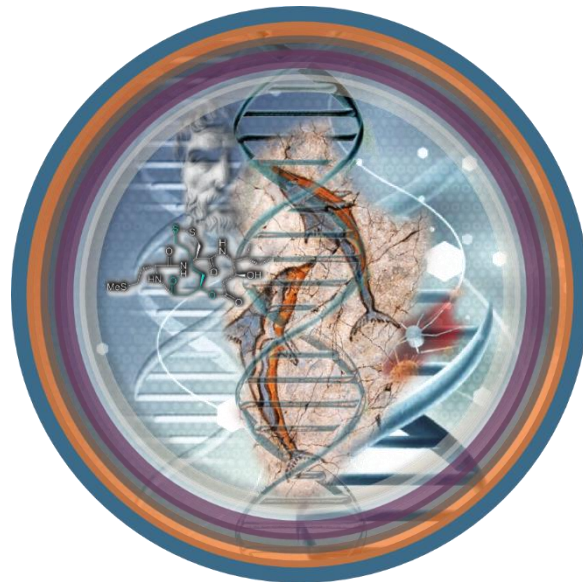




Epigenetics: From Bench To Bedside COST Conference



5 - 8 May, 2014

PROGRAMME & BIOGRAPHIES DAY 3 (07 May)

Divani Palace Acropolis
19-25 Parthenonos,
P.C 117-42 Athens, Greece



COST is supported
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Welcome from COST

Dear *Participant*,

I am pleased to welcome you to this COST Conference **Epigenetics: From Bench To Bedside**.

Since 1971, COST has supported the European science and technology community by facilitating networking and coordination amongst researchers at a European level. Our mission is to enable breakthrough scientific developments leading to new concepts and products, thereby contributing to strengthening Europe's research and innovation capacities. Our work anticipates and complements the activities of the EU Framework Programmes, by building bridges between science and technology communities across Europe and fostering excellence and inclusiveness across all domains. We do so through a unique bottom-up approach, driven by the needs of the European science and technology research communities.



Within this context, we are providing support also for this high level conference focusing on **new and emerging disciplines of biology, on building sustainable and productive framework for establishing EU as a world leader in the field of epigenetics and its positive impact on human health and wellbeing**. The conference is organised jointly by several COST Domain Committees: *Chemistry and Molecular Sciences and Technologies (CMST)*, *Biomedicine and Molecular Biosciences (BMBS)*, *Information and Communication Technologies (ICT)*, *Food & Agriculture (FA)* and has the full support of the COST Office. The event will bring together researchers from COST Actions, prominent scientists and Early Stage Researchers, entrepreneurs, and national and EU policy makers to discuss the interdisciplinary aspects of epigenetics, discover and recognize its central role in basic as well as in applied research. Special attention will be given to the details how networking in science and technology through instruments like COST Actions can foster scientific excellence in the field and its establishment as a top-priority for the EU scientific community and the related industry. I am particularly pleased to observe substantial involvement from the private sector in the event.

We wish you a pleasant conference.

Dr Monica Dietl
Director, COST Office

Programme

Day 0 Sunday 04 May 2014	
19:00-20:30	Welcome Cocktail

Day 1 Monday 05 May 2014		
09:00-09:30	Press Conference	
09:00-09:30	Registration	
09:30-10:30	Conference Opening and Welcome Addresses	
09:30-09:40	Prof. Dr Dieter Schinzer	Chair, Chemistry and Molecular Sciences and Technologies (CMST) Domain Committee, COST
09:40-09:55	Minister Prof. Athanasios Tsaftaris	Minister of Rural Development and Food of the Hellenic Republic
09:55-10:10	Minister Nicos Kouyialis	Minister of Agriculture, Natural Resources and Environment, Republic of Cyprus
10:10-10:20	COST Representative	
10:20-10:30	Prof. Serkos Haroutounian	MC Member (Greece), Action CM1106, COST
10:30-11:00	Coffee Break	
11:00-12:30	Round Table Discussion	
	Chair Prof. Roland Pochet	Professor, Université libre de Bruxelles
	Prof. Kyriacos Costa Nicolaou	Harry C. and Olga K. Wiess Professor of Chemistry, Rice University
	Prof. Christoph Klein	Chair, Department Pediatrics, Ludwig Maximilians University
	Prof. Dr Albrecht von Müller	Director Parmenides Center For The Study Of Thinking, Parmenides Foundation, Pullach/Munich, Ludwig Maximilians University of Munich
	Dr Roland Wohlgermuth	Senior Scientist, Sigma Aldrich
	Prof. Serkos Haroutounian	MC Member (Greece), Action CM1106, COST
	Prof. Dr Hans Lehrach	Director, Max Planck Institute
12:30-13:30	Lunch	
13:30-15:00	1st Session: Research Challenges and Future Strategies	
	Chair Prof. Dr Dieter Schinzer	Chair, Chemistry and Molecular Sciences and Technologies (CMST) Domain Committee, COST
13:30-14:15	Dr Roland Wohlgermuth	Senior Scientist, Sigma Aldrich
14:15-15:00	Prof. Christoph Klein	Chair, Department Pediatrics, Ludwig Maximilians University
15:00-15:30	Coffee break	

15:30-18:00	2nd Session: Epigenetics and Health	
	Chair Prof. Srećko Gajović	Chair, Biomedicine and Molecular Biosciences (BMBS) Domain Committee, COST
15:30-16:00	Dr Dimitrios Balomenos	Tenured Group Leader, National Center for Biotechnology <i>p21 regulation of autoimmune effector/memory T cell activation and epigenetic mechanisms alleviate autoimmunity development</i>
16:00-16:30	Prof. Graham Packham	Professor of Molecular Oncology, University of Southampton <i>Epigenetic Therapy for Cancer</i>
16:30-17:00	Dr Marcus Bushcbeck	Group Leader, Institut de medicina Predictiva I Personalitzada del Càncer <i>A structural chromatin component links muscle metabolism and epigenetic regulation</i>
17:00-17:30	Prof. Maria Gazouli	MC Member (Greece), Action BM1106, BM1204, BM1305, COST <i>Beyond genetics in inflammatory bowel disease: the emerging role of epigenetics</i>
17:30-18:00	Prof. Maurizio Botta	MC Member (Italy), Action CM1106 and CM1307, COST
18:00-19:45	Poster Session and Poster Award	
20:00-22:00	Dinner	

Day 2 Tuesday 06 May 2014		
08:30-09:00	Registration	
09:00-13:30	3rd Session: New Targets and Inhibitors Based on Epigenetics	
	Chair Prof. A. Ganesan	Chair, Action TD0905, COST
09:00-09:40	Prof. Dr Marianne Rots	MC Member (the Netherlands), Action TD0905, COST <i>Epigenetic Editing: locus-specific overwriting of epigenetic marks to permanently modulate a gene's expression level</i>
09:40-10:20	Prof. Mark Bedford	Full Professor, M.D. Anderson Cancer Center, University of Texas <i>Defining New Histone Reading Domains & Blocking Them</i>
10:20-10:40	Dr Andreani Odysseos	Director of Biomedical Research, EPOS-lasis R&D <i>Shedding Light onto Multifaceted Epigenetic Signals During Colorectal Cancer Progression: The Differential Role of and Free and Esterified gamma-Tocotrienol Derivatives</i>
10:40-11:00	Prof. Stuart Conway	MC Substitute Member (United Kingdom), Action CM1306, COST <i>Developing inhibitors of the CREBBP bromodomain-acetyl- lysine interaction</i>
11:00-11:30	Coffee Break	
11:30-12:10	Prof. Lucia Altucci	MC Member (Italy), Action BM1006, COST
12:10-12:50	Dr Joseph Strauss	Profesor and Head Of Division, Austrian Institute of Technology GmbH <i>Epigenetic regulation of fungal secondary metabolism and pathogenicity</i>
12:50-13:30	Prof. Ann Van Soom	Chair, Action FA 1201, COST <i>Epigenetics and Periconception environment</i>
13:30-15:00	Lunch	

15:00-18:30	4th Session: New Drugs for Epigenetics	
	Chair Prof. Dr Dieter Schinzer	Chair, Chemistry and Molecular Sciences and Technologies (CMST) Domain Committee, COST
15:00-15:30	Dr Tamara Maes	Chief Scientific Officer, Oryzon genomics <i>Use of LSD1 inhibitors for the treatment of oncological and neurodegenerative disease</i>
15:30-16:00	Prof. Dr Manfred Jung	MC Member (Germany), Action TD0905, COST <i>Inhibitors of reversible histone acetylation as potential antiparasite drugs</i>
16:00-16:30	Prof. A. Ganesan	Chair, Action TD0905, COST <i>Targeting Histone Modifying Enzymes via Natural Products</i>
16:30-17:00	Coffee Break	
	Chair Prof. A. Ganesan	Chair, Action TD0905, COST
17:00-17:40	Dr Panagis Filippakopoulos	Research Lecturer, Oxford University <i>Disruption of Lysine Acetylation Readout through selective and non-selective Bromodomain Inhibition</i>
17:40-18:00	Prof. Brian Lohse	Associate Professor, University of Copenhagen <i>Investigating the Histone code hypothesis through enzyme kinetic studies, using PTM modified peptides</i>
18:00-18:20	Prof. Dr Marc Stadler	WG leader/Core Management Group member of FA1103, COST
19:30-21:00	Dinner	
21:00-22:00	Special Night Lecture	
	Chair Prof. Dr Dieter Schinzer	Chair, Chemistry and Molecular Sciences and Technologies (CMST) Domain Committee, COST
	Keynote: Prof. Kyriacos Costa Nicolaou	Harry C. and Olga K. Wiess Professor of Chemistry, Rice University <i>Total Synthesis of Rare Natural and Designed Molecules of Biological and Medical Importance</i>

Day 3 | Wednesday 07 May 2014

08:30-09:00	Registration	
09:00-13:00	5th Session: Computational Epigenetics and Constellation Thinking	
	Chair Prof. Soulla Louca	Chair, Information and Communication Technologies (ICT) Domain Committee, COST
09:00-09:40	Prof. Joseph Papamatheakis	Prof.Mol. Biology, University of Crete, Imbb Forth
09:40-10:20	Prof. Dr Hans Lehrach	Director, Max Planck Institute <i>Virtualised drug development for an individualised medicine</i>
10:20-11:00	Prof. Giorgio Metta	Director, Istituto Italiano di Tecnologia <i>iCub: a shared platform for research in developmental robotics</i>
11:00-11:30	Coffee Break	

11:30-12:10	Prof. Dr Albrecht von Müller	Director Parmenides Center For The Study Of Thinking, Parmenides Foundation, Pullach/Munich, Ludwig Maximilians University of Munich, DE <i>New Horizons of Complexity and New Horizons to Cope with Them</i>
12:10-12:30	Prof. Yannis Missirlis	Professor, University of Patras <i>Regulation of relevant gene expressions in cells and bacteria by dynamic mechanical conditioning</i>
12:30-12:50	Dr Sotiria Psoma	University Teacher, University of Western Macedonia <i>Simultaneous enzyme immobilisation and micro-nanofabrication process for low-cost biosensor applications for diabetes care</i>
13:00-14:30	Lunch	
14:30-16:00	6th Session: Epigenetics and Structural Biology	
	Chair Prof. Emmanuel Mikros	MC Member (Greece), Action TD0905, COST
14:30-14:50	Dr Catherine Labbé	Senior Researcher, Institut National de la Recherche Agronomique <i>DNA methylation of fish germ cells and the influence of biotechnologies</i>
14:50-15:20	Prof. Antonello Mai	MC Member (Italy), Action TD0905, COST <i>Targeting DNA methylation: a medicinal chemistry approach</i>
15:20-15:40	Prof. Saulius Klimašauskas	MC Member (Lithuania), Action BM0703, COST
15:40-16:00	Dr Vassilios Myriantopoulos	Postdoctoral Fellow, University Of Athens <i>Identification of a natural product-based selective inhibitor of SWI/SNF-related bromodomains using virtual and biophysical screening and X-ray crystallography</i>
16:00-18:00	Afternoon off	
19:30-22:00	Dinner – see page 32 for details and rendez-vous timing	

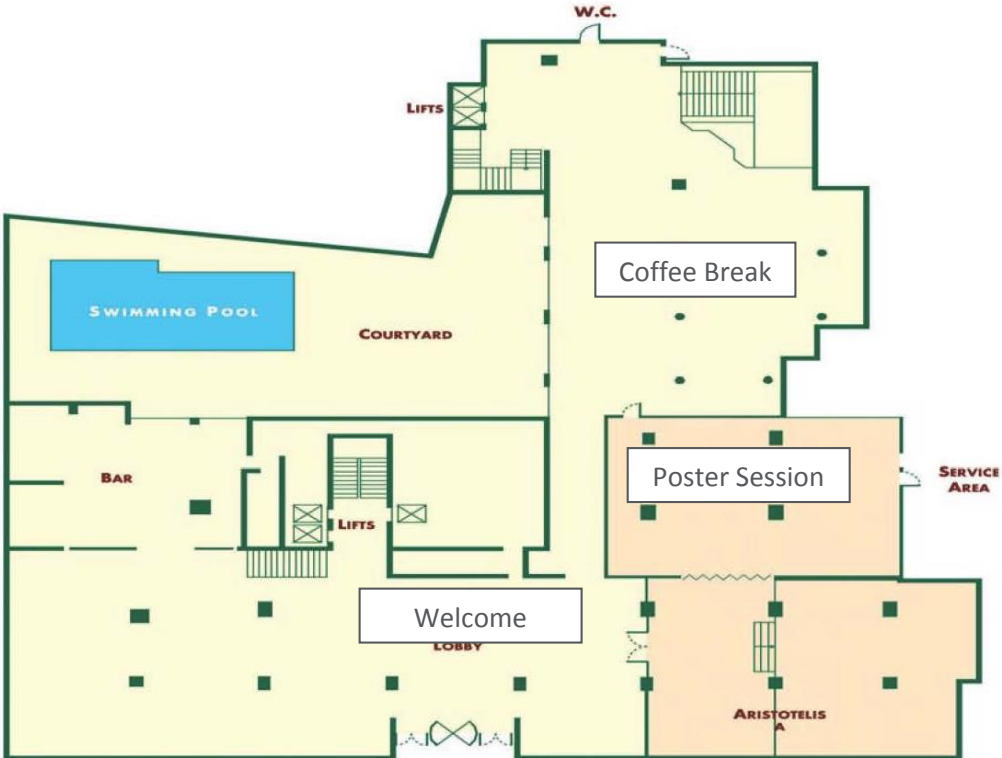
Day 4 | Thursday 08 May 2014

08:30-09:00	Registration	
09:00-13:00	7th Session: Life Style and Epigenetics	
	Chair Prof. José J. Pueyo	Chair, Food and Agriculture (FA) Domain Committee, COST
09:00-09:30	Keynote: Prof. Wim Vanden Berghe	Professor, University Antwerp <i>Epigenetic response of dietary flavanols and steroidal withanolides in cardiometabolic disorders and cancer chemoprevention: finding the needle in the haystack for personalized nutritional recommendations</i>
09:30-10:00	Prof. Tiziana A.L. Brevini	MC Member (Italy) Actions FA1201 and BM1308, COST <i>Gentle makeover: epigenetic conversion of cell fate</i>
10:00-10:30	Dr Nadine Martinet	Vice Chair, Action TD0905, COST <i>Nutritional epigenomics for an healthy aging</i>
11:00-11:30	Coffee Break	
11:30-11:50	Marijana Sokolovic	Research Associate, Croatian Veterinary Institute Poultry Centre <i>Implementation of traditional and innovative methods in research of occurrence, mutagenic and epigenetic mechanisms of trichothecene mycotoxins</i>

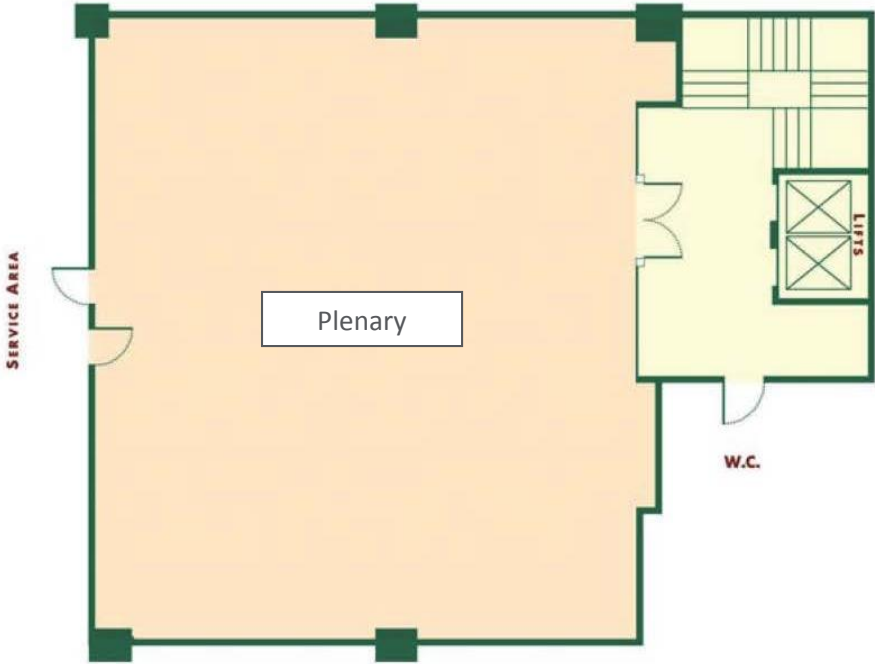
11:50-12:10	Dr Aliko Kapazoglou	MC Member (Greece), Action FA0604 <i>Epigenetic regulators and target genes during seed development and abiotic stress-response in different barley varieties</i>
12:10-12:30	Shawal Spencer	PhD Student, Helmholtz Center For Infection Research <i>Crosstalk of synthetic cassettes in defined chromosomal sites - An Epigenetics Perspective</i>
12:30-13:00	Dr Panagiotis Georgiadis	Associate Research Professor, National Hellenic Research Foundation <i>Epigenomics in environmental health: experience from the EnviroGenomarkers project</i>
13:00-14:30	Lunch	
14:30-18:00	8th Session: New Epigenetics Challenges	
	Chair Prof. Dr Dieter Schinzer	Chair, Chemistry and Molecular Sciences and Technologies (CMST) Domain Committee, COST
	Chair Prof. Soulla Louca	Chair, Information and Communication Technologies (ICT) Domain Committee, COST
	Chair Prof. Srećko Gajović	Chair, Biomedicine and Molecular Biosciences (BMBS) Domain Committee, COST
	Chair Prof. José J. Pueyo	Chair, Food and Agriculture (FA) Domain Committee, COST
18:00-19:30	Cocktail	

Floor Plans

Ground Floor



1st floor



Speakers (by alphabetical order)



Dr Catherine Labbé

Organisation Institut National de la Recherche Agronomique, FR

Position Senior Researcher

COST
Involvement

E-mail catherine.labbe@rennes.inra.fr

Biography Dr Catherine Labbé is the Head of a research group focused on fish reconstruction after cell cryopreservation, at the Fish Physiology and Genomics department (INRA, France).

She is also Partner of the French National project CRB-Anim, dedicated to the cryobanking of genomic and reproductive resources for domestic animals, where she coordinates the research on new cryopreservation methods and collections for aquatic species.

For the last few years, she has been studying the epigenetic reprogramming of somatic cells used for reconstruction by nuclear transfer, and the epigenetic alteration induced by cryopreservation. In the COST project AQUAGAMETE, she is Vice-Leader of the WG3 (Basic and applied research on gametes biochemistry and physiology, including omics). She has a background in cellular biology, cryobiology and biophysics acquired during her post doc in membrane biophysics in John Crowe's lab at UC Davis (USA), and a PhD on sperm quality and fish nutrition at the Rennes 1 University (1992).

Abstract **DNA methylation of fish germ cells and the influence of biotechnologies**

Catherine Labbé^{1*}, Alexandra Depincé¹, Pierre Milon¹, Marina Morini², Marta Riesco³, Vanesa Robles³, Juan Asturiano², Akos Horvath⁴, Paz Herraez⁵, Anne Gabory⁶, Hélène Jammes⁶

¹INRA, Fish Physiology and Genomics, Campus de Beaulieu, Rennes France

²Institute of Animal Science and Technology, Universitat Politècnica de València, Valencia, Spain ³INDEGSAL and Molecular Biology, University of León, León, Spain ⁴ Department of Aquaculture, Szent István University, Gödöllő, Hungary ⁵Department of Molecular Biology, University of León, León, Spain ⁶INRA, Biology of Development and Reproduction, Domaine de Vilvert, Jouy en Josas, France

It is known in fish that alteration in DNA methylation of the embryos is associated with severe developmental defects. It is more recently that the methylation pattern of sperm DNA was suspected to serve as a matrix for the methylation pattern of genes which are expressed early after the embryonic genome activation, at the 1000 cells stage (mid-blastula transition). Namely, some genes required early during development bear permissive epigenetic marks, although sperm chromatin is highly methylated in fish. Additionally, the erasure-establishment of DNA methylation in some genes is important for the quality of fish embryos after fertilization. The objective of this presentation is to summarize the current knowledge on DNA methylation in fish spermatozoa, and in fish primordial germ cells and embryonic cells. A better characterization of the link between gamete epigenetic profile and embryo quality is necessary to decipher whether the biotechnologies used for fish genetic resources cryopreservation could affect DNA methylation pattern. Some recent data will be presented and

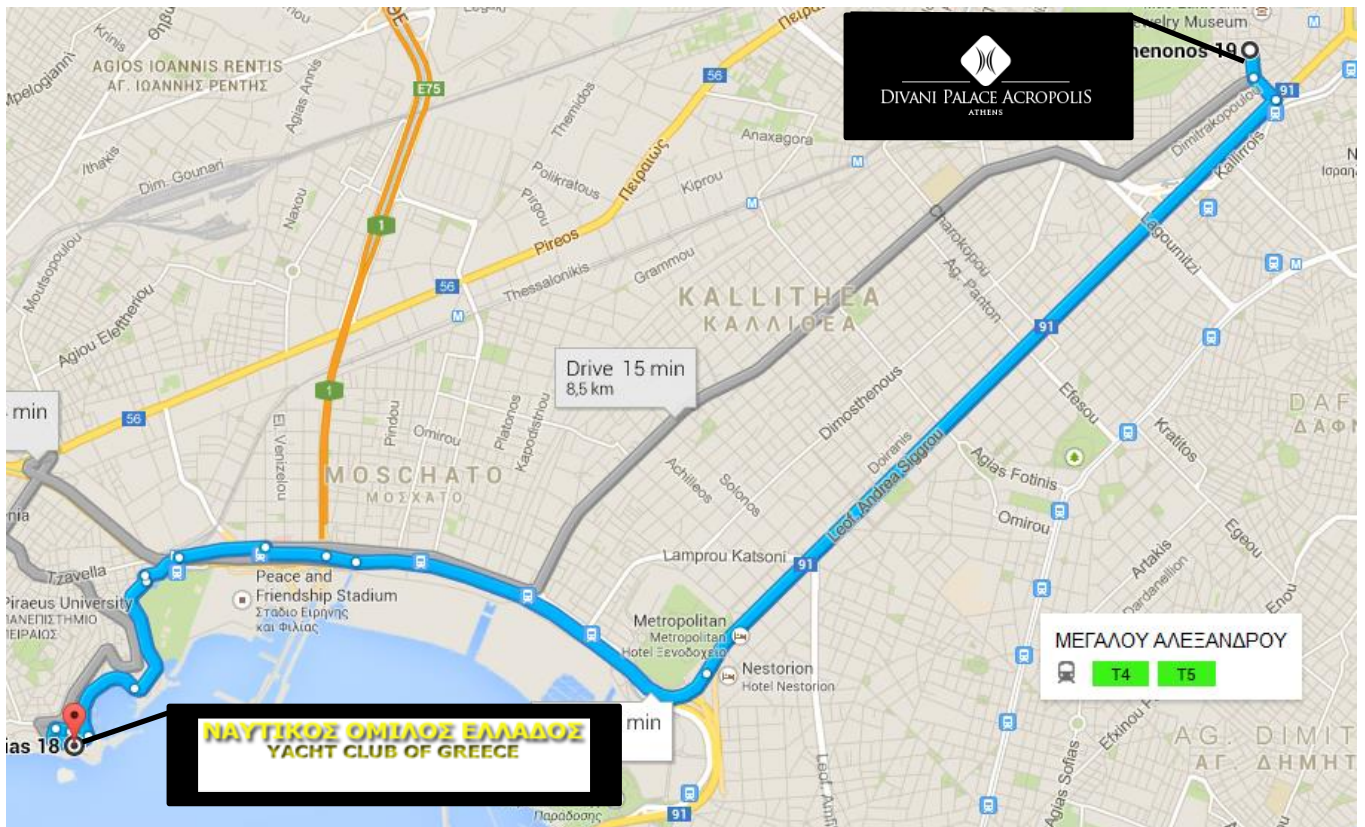
discussed in the general perspective of cryobanking of the fish genetic resources without alterations in genome expression in the offspring.

This work is supported by the CRB-Anim project "Investissements d'Avenir" ANR-11-INBS-0003 and by COST Action FA1205: AQUAGAMETE

Dinner Location (Wednesday 07 May 19:30)

BUS Group Departure from the Divani Palace Acropolis Lobby at 19:00 sharp DO NOT BE LATE

Yacht Club of Greece, 18, Karagiorgi Servias St., 18533 Piraeus (+/- 9km)



Organising Committee

Prof. Anagnostis Argiriou, MC Member (Greece), Actions ES0601 and ES0806, COST

Dr Inga Dadeshidze, Science Officer, Biomedicine and Molecular Biosciences (BMBS), COST Office

Dr Lucia Forzi, Science Officer, Chemistry and Molecular Sciences and Technology (CMST), COST Office

Prof. Srećko Gajović, Chair, Biomedicine and Molecular Biosciences (BMBS) Domain Committee, COST

Prof. A. Ganesan, Chair, Action TD0905, COST

Prof. Soulla Louca, Chair, Information and Communication Technologies (ICT) Domain Committee, COST

Prof. Emmanuel Mikros, MC Member (Greece), COST Action TD0905, COST

Prof. José J. Pueyo, Chair, Food & Agriculture (FA) Domain Committee, COST

Prof. Dr Dieter Schinzer, Chair, Chemistry and Molecular Sciences and Technology (CMST) Domain Committee, COST

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COST Domains linked to the Conference



Biomedicine and Molecular Biosciences (BMBS)

BMBS covers all areas of medicine as practiced in Europe and basic, preclinical and clinical medical research developed to materialise the “bench to bedside” concept.

www.cost.eu/bmbs



Chemistry and Molecular Sciences and Technologies (CMST)

CMST has the mission to foster European expertise in discovering, understanding, producing and manipulating molecular species.

www.cost.eu/cmst



Food and Agriculture (FA)

FA covers all aspects of research in the field of agricultural and food sciences in its widest sense. The primary aim of the Domain is to encourage networking of research in any field linked to these activities as well as the related demands and needs.

www.cost.eu/fa



Information and Communication Technologies (ICT)

ICT covers scientific and technical research in all areas of information and communication science and technologies.

www.cost.eu/ict

More about the European Cooperation in Science and Technology at www.cost.eu

About COST

COST (European Cooperation in Science and Technology) is Europe's longest-running intergovernmental framework for cooperation in science and technology funding cooperative scientific projects called 'COST Actions'. With a successful history of implementing scientific networking projects for over 40 years, COST offers scientists the opportunity to embark upon bottom-up, multidisciplinary and collaborative networks across all science and technology domains. Beyond the EU-27 member states, COST countries include Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Iceland, Norway, Serbia, Switzerland and Turkey. Israel is a cooperating state. Beyond the European borders, COST opens the European Research Area (ERA) to cooperation with non-European countries on the basis of mutual benefit.

■ www.cost.eu



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