1st International Proteomics Conference in Crete – IPCC-01

Day 1 Thursday 7 October

09.00 – 9.10 WELCOME – Opening remarks (K Tokatlidis)
09.10 – 9.20 The Proteomics Facility at IMBB (T.Economou)

09.20 – 10.00 R. Tampe
10.00 – 10.40 B. Domon
10.40 – 11.10 S. Pergantis 'Selenoproteomics in Human Serum: An Atomic Mass Spectrometric Approach'

11.10 – 11.30 COFFE BREAK

11.30 – 12.10 A. Sickmann
12.10 – 12.50 H. Meyer 'High Performance Proteomics as a Tool in Biomarker Discovery'
12.50 -- 13.00 General Discussion

13.00 – 14.00 LUNCH

14.00– 15.00 Poster Session A - COFFEE

15.00 – 15.40 M.Fonovic 'Proteomic identification of extracellular substrates of cysteine proteases'
15.40 – 16.20 I. Xenarios
16.20 – 17.00 P. Jeno 'Functional Phosphoproteomics of the Rapamycin-sensitive Signalling Pathway in the Yeast *Saccharomyces cerevisiae*'

17.00 – 17.30 ROUND TABLE DISCUSSION
(Quantitation in Proteomics and Handling of large datasets)

Day 2 Friday 8 October

9.30 – 10.10 M. Selbach
10.10 – 10.50 J. Olsen "Global analysis of cell signaling pathways by quantitative phosphoproteomics".
10.50 – 11.30 J. Scrivens

11.30 – 12.00 COFFE BREAK

12.00 – 12.40 T.Jorgensen 'The dynamic structure of proteins probed by hydrogen/deuterium exchange monitored by mass spectrometry'
12.40 – 13. 10 Matt Kennedy 'The Potential of On-Line HPLC-IMS-MS for Qualitative and Quantitative Protein Profiling in Complex Biological Samples'
13.10 – 13. 20 General Discussion

13.20 – 14.30 LUNCH

14.30 – 15.10 T.Whetton 'Proteomic analysis of normal and leukaemic stem cells'

15.10 – 15.50 C.Jimenez **"**Label-free proteomics targeted to sub-cellular compartments for candidate biomarker discovery and early detection of colorectal cancer".

15.50 – 16.30 E. Denisov 'Accelerating the Speed of Analysis for Orbitrap Technology'

16.30 – 17.30 Poster Session B - COFFEE

17.30 – 18.00 ROUND TABLE DISCUSSION
(Integration of other –omics data, future directions in Proteomics)

18.00 CONCLUDING REMARKS T. Economou

POSTER SESSIONS

A/A	Name	Title	Authors-Affiliation
1.	**Michalis Aivaliotis**	**Global and targeted complexome analysis of the cytosolic proteome of Enteropathogenic *Escherichia coli* using Native-PAGE combined with nLC-LTQ Orbitrap MS**	**Michalis Aivaliotis [1],** Vassilia Balabanidou [1], Athina Portaliou [1]; Nikos Kountourakis[1], Spyridoula Karamanou[1], Anastassios Economou[1,2] [1]IMBB-FoRTH and [2]Dpt of Biology, U.Crete, Greece.
2.	**Michalis Aivaliotis**	**Study of non-covalent protein complexes using a top-down approach on a hybrid LTQ-Orbitrap mass spectrometer**	**Michalis Aivaliotis [1],** Malvina Papanastasiou[1], Anastassios Economou[1,2] [1]IMBB-FoRTH and [2]Dpt of Biology, U.Crete, Greece.
3.	**Malvina Papanastasiou**	**Comprehensive characterization of the Escherichia coli cell envelope using a nanoLC-LTQ orbritrap MS**	**Malvina Papanastasiou[1],** Marios Frantzeskos-Sardis[1], Georgia Orfanoudaki[1], Jolanda Giapitzaki[1], Michalis Aivaliotis[1], Nikos Kountourakis[1], Spyridoula Karamanou[1], Anastassios Economou[1,2] [1]IMBB-FoRTH and [2]Dpt of Biology, U.Crete, Greece.
4.	**Micaela Filiou**	**Biomarker discovery by ^{15}N metabolic labeling of a trait anxiety mouse model**	**Michaela D. Filiou[1],** Yaoyang Zhang[1], Larysa Teplytska[1], Stefan Reckow[1], Philipp Gormanns[1], Elisabeth Frank[2], Melanie Kessler[2], Boris Hambsch[2], Markus Nussbaumer[2], Alexander Yassouridis[3], Giuseppina Maccarrone[1], Vladimir Tolstikov[4], Rainer Landgraf [2], Chris W. Turck[1]

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5.	**Michaela Filiou**	**Altered *Escherichia coli* protein expression caused by a ^{15}N isotope effect during metabolic labeling**	**Michaela D. Filiou[1]**, Jeeva Varadarajulu[1], Larysa Teplytska[1], Stefan Reckow[1], Giuseppina Maccarrone[1], Chris W. Turck[1] [1] Proteomics and Biomarkers Group, Max Planck Institute of Psychiatry, Munich, Germany.
6.	**Spyros Pergantis**	**High Throughput Quantification of Selenium in Individual Serum Proteins from a Healthy Human Population Using High-Performance Liquid Chromatography On-line with Isotope Dilution Inductively Coupled Plasma - Mass Spectrometry**	Sophia Letsiou[1,2], Ying Lu[1], Tzortzis Nomikos[2], Smaragdi Antonopoulou[2], Demosthenes Panagiotakos[2] Christos Pitsavos[3], Christodoulos Stefanadis[3], **Spiros A. Pergantis[1],***. [1] Environmental Chemical Processes Laboratory, Department of Chemistry, University of Crete, Voutes Campus, 71003 Heraklion, Crete, Greece [2] Department of Dietetics and Nutritional Science, Harokopion University, El. Venizelou 70, 17671 Athens, Greece [3] First Cardiology Clinic, School of Medicine, University of Athens, Vasilisis Sofias 114, 11527 Athens, Greece
7.	**Athina Portaliou**	**Analysis of the secretome of Enteropathogenic *E. coli*.**	**Portaliou, A.[1,2]**, Kountourakis, N.[1], Aivaliotis, M.[1], Balabanidou, V.[1], Karamanou, S.[1] and Economou, A.[1,2]. [1]IMBB-FoRTH and [2]Dpt of Biology, U.Crete, Greece.
8.	**Athina Portaliou**	**A Type III secretion system chaperone maintains substrates in a**	Balabanidou, V.[1,2], **Portaliou, A.[1,2]**, Karamanou, S.[1], Aivaliotis, M.[1], Pozidis, C.[1],

		translocation-competent state and targets them to the membrane.	Chen, L.[3], Kalodimos, C.G.[3] and Economou, A.[1,2] [1]IMBB-FoRTH and [2]Dpt of Biology, U.Crete, Greece and [3]Rutgers U., NJ, USA
9.	**Katerina Chatzi**	**Optimal matching between signal peptides and mature domains determines protein secretion efficiency.**	**Chatzi, K.[1,2]**, Orfanoudaki, G.[1,2], Koukaki, M.[1], Gouridis, G.[1], Tsamardinos Ioannis[3], Karamanou Spyridoula[1] and Economou Anastassios[1,2]. [1]IMBB-FoRTH and [2]Dpt of Biology, U.Crete and [3]ICS-FORTH, Greece.
10.	**Georgia Orfanoudaki**	**Proteome-wide search for secretion signals in *Escherichia coli***	**Orfanoudaki, G.[1,2]**, Chatzi, K.[1,2], Tsamardinos, I.[3] and Economou A.[1,2]. [1]IMBB-FoRTH and [2]Dpt of Biology, U.Crete and [3]ICS-FORTH, Greece.
11.	**Marios F. Sardis**	**Long-range interaction between the Preprotein Binding Domain and the motor of SecA**	**Sardis, M. F.[1,2]**, Gouridis, G.[1], Koukaki, M.[1], Karamanou, S.[1] and Economou A.[1,2]. [1]IMBB-FoRTH and [2]Dpt of Biology, U.Crete, Greece
12.	**Georgios Gouridis**	**Signal peptides are allosteric activators of the protein translocase.**	**Gouridis, G.[1]**, Karamanou, S.[1], Gelis, I.[3], Kalodimos, C.G.[3] and Economou, A.[1,2] [1]IMBB-FoRTH and [2]Dpt of Biology, U.Crete, Greece and [3]Rutgers U., NJ, USA
13.	**Petros Tzerpos**	**Affinity Capture and Mass Spectrometric Identification of Specific DNA Binding Proteins**	**Petros Tzerpos [1,2]** , Thodoris Savvidis [1,2] , Michalis Sarris [1,2], Michalis Aivaliotis[2], Charalambos Spilianakis [1,2] . [1] Department of Biology, University of Crete. [2] Institute of Molecular Biology & Biotechnology, Foundation for Research and Technology - Hellas.
14.	**Ismene Karakasilioti**	**The role of irreparable DNA lesions in the white adipose of Ercc1-/- progeroid mice**	Irene Kamileri, **Ismene Karakasilioti**, Theodore Kosteas and George Garinis Insitute of Molecular Biology and Biotechnology, FoRTH
15.	**Antigoni Nikolaki**	**Identification of membrane protein complexes of *Pseudomonas sp. phDV1* using 2-D Blue Native/SDS-PAGE and**	**Antigoni Nikolaki** and Georgios Tsiotis, Department of Chemistry, Division of Biochemistry, University of Crete, Heraklion,Greece

		MALDI - TOF/TOF	
16.	**Makis Kapelios**	**Using Nanoelectrospray Ion Mobility Spectrometry (GEMMA) to Determine the Size and Relative Molecular Mass of Proteins and Protein Assemblies: A comparison with MALLS and QELS**	**E. Kapellios[1]**, S . Karamanou [2], M. F. Sardis [2], M. Aivaliotis[2], A. Economou[2,3], S. A. Pergantis[1] [1] Department of Chemistry, University of Crete [2] IMBB-FoRTH [3] Department of Biology, University of Crete
17.	**Irene Kouloura**	**Studies of acetophenones from Acronychia pedunculata with HPLC, FCPC and LC-MS techniques'**	**Eirini Kouloura[1]**, Maria Halabalaki[1], Marie-Christine Lallemand[2], Francois Tillequin[2], Alexios-Leandros Skaltsounis[1] [1]Laboratory of Pharmacognosy & Natural Products Chemistry, School of Pharmacy, Panepistimioupoli, Zografou, 15771, Athens, Greece [2]Laboratoire de Pharmacognosie de l'Université Paris Descartes, UMR N°8638, Faculté de Pharmacie, [4] Avenue de l' Observatoire, 75006 Paris, France
18.	**Anastasia Papadioti**	**Antigen profiling of two strains of the obligate intracellular pathogen Coxiella burnetii**	**Anastasia Papadioti[1]**, Stavroula Markoutsa[2], Iosif Vranakis[3], Yiannis Tselentis[3], Michael Karas [2], Anna Psaroulaki [3] and Georgios Tsiotis[1*] [1]Division of Biochemistry, Department of Chemistry, University of Crete, P.O. Box 2208, GR-71003 Voutes, Greece. [2]Institute of Pharmaceutical Chemistry, University of Frankfurt am Main, D-60438 Frankfurt, Germany [3]Department of Clinical Bacteriology, Parasitology, Zoonoses and Geographical Medicine, Medical School, University of Crete GR-71110 Heraklion, Greece.
19.	**Konstantina Psatha**	**PROTEOME PROFILING OF p53 STABILIZATION & ACTIVATION BY NUTLIN-3A REVEALS**	**Konstantina Psatha[1,2]**, Elias Drakos[2], George Z. Rassidakis[1,2], Michalis Aivaliotis[3,4]

		SIGNIFICANT ALTERATIONS IN THE HSPs RESPONSE IN HODGKIN AND NON HODGKIN LYMPHOMAS	[1]First Department of Pathology, National and Kapodistrian University of Athens, Athens, Greece, [2]Department of Hematopathology, The University of Texas M.D. Anderson Cancer Center, Houston, Texas, USA, [3] Max-Planck-Institute of Biochemistry, Department of Membrane Biochemistry, Martinsried, Germany, [4]Institute of Molecular Biology and Biotechnology, FORTH, Heraklion, Greece.
20.	**Nikos Lemonakis**	**Applications of Mass Spectrometry in Natural Product Chemistry**	**N. Lemoanakis[1]**, E. Kouloura[1], J. Tchoumtchoua[1], E. Gikas[1], M. Halabalaki[1], A. L. Skaltsounis[1]. [1.] Laboratory of Pharmacognosy & Natural Products Chemistry, School of Pharmacy, Panepistimioupoli, Zografou, 15771, Athens, Greece
21.	**Job Tchoumtchoua**	**SIMULTANEOUS DETERMINATION AND CARACTERISATION OF ISOFLAVONOIDS FROM *AMPHIMAS PTEROCARPOIDES* Harms USING UHPLC-ESI(+&-) and APCI(+&-)-LTQ-ORBITRAP**	**Tchoumtchoua J[1,2]**, Halabalaki M[1], Njamen D[2], Mbanya JC[3], Skaltsounis AL[1] [1]Division of Pharmacognosy and Natural Products Chemistry, School of Pharmacy, University of Athens, Panepistimioupoli Zografou, 15771, Athens, Greece [2]Laboratory of Animal Physiology, Department of Animal Biology and Physiology, Faculty of Science, University of Yaounde I, PO Box 812, Yaounde-Cameroon [3]Department of Internal Medicine and Specialties, Faculty of Medicine and Biomedical Sciences, University of Yaounde I, PO Box 8046, Yaounde-Cameroon
22.	**Michalis Karagianopoulos**	**Effects of propanil and diazinon on the protozoan of aquatic ecosystems *Tetrahymena***	**M. Karagiannopoulos[1]**, ME Lekka[1] [1] Biochemistry Laboratory, Chemistry Department, School of Sciences, University of Ioannina, 451 10 Ioannina, Greece
23.	**Callina**	**Identification of a**	**Callina Stratigi[1,2],** Michalis

	Stratigi	**mammalian GAGA factor**	Aivaliotis[2], Charalampos Spilianakis[1,2] [1] Department of Biology, University of Crete, Vasilika Vouton, GR71409 Heraklion, Crete, Greece [2] Institute of Molecular Biology and Biotechnology, Foundation of Research and Technology, Nikolaou Plastira 100, GR 70013, Heraklion, Crete, Greece
24.	**Lida Zoupi**	**The expression of TAG-1 in glial cells is sufficient for the formation of the juxtaparanodal complex and the phenotypic rescue of *Tag-1* homozygous mutants**	Maria Savvaki[1], Kostas Theodorakis[1], **Lida Zoupi[1]**, Antonis Stamatakis[2], Simona Tivodar[1], Fotini Stylianopoulou[2], Domna Karagogeos[1] [1]IMBB and Department of Basic Science, Faculty of Medicine, University of Crete, Heraklion [2] Laboratory of Biology, School of Nursing, University of Athens, Athens
25.	**Maciej Mikolajczyk**	**A molecular viev of the CIAPIN1, a protein involved in cytosolic iron sulphur cluster biosynthesis**	L.Banci, I.Bertini, S.Ciofi-Baffoni, **M.Mikolajczyk**, J.Winkelmann University of Florence Magnetic Resonance Center (CERM) Via Luigi Sacconi 6 50019 Sesto Fiorentino (FI), Italy
26.	**Emmanouela Kallergi**	**Function and molecular interactions of the mitochondrial oxidase Erv1**	**Emmanouela Kallergi[1,2]**, Pari Kritsiligou[1,2,3], Eirini Lionaki[1,2], Michalis Aivaliotis[1], Nitsa Katrakili[1], Charalambos Pozidis[1] and Kostas Tokatlidis[1,4] [1] IMBB-FORTH, [2]Dept of Biology Univeristy of Crete; [3] present address Dept of Biochemistry University of Oxford, UK [4] Dept of Materials Science and Technology, Univ. of Crete
27.	**Afroditi Chatzi**	**Functional analysis and characterization of Mia40, a key component of the mitochondrial oxidative folding pathway**	**Afroditi Chatzi[1,2]**, Dionisia P Sideris[1,2,3], Nitsa Katrakili[1], Charalambos Pozidis[1] and Kostas Tokatlidis[1,4] [1] IMBB-FORTH, [2]Dept of Biology Univeristy of Crete; [3] present address Dept of Biology, MIT, USA [4] Dept of Materials Science and Technology, Univ. of Crete

28.	**Eirini Lionaki**	**The N-terminal shuttle of Erv1 determines the affinity for Mia40 and mediates electron transfer to teh catalytic core of Erv1**	**Eirini Lionaki**[1,2], Michalis Aivaliotis[1], Charalambos Pozidis[1] and Kostas Tokatlidis[1,3] [1] IMBB-FORTH, [2]Dept of Biology Univeristy of Crete; [3] Dept of Materials Science and Technology, Univ. of Crete
29.	**Kostas Tokatlidis**	**A novel intermembrane space targeting signal docks cysteines onto Mia40 during mitochodrial oxidative folding**	Dionisia Sideris[1,2,3], Nikos Petrakis[1,4], Nitsa Katrakili[1], Lucia Banci[5], Ivano Bertini[5], Simone Ciofi[5], Angelo Gallo[5] and **Kostas Tokatlidis**[1,6] [1] IMBB-FORTH, [2]Dept of Biology Univeristy of Crete; [3] present address Dept of Biology, MIT, USA [4] present address MAICH, Chania; [5] CERM-University of Florence; [6]Dept of Materials Science and Technology, Univ. of Crete