**Vassilis L. Souliotis<sup>1,2,\*</sup>, Maria Gkatzamanidou<sup>3,4</sup>, Evangelos Terpos<sup>3</sup>, Nikhil C. Munshi<sup>4</sup>, Meletios A. Dimopoulos<sup>3</sup>**  
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*<sup>2</sup>First Department of Propaedeutic Internal Medicine and Joint Rheumatology Program, National and Kapodistrian University of Athens Medical School, Athens, Greece*  
*<sup>3</sup>Department of Clinical Therapeutics, National and Kapodistrian University of Athens Medical School, Athens, Greece*  
*<sup>4</sup>Department of Medical Oncology, Jerome Lipper Multiple Myeloma Center, Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA, USA*  
*\*e-mail: vls@eie.gr*
- 93** **The role of Geminin-Cdt1 complex in the maintenance of genome integrity in apical radial glia cells during mid-neurogenesis**  
**Eleni Nikolopoulou<sup>1</sup>, Argiro Kalogeropoulou<sup>1</sup>, Marianna Iliadou<sup>1</sup>, Zoi Lygerou<sup>2</sup>, Stavros Taraviras<sup>1</sup>**  
*<sup>1</sup>Laboratory of Physiology, School of Medicine, University of Patras, Patras, Greece*  
*<sup>2</sup>Laboratory of General Biology, School of Medicine, University of Patras, Patras, Greece*
- 104** **Exploiting cancer dependencies in abnormal DNA licensing**  
**Nibal Badra<sup>1</sup>, Michalis Petropoulos<sup>1</sup>, Marina Arbi<sup>1</sup>, Juha K. Rantala<sup>2</sup>, Stavros Taraviras<sup>3</sup> and Zoi Lygerou<sup>1\*</sup>**  
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*<sup>2</sup>Misvik Biology, Turku, Finland*  
*<sup>3</sup>Department of Physiology, School of Medicine, University of Patras, Greece*

- 109 Contribution of the Break Induced Replication repair pathway in gene amplification upon re-replication in fission yeast**  
**Ourania Preza<sup>1</sup>, Patroula Nathanailidou<sup>1</sup>, Eirini Kaselimi<sup>1</sup>, Stavros Taraviras<sup>2</sup>, Zoi Lygerou<sup>1\*</sup>**  
<sup>1</sup>Laboratory of General Biology, School of Medicine, University of Patras, Greece, <sup>2</sup>Laboratory of Physiology, School of Medicine, University of Patras, Greece  
\*e-mail: lygerou@upatras.gr
- 117 Assessing the possible implication of the licensing factor CDT1 in double strand break repair**  
**Styllianos Symeon Promponas<sup>1</sup>, Andreas Panagopoulos<sup>1</sup>, Michalis Petropoulos<sup>1</sup>, Stavros Taraviras<sup>2</sup>, Zoi Lygerou<sup>1</sup>**  
<sup>1</sup> University of Patras, Medical School, Laboratory of General Biology, Rio, Patras, Greece  
<sup>2</sup> University of Patras, Medical School, Laboratory of Physiology, Rio, Patras, Greece
- 534 Impact of Helicobacter pylori infection and its major virulence factor CagA on DNA damage repair**  
**Eleftherios Kontizas<sup>1,3</sup>, Spiros Tastsoglou<sup>2</sup>, Timokratis Karamitros<sup>1</sup>, Yiannis Karayiannis<sup>1,3</sup>, Panagoula Kollia<sup>3</sup>, Artemis Hatzigeorgiou<sup>2</sup>, Andreas Mentis<sup>1</sup> & Dionyssios Sgouras<sup>1\*</sup>**  
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<sup>2</sup> DIANA-Lab, Hellenic Pasteur Institute, Athens, Greece  
<sup>3</sup> Department of Genetics and Biotechnology, Faculty of Biology, School of Science, National and Kapodistrian University of Athens, Greece  
\*e-mail: sgouras@pasteur.gr
- 549 Acute exposure to Etoposide does not activate DNA damage checkpoints in Meiosis I of human oocytes**  
**Kristi Agapitou<sup>1,2\*</sup>, Konstantina Niaka<sup>1</sup>, Alexandros Pailas<sup>1</sup>, Petros Marangos<sup>1,3</sup>**  
<sup>1</sup> Department of Applications and Technology, University of Ioannina, Ioannina 45110, Greece  
<sup>2</sup> Institute of LIFE Fertility Unit, IASO Maternity Hospital, Athens, 15123, Greece  
<sup>3</sup> Institute of Molecular Biology and Biotechnology, FORTH, Department of Biomedical Research, Ioannina, Greece  
\*kragapitou@yahoo.gr
- 639 DNA damage response is activated in Neural Stem Cells lacking Geminin during cortical development**  
**Marianna Iliadou<sup>1</sup>, Argyro Kalogeropoulou<sup>1</sup>, Maria Mougkogianni<sup>1</sup>, Eleni Nikolopoulou<sup>1</sup>, Zoi Lygerou<sup>2</sup>, Stavros Taraviras<sup>1\*</sup>**  
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\*e-mail: taraviras@med.upatras.gr
- 120 Targeting origin over-licensing for development of cancer-specific treatment**  
**Michalis Petropoulos<sup>1</sup>, Nickolaos Karantzelis<sup>2</sup>, Nickolaos Nikiforos Giakoumakis<sup>1</sup>, Stefan Terjung<sup>3</sup>, Rainer Pepperkok<sup>3</sup>, Joe Lewis<sup>4</sup>, Anastassis Perrakis<sup>5</sup>, Stavros Taraviras<sup>2</sup>, Zoi Lygerou<sup>1\*</sup>**  
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<sup>2</sup> Department of Physiology, University of Patras, Patras, Greece  
<sup>3</sup> Advanced Light Microscopy Facility, EMBL Heidelberg, Heidelberg, Germany  
<sup>4</sup> Chemical Biology Core Facility, EMBL Heidelberg, Heidelberg, Germany  
<sup>5</sup> Department of Biochemistry, Netherlands Cancer Institute, Amsterdam, The Netherlands
- 542 The role of HURP protein in human breast carcinogenesis**  
**Christos Efstathiou<sup>1</sup>, Petros Antonoglou<sup>1</sup>, Eugene Eftalitsidis<sup>1</sup>, Ilona Kesisova<sup>1</sup>, Margy Koffa<sup>1\*</sup>**  
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\*e-mail: mkoffa@mbg.duth.gr

Sunday 1<sup>st</sup> December 2019

## Cell Organization &amp; Function

- 11** **Under natural oxidative stress, the leaves of the wild growing seasonally dimorphic *Phlomis fruticosa*, massively produce an animal neurotransmitter synthesizing enzyme**  
**Aikaterina L. Stefi<sup>1</sup>, Nikolaos Christodoulakis<sup>1</sup>, Dido Vssilacopoulou<sup>2\*</sup>,**  
<sup>1</sup> Department of Botany, Faculty of Biology, National and Kapodistrian University of Athens, Ilisia, Athens - 15701, Hellas (GR).  
<sup>2</sup> Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Ilisia, Athens - 15701, Hellas (GR).  
\*e-mail: didovass@biol.uoa.gr
- 12** **The combined environmental stress on the leaves of *Olea europaea* L. and the relief mechanism through biosynthesis of certain secondary metabolites shared by plants and animals**  
**Aikaterina L. Stefi<sup>1,3</sup>, Efthymia Routsis<sup>2</sup>, Panagiotis Stathopoulos<sup>2</sup>, Alexios-Leandros Skaltsounis<sup>2</sup>, Dido Vassilacopoulou<sup>3</sup>, Nikolaos S. Christodoulakis<sup>1\*</sup>**  
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<sup>2</sup> Department of Pharmacognosy and Natural Products Chemistry, Faculty of Pharmacy, National and Kapodistrian University of Athens, Athens - 15771, Hellas (GR)  
<sup>3</sup> Department of Biochemistry and Molecular Biology, Faculty of Biology, National and Kapodistrian University of Athens, Ilisia, Athens - 15701, Hellas (GR).  
\*e-mail: nchristo@biol.uoa.gr
- 29** **Nuclear localization of CD24 in breast cancer cells**  
**Amanda Chantziou<sup>1</sup>, Hara Polioudaki<sup>1\*</sup>, Kostas Theodorakis<sup>2</sup>, Elena Gkimprxi<sup>1</sup>, George Notas<sup>3</sup>, Marilena Kampa<sup>3</sup>, Elias Castanas<sup>3</sup>, Panagiotis A. Theodoropoulos<sup>1\*</sup>**  
<sup>1</sup> Laboratory of Biochemistry, School of Medicine, University of Crete, Heraklion, Greece  
<sup>2</sup> Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology, Heraklion, Crete, Greece; Laboratory of Neurosciences, School of Medicine, University of Crete, Heraklion, Greece  
<sup>3</sup> Laboratory of Experimental Endocrinology, School of Medicine, University of Crete, Heraklion, Greece
- 46** **Lumican stimulates the growth of HTB94 chondrosarcoma cells**  
**Eirini Maria Giatagana<sup>1</sup>, Aikaterini Berdiaki<sup>1</sup>, Antonis Papoutsidakis<sup>1</sup>, George N. Tzanakakis<sup>1</sup>, Dragana Nikitovic<sup>1\*</sup>**  
Laboratory of Anatomy-Histology-Embryology, School of Medicine, University of Crete, Heraklion, Greece n \*e-mail: nikitovic@uoc.gr
- 68** **Intracellular trafficking of G protein-coupled estrogen receptor 1, GPER1**  
**Rodanthi Vamvoukaki<sup>1\*</sup>, Konstantina Kalyvianaki<sup>1</sup>, Panagiotis Malamos<sup>1</sup>, Marilena Kampa<sup>1</sup>, Elias Castanas<sup>1</sup>, George Notas<sup>1</sup>**  
<sup>1</sup> Laboratory of Experimental Endocrinology, School of Medicine, University of Crete, Heraklion, Greece  
\*e-mail: rodoulavamv@gmail.com
- 105** **DNA rereplication elicits increased genetic instability at the ribosomal RNA genes and aberrant nucleolar structures in fission yeast**  
**Eirini Kasselimi<sup>1</sup>, Patroula Nathanailidou<sup>1</sup>, Nickolaos-Nikiforos Giakoumakis<sup>1</sup>, Stavros Taraviras<sup>2</sup> and Zoi Lygerou<sup>1\*</sup>**  
<sup>1</sup> University of Patras, School of Medicine, Laboratory of Biology, Rio, Patras, Greece  
<sup>2</sup> University of Patras, School of Medicine, Laboratory of Physiology, Rio, Patras, Greece  
\*e-mail: lygerou@upatras.gr

**119 Geminin superfamily in primary cilium formation**Spyridoula Bournaka<sup>1</sup>, Marina Arbi<sup>1</sup>, Stavroula Tsaridou<sup>1</sup>, Margarita Skamnelou<sup>1</sup>, Stavros Taraviras<sup>2</sup>, Zoi Lygerou<sup>1\*</sup><sup>1</sup>Laboratory of Biology, School of Medicine, University of Patras, Rio, Patras, Greece<sup>2</sup>Laboratory of Physiology, School of Medicine, University of Patras, Rio, Patras, Greece

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**124 Cellular response to hypoxia involves alteration of nuclear architecture by rapid Lamin B Receptor redistribution along the nuclear envelope**

Chrysa Taze, Eleni Georgatsou, George Simos, Ilias Mylonis\*

Laboratory of Biochemistry, Faculty of Medicine, University of Thessaly, 41500 Biopolis, Larissa, Greece

\*e-mail: mylonis@med.uth.gr

**134 Functional characterization of Mcidas during the cell cycle**Stavroula Tsaridou<sup>1</sup>, Marina Arbi<sup>1</sup>, Vassiliki Petroulaki<sup>1</sup>, Spyridoula Bournaka<sup>1</sup>, Margarita Skamnelou<sup>1</sup>, Stavros Taraviras<sup>2</sup>, Zoi Lygerou<sup>1</sup><sup>1</sup>Laboratory of Biology, School of Medicine, University of Patras, Rio, Patras, Greece<sup>2</sup>Laboratory of Physiology, School of Medicine, University of Patras, Rio, Patras, Greece**615 Investigating cell-matrix adhesion and Talin's function in endothelial cells**G. Rouni<sup>1</sup>, M. Samiotaki<sup>1</sup>, P. Nikolopoulou<sup>1</sup>, G. Panayotou<sup>1</sup>, V. Kostourou<sup>1\*</sup><sup>1</sup>BSRC Alexander Fleming, Vari, Greece

\*e-mail: kostourou@fleming.gr

**604 Activin-A produced in the context of an immune-inflammatory response exerts tissue-protective or -detrimental functions depending on its cellular origin**Evgenia Synolaki<sup>1</sup>, Athanasia Doulou<sup>1</sup>, Ariana Gavriil<sup>1</sup>, Anastasia Apostolidou<sup>1</sup>, Paschalis Sideras<sup>1\*</sup><sup>1</sup>Center for Clinical, Experimental Surgery and Translational Research Biomedical Research Foundation of the Academy of Athens, Athens, Greece

\*e-mail: sideras@bioacademy.gr

**Sunday 1<sup>st</sup> December 2019****Molecular & Cellular Basis of Human Diseases****6 The UVB irradiation enhances the macrophage migration inhibitory factor (MIF) production from human primary pterygium fibroblasts**Christopoulou M-E.<sup>1</sup>, Trilivas I.<sup>2</sup>, Moutafidi A.<sup>3</sup>, Assimakopoulou M.<sup>3</sup>, Chaikou K.<sup>1</sup>, Sotiropoulou C.<sup>1</sup>, Neofotistou E.<sup>1</sup>, Pharmakakis N.<sup>2</sup>, Aletras A. J.<sup>1</sup><sup>1</sup>Laboratory of Biochemistry, Department of Chemistry, University of Patras, Patras, Greece<sup>2</sup>Department of Ophthalmology, Medical School, University of Patras, Patras, Greece<sup>3</sup>Department of Anatomy-Histology and Embryology, Medical School, University of Patras, Patras, Greece



- 9** **ILK is involved in the mechanisms of genomic instability in colorectal cancer**  
**Panagiota Chadla<sup>1\*</sup>, Marina Arbi<sup>2</sup>, Sofia Nikou<sup>1</sup>, Thodoris Kalliakoudas<sup>3</sup>, Stavros Taraviras<sup>3</sup>, Zoi Lygerou<sup>2</sup>, Vasiliki Bravou<sup>1\*</sup>**  
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<sup>2</sup> Department of Biology, Medical School, University of Patras, Rio, Greece  
<sup>3</sup> Department of Physiology, Medical School, University of Patras, Rio, Greece  
\*e-mail: panchadla@hotmail.com, panchadla@upatras.gr, vibra@upatras.gr
- 14** **The role of macrophages in lung adenocarcinoma**  
**Giannoula Ntaliarda<sup>1\*</sup>, Ioannis Lilis<sup>1</sup>, Magda Spella<sup>1</sup> and Georgios T. Stathopoulos<sup>1,2</sup>.**  
<sup>1</sup> Laboratory for Molecular Respiratory Carcinogenesis, Department of Physiology, Faculty of Medicine; University of Patras; Rio, Greece.  
<sup>2</sup> Comprehensive Pneumology Center (CPC) and Institute for Lung Biology and Disease (ILBD); University Hospital, Ludwig-Maximilians University and Helmholtz Zentrum München, Member of the German Center for Lung Research (DZL); Munich, Germany.  
\*e-mail:ntaliarda@upatras.gr
- 16** **L-Dopa decarboxylase protein expression under oxidative stress conditions**  
**Nikolaos Lotsios<sup>1</sup>, Nikolaos Arvanitis<sup>1</sup>, Alexandros Charonitakis<sup>1</sup>, Diamantis C. Sideris, Efseveia Frakolaki<sup>2</sup>, Niki Vassilaki<sup>2</sup>, Dido Vassilacopoulou<sup>1\*</sup>**  
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<sup>2</sup> Laboratory of Molecular Virology, Hellenic Pasteur Institute (HPI), 11521 Athens, Greece  
\*e-mail: didovass@biol.uoa.gr
- 17** **Expression profile of brain voltage gated Ca<sup>2+</sup> channels in Parkinson's disease mouse models**  
**Ioanna Chalatsa<sup>1\*</sup>, Emmanouela Leandrou<sup>1</sup>, Vicky Filippa<sup>2</sup>, Emma Anastasiadou<sup>2</sup>, Kostas Vekrellis<sup>1</sup>, Evangelia Emmanouilidou<sup>1,3</sup>**  
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<sup>2</sup> Division of Genetics and Gene Therapy, Center for Basic Research, Foundation for Biomedical Research of the Academy of Athens, 4 Soranou Ephessiou Street, 115 27, Athens, Greece  
<sup>3</sup> Laboratory of Biochemistry, Department of Chemistry, National and Kapodistrian University of Athens, Panepistimiopolis Zografou, 157 84, Athens, Greece  
\*email: eemman@chem.uoa.gr
- 25** **Synergistic antiproliferative effects of Cisplatin with Curcumin in the lung adenocarcinoma cell line COLO699N**  
**Evangelia Giosi<sup>1,2\*</sup>, Dimitrios-Athanasios Ntanovasilis<sup>2</sup>, Panagiotis Parsonidis<sup>2</sup>, Katerina Chlichlia<sup>1</sup>, Ioannis Papasotiriou<sup>2</sup>**  
<sup>1</sup> Department of Molecular Biology and Genetics, Democritus University of Thrace, Alexandroupolis, Greece, 2 Research Genetic Cancer Center, International GmbH, Florina, Greece  
\*email: eva.giosi@gmail.com
- 36** **One step closer to Personalized Medicine on Oncology: Overview of NHRF activities**  
**Ioanna Giopanou<sup>1</sup>, Vivian Kosmidou<sup>1</sup>, Olga Papadodima<sup>1</sup>, Vassilis Souliotis<sup>1</sup>, Vassiliki Pletsa<sup>1</sup>, Panagiotis Georgiadis<sup>1</sup>, Alexandros Pintzas<sup>1</sup>**  
<sup>1</sup> National Hellenic Research Foundation, Athens, Greece  
\*e-mail: giopanou@eie.gr

- 37** **The epigenetic factor LSD2 mediates virus–host immunometabolic interactions in HCV infection**  
**Elisavet Ioannidou, Vaia Valiakou, Georgia Papadopoulou, Eirini Karamichali, Urania Georgopoulou, Pelagia Foka\***  
*Molecular Virology Laboratory, Hellenic Pasteur Institute, Athens, Greece*
- 44** **Red grape pomace extract reduced platelet aggregation and LPS-induced TNF- $\alpha$  secretion from PBMCs**  
**Maria Choleva<sup>1</sup>, Maria Tsota<sup>1</sup>, Anthi Panara<sup>2</sup>, Nikolaos S. Thomaidis<sup>2</sup>, Smaragdi Antonopoulou<sup>1</sup>, Elizabeth Fragopoulou<sup>1\*</sup>**  
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<sup>2</sup> *Department of Chemistry, National and Kapodistrian University, Athens, Greece*  
*\*e-mail: efragop@hua.gr*
- 49** **L-Dopa Decarboxylase (DDC) inhibitor NSD-1015 alters the proteolytic processing of Amyloid Precursor Protein (APP)**  
**Evdokia Mastora<sup>1</sup>, Christina Ntalla<sup>1</sup>, Alexandros Charonitakis<sup>1</sup>, Nikolaos Arvanitis<sup>1</sup>, Dido Vassilacopoulou<sup>1\*</sup>**  
<sup>1</sup> *Section of Biochemistry and Molecular Biology, Department of Biology, National and Kapodistrian University of Athens, Panepistimiopolis, Ilissia 15701, Greece*  
*\*email: didovass@biol.uoa.gr*
- 64** **50** **Mechanism of transcriptional inhibition of the endothelial lipase gene (LIPG) by HDL in endothelial cells via the transcription factors FOXO1 and SREBP-2**  
**Dimitris Theofilatos<sup>1</sup>, Panagiotis Fotakis<sup>2#</sup>, Efi Valanti<sup>3</sup>, Despina Sanoudou<sup>3</sup>, Vassilis Zannis<sup>2</sup>, and Dimitris Kardassis<sup>1\*</sup>**  
<sup>1</sup> *Laboratory of Biochemistry, University of Crete School of Medicine, Heraklion Greece and Institute of Molecular Biology and Biotechnology, FORTH, Heraklion Greece*  
<sup>2</sup> *Section of Molecular Genetics, Boston University Medical School, Boston, USA*  
<sup>3</sup> *4th Department of Internal Medicine, "Attikon" Hospital, Medical School, National and Kapodistrian University of Athens, Athens, Greece*  
<sup>#</sup> *Current address: Columbia University School of Medicine, New York, USA*  
*\*e-mail: kardasis@imbb.forth.gr*
- 54** **Changes in adipose tissue transcriptome of apoE3L.CETP mice during the development of the metabolic syndrome**  
**Dimitris Niasias<sup>1,2</sup>, Despoina Vassou<sup>3</sup>, Giorgos Papagiannakis<sup>3</sup>, Ariadni Papadaki<sup>1</sup> and Dimitris Kardassis<sup>1,2\*</sup>**  
<sup>1</sup> *Laboratory of Biochemistry, University of Crete Medical School, Heraklion, Greece*  
<sup>2</sup> *Gene Regulation and Epigenetics group, Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology of Hellas, Heraklion, Greece*  
<sup>3</sup> *Genomics Facility, Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology of Hellas, Heraklion, Greece*  
*\*e-mail: kardasis@imbb.forth.gr*
- 64** **Assessment of cellular bioenergetics in human K-562 erythroleukemia cells and HCT116 colorectal cells treated with Imatinib mesylate and/or Dichloroacetate**  
**Maria G. Kakafika<sup>1,2\*</sup>, Areti A. Lyta<sup>1\*</sup>, George I. Gavriilidis<sup>1</sup>, Ioannis S. Pappas<sup>3</sup>, Ioannis S. Vizirianakis<sup>1</sup>, Asterios S. Tsiftoglou<sup>1</sup>, Lefkothea C. Papadopoulou<sup>1\*\*</sup>**  
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<sup>2</sup> *Department of Biochemistry and Biotechnology, School of Health Science, University of Thessaly, Larisa, GREECE*  
<sup>3</sup> *Laboratory of Pharmacology and Toxicology, Faculty of Veterinary Science, University of Thessaly, Karditsa, GREECE*  
*\*\* Corresponding author - email: lefkotea@pharm.auth.gr*

- 71** **Investigation of possible anticancer activity of plant species belonging to Ranunculaceae family**  
**Paraskevi Yfanti<sup>1</sup>, Athanassios Karkabounas<sup>1</sup>, Anna Batistatou<sup>1</sup>, Marilena E. Lekka<sup>1\*</sup>**  
*<sup>1</sup>University of Ioannina, Ioannina, Greece*  
*\*e-mail: mlekka@uoi.gr*
- 73** **Apal and Taql gene polymorphisms of the VDR gene in patients with psoriasis vulgaris**  
**Leontari Ilia<sup>1\*</sup>, Karpouzis Anthony<sup>2</sup>, Karapepera Vaya<sup>1</sup>, Kyrtopoulos Mihail<sup>1</sup>, Kolovos Panagiotis<sup>1</sup>, Gkatzidou Elisavet<sup>1</sup>, Veletza Stavroula<sup>1</sup>**  
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*\*e-mail: ilialeontari@gmail.com*
- 76** **Evaluation of in vitro Oxidative Protective Effect of Tetraselmis chuii Extract on Human Dermal Fibroblasts**  
**Maria Eleftheria Zografaki<sup>1\*</sup>, Sophia Marka<sup>1\*</sup>, Aikaterini Koletti<sup>1</sup>, Sophia Letsiou<sup>2</sup>, Konstantinos Gardikis<sup>2</sup>, Carlos Infante<sup>3</sup>, Lalia Mantecón<sup>3</sup>, Emmanouil Flemetakis<sup>1\*\*</sup>**  
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*<sup>3</sup>Fitoplancton Marino S.L., Cádiz, Spain*  
*\*These authors contributed equally*  
*\*\*Correspondance to: mflem@aua.gr*
- 80** **Association of poly(A) polymerase alpha overexpression with alterations on the proteome profile of MCF-7 breast cancer cells**  
**Chrysoula Komini<sup>1</sup>, Martina Samiotaki<sup>2</sup>, George Stamatakis<sup>2</sup>, Michaela D. Filiou<sup>1</sup>, George Panayotou<sup>2</sup>, Theoni Trangas<sup>1</sup>**  
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*<sup>2</sup>Institute of Innovation, B.S.R.C. "Alexander Fleming" Vari, Attiki, Greece*
- 91** **Immunological profile of the glioblastoma cell lines T98 and U87 under hypoxia and acidosis**  
**Aikaterini Skeva<sup>1\*</sup>, Stamatia Pouliliou<sup>1</sup>, Achilleas Mitrakas<sup>1</sup>, Erasmia Xanthopoulou<sup>1</sup>, Vasiliki Toufaki<sup>1</sup>, Koparanis Dimitrios<sup>1</sup>, Alexandra Giatromanolaki<sup>2</sup>, Michael I. Koukourakis<sup>1</sup>**  
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*\*email: skevakaterina@hotmail.com*
- 92** **Currant polyphenolic compounds can prevent pathogenic functions of apolipoprotein E4 associated with Alzheimer's disease**  
**Christina Mountaki, Ioannis Dafnis and Angeliki Chroni**  
*Institute of Biosciences and Applications, National Center for Scientific Research "Demokritos", Athens 15341, Greece*
- 107** **1,25-dihydroxy-vitamin D reduces HIFs- $\alpha$  protein levels and HIFs transcriptional activities via non-genomic mechanism**  
**Ioanna-Maria Gkotinakou<sup>1</sup>, Eleni Kechagia<sup>1</sup>, Kalliopi Pazaitou-Panayiotou<sup>2</sup>, Panagiotis Liakos<sup>1</sup>, Andreas Tsakalof<sup>1\*</sup>**  
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- 110** **In vitro reprogramming of astrocytes to ependymal cells through forced expression of GemC1/Lynkeas and Mclidas**  
**Evangelia Parlapani<sup>1</sup>, Maria-Eleni Lalioti<sup>1</sup>, Konstantina Kaplani<sup>1</sup>, Georgia Lokka<sup>1</sup>, Andriana Charalampopoulou<sup>1</sup>, Zoi Lygerou<sup>2</sup>, Stavros Taraviras<sup>1</sup>**  
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<sup>2</sup>Department of General Biology, School of Medicine, University of Patras, Greece
- 111** **LncRNAs and their association with male infertility in the Greek population**  
**Marianna Kirgiafina<sup>1</sup>, Maria Markantoni<sup>1</sup>, Aikaterini Moutou<sup>1</sup>, Theologia Sarafidou<sup>1</sup>, Alexia Chatziparasidou<sup>2</sup>, Zissis Mamuris<sup>1</sup>**  
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<sup>2</sup>Embryolab IVF unit, Thessaloniki, Greece
- 114** **Frequency of E4 allele in Northern Greece patients with Alzheimer and Mild Cognitive Impairment**  
**Maria Karakota<sup>1\*</sup>, Vasiliki Peraki<sup>1</sup>, Anthoula Tsolaki<sup>2,3,4</sup>, Eutuxia Lazarou<sup>3,4</sup>, Mahi Kozori<sup>4</sup>, Anna Anastasiou<sup>3</sup>, George Koliakos<sup>1</sup>, Magda Tsolaki<sup>3,4</sup>**  
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- 115** **Investigation of autoantigen derived polypeptides as immunotherapeutic agents for Myasthenia gravis**  
**Vasiliki Baltatzidou, Konstantinos Lazaridis\***  
Hellenic Pasteur Institute, Athens, Greece
- 118** **Suppression of hepatocellular carcinogenesis by histone deacetylase inhibitor Romidepsin is associated with Bmp and Notch signaling pathway deregulation**  
**Hara Afaloniati<sup>1</sup>, Theofilos Poutahidis<sup>2</sup>, Alexandros Giakoustidis<sup>3</sup>, Athanasios Gargavanis<sup>4</sup>, Dimitrios Giakoustidis<sup>4</sup>, Katerina Angelopoulou<sup>1\*</sup>**  
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- 131** **Effects of Cold Atmospheric Plasma on breast cancer cells**  
**Anna-Maria Christodoulou<sup>1</sup>†, Myrsini Tachliabouri<sup>1</sup>†, Christos Aggelopoulos<sup>2</sup>, Spyros S. Skandalis<sup>1\*</sup>**  
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- 132 Functional analysis of genes involved in the pathophysiology of cardiovascular diseases**  
Panagiota Giardoglou<sup>1,2</sup>, Despina Bournele<sup>2</sup>, Panagiotis Deloukas<sup>3</sup>, Dimitris Beis<sup>2\*</sup> and George V. Dedoussis<sup>1\*</sup>  
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<sup>3</sup> William Harvey Research Institute, Barts and The London School of Medicine and Dentistry, Queen Mary University of London, UK.
- 147 What about post-partum depression? Lets ask metabolomics**  
Zoe Papadopoulou<sup>1</sup>, Angeliki-Maria Vlaikou<sup>2</sup>, Daniela Theodoridou<sup>1</sup>, Chrysoula Komini<sup>2</sup>, Georgia Chalkiadaki<sup>3</sup>, Marina Vafeiadi<sup>3</sup>, Katerina Margetaki<sup>3</sup>, Theoni Trangas<sup>2</sup>, Chris W. Turck<sup>4</sup>, Maria Syrrou<sup>1</sup>, Leda Chatzi<sup>3</sup>, Michaela D. Filiou<sup>2, \*</sup>  
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<sup>4</sup> Proteomics and Biomarkers, Department of Translational Research in Psychiatry, Max Planck Institute of Psychiatry, Munich, Germany
- 153 Novel autoantibodies as biomarker in autoimmune encephalitis and related syndromes**  
M. Michail<sup>1,2</sup>, M. Grigoraki<sup>1</sup>, K. Karagiorgou<sup>3,4</sup>, J. Tzartos<sup>3,5</sup>, S. Tzartos<sup>3</sup>, P. Zisimopoulou<sup>1\*</sup>  
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- 160 Expression of Ets-2, Foxp3, Tip60 and cytokine genes in T helper lymphocytes of type 1 diabetic patients**  
Evanthia Tourkochristou<sup>1\*</sup>, Ioanna Aggeletopoulou<sup>1</sup>, Ioannis Panagoulas<sup>1</sup>, Anne-Lise de Lastic<sup>1</sup>, Maria Rodi<sup>1</sup>, Panagiota Davoulou<sup>1</sup>, Athanasia Mouzaki<sup>1</sup>  
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- 162 Exosomes as vehicles for therapy in protein misfolding diseases: Applications in synucleinopathies**  
George Tsafaras<sup>1</sup>, Katerina Melachroinou<sup>1</sup>, Evangelia Emmanouilidou<sup>2</sup>,  
Kostantinos Vekrellis<sup>1\*</sup>  
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\*e-mail: vekrellis@bioacademy.gr
- 165 Exercise induced changes in muscle fiber composition, lipidemic profile and oxidative stress/ inflammatory markers after different volumes of power training**  
Spyridon Methenitis<sup>1\*</sup>, Tzortzis Nomikos<sup>2</sup>, Eleanna Chalari<sup>2</sup>, Thomas Mpampoulis<sup>1</sup>, Dimitris Daglis<sup>1</sup>, Angeliki-Nikoletta Stasinaki<sup>1</sup>, Polyxeni Spiliopoulou<sup>1</sup>, Constantinos Papadopoulos<sup>3</sup>, George Papadimas<sup>3</sup>, Gerasimos Terzis<sup>1</sup>  
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- 171 Ras suppressor-1 (RSU1): a putative biomarker and target for lung adenocarcinoma**  
Sofia Nikou<sup>1</sup>, Marina Arbi<sup>2</sup>, Fotinos Dimitrakopoulos<sup>3</sup>, George T Stathopoulos<sup>4</sup>, Haralabos Kalofonos<sup>3</sup>, Zoi Lygerou<sup>2</sup>, Vasiliki Bravou<sup>1</sup>  
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<sup>4</sup> Laboratory of Molecular Respiratory Carcinogenesis, School of Medicine, University of Patras, 26504 Patras, Greece
- 173 Serglycin modulates the aggressive behavior and differentiation of glioblastoma cells**  
Dimitra Manou<sup>1</sup>, Maria Aggeliki Golfinou<sup>1</sup>, Panagiotis Bouris<sup>1</sup>, Dimitris Kletsas<sup>2</sup>, Martin Goette<sup>3</sup>, Burkhard Greve<sup>4</sup>, Nikos K. Karamanos<sup>1</sup>, Achilleas D. Theocharis<sup>1\*</sup>  
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- 174 Serglycin and HER-2 regulate the migratory and proteolytic properties of glioblastoma cells LN-18**  
Maria-Aggeliki Golfinou<sup>1</sup>, Dimitra Manou<sup>1</sup>, Nikos K. Karamanos<sup>1</sup>, Achilleas D. Theocharis<sup>1\*</sup>  
<sup>1</sup> Biochemistry, Biochemical Analysis & Matrix Pathobiology Research Group, Laboratory of Biochemistry, Department of Chemistry, University of Patras, Greece  
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- 180 Disulfides from the brown Algae Dictyopteris membranacea suppress M1 macrophage activation and ameliorate insulin resistance in high-fat diet-fed mice.**  
Maria G. Daskalaki<sup>1\*</sup>, Paraskevi Bafiti<sup>1</sup>, Maria Laskou<sup>1</sup>, Efstathia Ioannou<sup>2</sup>, Vassilios Roussis<sup>2</sup>, Sotirios Kampranis<sup>3</sup>, Christos Tsatsanis<sup>1</sup>  
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- 181 Post-transcriptional regulation of gastric epithelial cells in Helicobacter pylori infection**  
Evangelia Sotiropoulou<sup>1,2</sup>, Eftaxia-Konstantina Valanti<sup>3</sup>, Yiannis Karayiannis<sup>1,2</sup>, Eleftherios Kontizas<sup>1,2</sup>, Chrisoula Kartsiouka<sup>1</sup>, Beatriz Martinez<sup>1</sup>, Despina Sanoudou<sup>3,4</sup>, Panagoula Kollia<sup>2</sup>, Dionyssios Sgouras<sup>1,\*</sup>  
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- 182 The role of IQGAP1 in mitochondrial function and signalling in gastric cancer**  
Vasiliki Papadaki<sup>1</sup>, Zoi Erpapazoglou<sup>1</sup>, Myrto Potiri<sup>1</sup>, Andrada Birladeanu<sup>1</sup>, Panagiota Kafasla<sup>1\*</sup>  
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- 183 Terpenoids from the red algae *Laurencia* suppress adipogenesis and alter adipocyte metabolism**  
**Eleni Paflioti<sup>1</sup>, Grigoris Panteloglou<sup>1</sup>, Maria G Daskalaki<sup>1</sup>, Eirini Dermitzaki<sup>1</sup>, Efstathia Ioannou<sup>2</sup>, Vassilios Roussis<sup>2</sup>, Sotirios Kampranis<sup>3</sup>, Christos Tsatsanis<sup>1</sup>**  
*<sup>1</sup>Laboratory of Clinical Chemistry, School of Medicine, University of Crete, Heraklion 70013, Greece, <sup>2</sup>Department of Pharmacy, National and Kapodistrian University of Athens, Panepistimiopolis Zografou, Athens 15771, Greece, <sup>3</sup>University of Copenhagen, Thorvaldsensvej 40, 1871 Frederiksberg C, Denmark* Adipocytes,
- 501 Focal adhesion proteins are implicated in hepatocellular carcinoma progression.**  
**Christina Geramoutsou<sup>1\*</sup>, Sofia Nikou<sup>1</sup>, Dimitrios Karavias<sup>2</sup>, Vasiliki Bravou<sup>1</sup>**  
*<sup>1</sup>Department of Anatomy-Histology and Embryology, School of Medicine, University of Patras,  
<sup>2</sup>The Queen's Medical Centre, Nottingham, UK  
\*e-mail: xrina@windowslive.com*
- 509 Exploitation of host cell post-transcriptional machinery by West Nile Virus**  
**Maria Bampali<sup>1</sup>, Katerina Kassela<sup>1</sup>, Nikolas Dovrolis<sup>1</sup>, Martina Samiotaki<sup>2</sup>, Adamantia Kouvela<sup>1</sup>, Stavroula Veletza<sup>1</sup>, Ioannis Karakasiliotis<sup>1</sup>**  
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<sup>2</sup>Proteomics Facility, BSRC «Alexander Fleming», Athens, Greece*
- 514 Inhibition of HIF-2 activity and erythropoietin secretion by the flavonoid kaempferol in human liver cancer cells under hypoxia.**  
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- 518 A preclinical platform for drug evaluation on a RANKL - dependent breast cancer mouse model: in vivo monitoring through PET screening**  
**Maritina Rouchota<sup>1\*</sup>, Eirini Fragogeorgi<sup>2</sup>, Lydia Ntari<sup>3</sup>, Anthi Kolokotroni<sup>4,5</sup>, Vagelis Rinotas<sup>4,5</sup>, Maria C. Denis<sup>3</sup>, Niki Karagianni<sup>3</sup>, Eleni Douni<sup>4,5</sup>, George Loudos<sup>1</sup>**  
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- 525 A highly sensitive quantitative radioimmunoprecipitation assay of aquaporin-4 antibodies for diagnosis and monitoring neuromyelitis optica**  
**Christos Stergiou<sup>1</sup>, Emilia Bedenidi<sup>1</sup>, Aliko Papakonstantinou<sup>1</sup>, Costas Kilidireas<sup>2</sup>, Socrates Tzartos<sup>1,3</sup>, John Tzartos<sup>1,2\*</sup>**  
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- 527 Analysis of in vitro effects of the Bisphenol A on beta-TC-6 cells**  
Ioanna Anastasiou<sup>1</sup>, Ioanna Eleftheriadou<sup>1</sup>, Anastasios Tentolouris<sup>1</sup>, Ourania Kosta<sup>1</sup>, Iordanis Mourouzis<sup>2</sup>, Spyros Foutadakis<sup>3</sup>, Mariana Koutsi<sup>3</sup>, Kostantinos Zagkas<sup>3</sup>, Ioannis Serafimidis<sup>3</sup>, Marios Agelopoulos<sup>3</sup>, Nikolaos Tentolouris<sup>1\*</sup>  
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- 529 Prox1 inhibits c-Myc dependent gene regulatory program and metabolic pathway to suppress the proliferation of breast cancer cells**  
Artemis Michail<sup>\*</sup>, Dimitris Gkikas<sup>1</sup>, Valeria Kaltezioti<sup>1</sup> and Panagiotis K Politis<sup>1</sup>  
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- 530 C-bouton synapse in amyotrophic lateral sclerosis: collaborator or opponent in motor neuron loss?**  
Eleni Konsolaki<sup>\*</sup>, Eirini Tsape, Laskaro Zagoraïou<sup>\*</sup>  
Biomedical Foundation of the Academy of Athens, Greece  
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- 532 Decoding the molecular logic of Type 1 Diabetes (T1D) by combined genomics analyses in  $\beta$ -pancreatic cells during Virus-infection**  
Marianna Koutsi<sup>1</sup>, Spyros Foutadakis<sup>1</sup>, Ioanna Anastasiou<sup>2</sup>, Dimitris Chatzopoulos<sup>1</sup>, Apostolis Mourtzinis<sup>1</sup>, Ioanna Eleftheriadou<sup>2</sup>, Nikolaos Tentolouris<sup>2</sup>, Ioannis Serafimidis<sup>1</sup>, Marios Agelopoulos<sup>1\*</sup>  
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- 545 COMPARATIVE STUDY OF THE EXPRESSION OF METABOLIC PROTEINS IN RADIORESISTANT LUNG CANCER CELL LINES**  
Dimitrios Koparanis<sup>1</sup>, Avgi Tsolou<sup>1</sup>, Ioannis Lamprou<sup>1</sup>, Vasiliki Toufaki<sup>1</sup>, Axiotis G. Giakzidis<sup>1</sup>, Alexandra Giatromanolaki<sup>2</sup> and Michael I Koukourakis<sup>1</sup>  
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<sup>2</sup> Department of Pathology, Department of Medicine – Democritus University of Thrace, Alexandroupolis, Greece
- 548 A case of different penetrance of FMR1 resulting in varying phenotype among three brothers who are offspring of a premutation mother**  
Angeliki Malamidou<sup>1</sup>, Alexandros Ikonomidis<sup>2</sup>, Anastasios Xefteris<sup>1\*</sup>  
<sup>1</sup> Eurogenetica, Thessaloniki, Greece, <sup>2</sup> Eurogenetica Thessalias, Larissa, Greece  
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- 553 Elucidating the role of ILK and PINCH in tumour and developmental angiogenesis**  
Christina Arapatzi, Maria Koufaki, Vassiliki Kostourou  
BSRC Alexander Fleming, Vari, Greece, email: kostourou@fleming.gr



- 564 Innovative perspectives of cutaneous leishmaniasis treatment based on Total Phenolic Fraction derived from Extra Virgin Olive Oil and phytotherapy.**  
**Olga S. Koutsoni<sup>1#</sup>, Kalliopi Karampetsou<sup>1,2#</sup>, Georgia Gogou<sup>1,2</sup>, Maria Chalambalaki<sup>2</sup>, Leandros-Alexios Skaltsounis<sup>2</sup>, Eleni Dotsika<sup>1\*</sup>**  
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*# contributed equally to this work*
- 569 Natural compounds with osteoprotective properties derived from Greek plant species**  
**Argyro Vontzalidou<sup>1,2\*</sup>, Aggeliki Meligova<sup>2</sup>, Maria Makropoulou<sup>1,2</sup>, Eleftherios Kalpoutzakis<sup>1</sup>, Dimitra J. Mitsiou<sup>2</sup>, Sofia Mitakou<sup>1</sup>, Michael N. Alexis<sup>2</sup>, Nektarios Aligiannis<sup>1</sup>**  
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*<sup>2</sup>Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic Research Foundation, 11635 Athens, Greece*  
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- 572 The role of ECM homeostasis and interactions in the pathogenesis of Idiopathic Pulmonary Fibrosis**  
**Iliana Barbayianni, Paraskevi Kanellopoulou, Vassilis Aidinis\***  
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- 574 The role of Vcan (ECM component) in the pathogenesis of Idiopathic Pulmonary Fibrosis**  
**Paraskevi Kanellopoulou, Iliana Barbayianni, Vassilis Aidinis\***  
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*\*e-mail: kanellopoulou@fleming.gr*
- 575 Lipocalin 2, an iron homeostasis regulator with anti-microbial action, seems to have a role in the pathophysiology of Pulmonary Fibrosis**  
**Apostolos Galaris\*, Iliana Barbayianni, Katerina Touloumi, Vassillis Aidinis**  
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- 580 Exploring the role of nuclear receptor NR5A2 in lung cancer**  
**Maria Lala, Dimitrios Gkikas, Panagiotis Politis\***  
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- 589 Characterization of SLC25A46 missense mutations identified in patients with neurodegenerative disorders**  
**Vasiliki-Iris Perivolidi<sup>1,2</sup>, Giannis Ntounias<sup>1,2</sup>, Aristofanis Stavrou<sup>1,2</sup>, Foteini Violitzi<sup>1,2</sup>, Martina Samiotaki<sup>1</sup>, George Panayotou<sup>1</sup>, Eleni Douni<sup>1,2\*</sup>**  
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- 592 The tumor suppressor role of NR5A2/LRH1 in nervous system malignancies**  
Dimitrios Gkikas<sup>1</sup>, Dimitris Stellas<sup>1</sup> and Panagiotis K. Politis<sup>1</sup>  
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- 593 Akt1 deficiency in neonatal macrophages enhances their bactericidal activity against Streptococcus agalactiae by modulating autophagy and oxidative stress**  
Kolliniati Ourania<sup>1,2</sup>, Eleni Vergadi<sup>1,2</sup>, Ioanna Lapi<sup>1,2</sup>, Christos Tsatsanis<sup>1,2\*</sup>  
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- 599 The interaction between the RNA-binding protein hnRNPM and the scaffold protein IQGAP1 affects alternative splicing outcome in gastric cancer**  
Andrada Birladeanu<sup>1</sup>, Zoi Erpapazoglou<sup>1</sup>, Malgorzata Rogalska<sup>2</sup>, Juan Valcarcel<sup>2</sup>, Margarita Andreadou<sup>1</sup>, Dimitris L. Kontoyiannis<sup>1</sup> and Panagiota Kafasla<sup>1\*</sup>  
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- 600 Activation of both TGFβ and BMP pathways upon traumatic brain injury restrains pro-inflammatory and boosts tissue reparatory responses of reactive astrocytes and microglia**  
Georgios Divolis<sup>1</sup>, Athanasios Stavropoulos<sup>1</sup>, Maria Manioudaki<sup>1</sup>, Anastasia Apostolidou<sup>1</sup>, Athanasia Doulou<sup>1</sup>, Ariana Gavriil<sup>1</sup>, Ioannis Dafnis<sup>2</sup>, Angeliki Chroni<sup>2</sup>, Christine Mummery<sup>3</sup>, Maria Xilouri<sup>1</sup> and Paschalis Sideras<sup>1\*</sup>  
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<sup>2</sup> Institute of Biosciences and Applications, National Center for Scientific Research-Demokritos, Greece  
<sup>3</sup> Department of Anatomy and Embryology, Leiden University Medical Center, The Netherlands
- 602 The effect of ionizing radiation on human breast cancer-stroma interactions**  
Eleni Mavrogonatou, Asimina Fotopoulou, Adamantia Papadopoulou, Harris Pratsinis, Dimitris Kletsas\*  
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- 605 Endothelial Talin 1 is required for tumour blood vessel function and cancer development**  
Pinelopi Nikolopoulou<sup>1</sup>, Demosthenes Mitrossilis<sup>2</sup>, David Critchley<sup>3</sup>, Vassiliki Kostourou<sup>1\*</sup>  
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**606 Anti-inflammatory actions of marine-derived products; the impact on obesity-induced inflammation and innate immune responses****Nikol Androulaki<sup>1,2</sup>, Maria Daskalaki<sup>1,2</sup>, Christina Efraimoglou<sup>1,2</sup>, Konstantinos Axarlis<sup>1,2</sup>, Ioanna Lapi<sup>1,2</sup>, Ourania Kolliniati<sup>1,2</sup>, Zouhir El Marsni<sup>3</sup>, Petra Remelkova<sup>3</sup>, Lucyna Filipek<sup>3</sup>, Maria Venihaki<sup>1</sup>, Christos Tsatsanis<sup>1,2</sup>**<sup>1</sup> Laboratory of Clinical Chemistry, Medical School, University of Crete, Heraklion, Greece<sup>2</sup> Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology, Foundation for Research and Technology HELLAS,<sup>3</sup> Seagarden AS Husøyvegen 278 Karmsund Fiskerihavn 4262 Avaldsnes, Norway

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**610 Involvement of diverse MAP kinases in MMP-3 and MMP-9 activation during *Helicobacter pylori* infection of gastric epithelial cells****Yiannis Karayiannis<sup>1</sup>, Ioanna Sougleri<sup>1</sup>, Eleftherios Kontizas<sup>1</sup>, Beatriz Martinez-Gonzalez<sup>1</sup>, Panagoula Kollia<sup>2</sup>, Andreas Mentis<sup>1</sup>, Dionyssios Sgouras<sup>1</sup>**<sup>1</sup> Laboratory of Medical Microbiology, Hellenic Pasteur Institute, Athens, Greece<sup>2</sup> Department of Genetics and Biotechnology, Faculty of Biology, School of Physical Sciences, University of Athens, Athens, Greece**A u d i r u m****613 Mechanistic insights in the production of West Nile virus sfRNAs during virus replication****Adamantia Kouvela<sup>\*</sup>, Katerina Kassela, Nikolas Dovrolis, Maria Bampali, Stavroula Veletza, Ioannis Karakasiliotis**

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**618 Tissue proteomics analysis of Diffuse Large B-cell Lymphoma (DLBCL): A pilot study****Kyriaki Ziampa<sup>1,3#</sup>, Dimitra Mavridou<sup>1,3#</sup>, Vasileios Papadopoulos<sup>1,3</sup>, Stefania Maniatsi<sup>1,3</sup>, Georgia Orfanoudaki<sup>2</sup>, Triantafyllia Koletsa<sup>4</sup>, Konstantina Psatha<sup>2,3</sup>, Michalis Aivaliotis<sup>1,2,3\*</sup>**<sup>1</sup> Laboratory of Biological Chemistry, Division of Biological Sciences and Preventive Medicine, Department of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece<sup>2</sup> Institute of Molecular Biology and Biotechnology Foundation for Research and Technology- Hellas, Heraklion, Greece<sup>3</sup> Functional Proteomics and Systems Biology (FunPATH) – Center for Interdisciplinary Research and Innovation (CIRI-AUTH)<sup>4</sup> Division of Pathology, Department of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece

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**643 Study of p53 isoforms and protein complexes in different human lymphoma model cell lines****Athina Kyriazi<sup>1</sup>, Nicoleta Geropoulou<sup>2</sup>, Elias Drakos<sup>3</sup>, Konstantina Psatha<sup>4</sup>, Michalis Aivaliotis<sup>4,5,6</sup>**<sup>1</sup> Department of Biology, University of Crete, Heraklion, Greece<sup>2</sup> Department of Chemistry University of Crete, Heraklion, Greece<sup>3</sup> School of Medicine, University of Crete, Heraklion, Greece<sup>4</sup> Institute of Molecular Biology and Biotechnology Foundation for Research and Technology-Hellas, Heraklion, Greece<sup>5</sup> Functional Proteomics and Systems Biology (FunPATH), Center for Interdisciplinary Research and Innovation (CIRI-AUTH), Thessaloniki, Greece<sup>6</sup> Laboratory of Biochemistry Division of Biological Sciences and Preventive Medicine, Department of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece

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- 649 Identification and Molecular Cloning of Novel Kallikrein Gene Isoforms and their Targeting Non-Coding RNAs in Cancer Cells.**  
Panagiotis G. Adamopoulos<sup>1</sup>, Christos K. Kontos<sup>1</sup>, Panagiotis Tsiakanikas<sup>1</sup>, Marios A. Diamantopoulos<sup>1</sup>, Andreas Scorilas<sup>1,\*</sup>  
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- 18 The role of Streptococcus agalactiae surface lipoproteins in blood-brain barrier crossing**  
Florentia Papastefanaki<sup>1</sup>, Aikaterini Segklia<sup>1</sup>, Dimitra Dionysopoulou<sup>1</sup>, Pauline Speder<sup>2</sup>, Shaynoor Dramsi<sup>3</sup>, Vivi Miriagou<sup>4</sup>, Rebecca Matsas<sup>1\*</sup>  
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- 130 Investigating the pathophysiological role of RANKL in mammary gland development and carcinogenesis**  
Anthi Kolokotroni<sup>1,2</sup>, Vagelis Rinotas<sup>1,2</sup>, Evi Gkikopoulou<sup>1,2</sup>, Lydia Ntari<sup>3</sup>, Eleni Dermitzaki<sup>1,2</sup>, Eirini Efstathiou<sup>1,2</sup>, Thanasis Rentis<sup>1,2</sup>, Danae Zareifi<sup>4</sup>, Martina Samiotaki<sup>1</sup>, George Panayotou<sup>1</sup>, Ilias Lymperopoulos<sup>5</sup>, Leonidas Alexopoulos<sup>4</sup>, Maria Denis<sup>3</sup>, Niki Karagianni<sup>3</sup>, Eleni Douni<sup>1,2</sup>  
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- 646 Study of rs11091046 (3123A/C) SNP of AT2R gene in Greek patients with renal cell carcinoma.**  
Zoe Anastasiou<sup>1</sup>, Maria Papathanassiou<sup>1</sup>, Vassilios Tzortzis<sup>2</sup>, Maria Ioannou<sup>1</sup>, Roidoula Papamichali<sup>1</sup>, George Koukoulis<sup>1</sup>, Maria Samara<sup>1\*</sup>  
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<sup>2</sup> Department of Urology, Faculty of Medicine, School of Health Sciences, University of Thessaly, Larissa, Greece.
- 152 DETECTION OF BACTERIOPHAGES IN UPPER RESPIRATORY TRACT OF HEALTHY AND ASTHMATIC INDIVIDUALS**  
**Panagiota Tzani-Tzanopoulou<sup>1\*</sup>, Styliani Taka<sup>1</sup>, Hannah Wanstall<sup>1,2</sup>, Nikolaos G. Papadopoulos<sup>1,2</sup>**  
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- 710 Reduced activity of mitochondrial complex I can indicated a mitochondrial respiratory chain dysfunction in patients with sarcoidosis and idiopathic pulmonary fibrosis (IPF)**  
**Andreas Mouikis<sup>1</sup>, Aglaia Pozantzis<sup>1</sup>, Konstantinna Rossi<sup>1</sup>, Evangelia Vogiatzi<sup>1</sup>, Zoi Fourni<sup>1</sup>, Dimitris Leonidas<sup>1</sup>, Anna-Maria Psara<sup>1</sup>, Emily Zifa<sup>1</sup>, Zoi Daniil<sup>2</sup>**  
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<sup>2</sup> University of Thessaly School of Health Science Faculty of Medicine, Larisa, Greece

**1001** **Insight into the role of cell-matrix adhesions on pathological angiogenesis of the RIP1-tag2 transgenic model for pancreatic cancer**

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