CAREX Conference on Life in Extreme Environments

18-20 October 2011

Stillorgan Park Hotel, Dublin, Ireland#

PRELIMINARY PROGRAMME

CAREX CONFERENCE - PRELIMINARY PROGRAMME

18 October 2011	
9.00-10.30	**Opening Session** Dr. Cynan Ellis-Evans (BAS, UK - CAREX Coordinator)
	Welcome Address CAREX Roadmap ***Opening Lecture*** *Prof. Andrew Clarke (UK)*
10.30 - 12.30	**Plenary Session 1a: Biodiversity, bioenergetics and interactions in extreme environments**
	Co-chairs: Prof. Katja Sterflinger (ACBR, Austria) Dr. Cinzia Verde (CNR - IPB, Italy)
10.00 - 10.30	***Keynote Lecture - Viruses in Extreme Geothermal Environments*** *Dr. David Prangishvili (Institut Pasteur, France)*
10.30-11.00	***Coffee Break***
11.00-12.40	*Plenary Session 1a - Cont'd* *15'+5' presentations - 5 presentations*
12.40-14.00	***Lunch***
14.00-16.00	**Plenary Session 1b: Biodiversity, bioenergetics and interactions in extreme environments**
	15'+5' presentations - 6 presentations
16.00-16.30	***Coffee Break***
16.30-18.30	**Poster session**

19 October 2011	
9.00-10.30	**Plenary Session 2a: Stressful environments - responses, adaptation and evolution**
	Co-chairs: Prof. Guido di Prisco (CNR - IPB, Italy) Dr. Cynan Ellis-Evans (BAS, UK)
9.00-9.30 ***9.30-10.30***	***Keynote lecture - The biodiversity of resistance to warming in Antarctic marine ectotherms*** *Prof. Lloyd Peck (BAS, UK)* *15'+5' presentations - 3 presentations*
10.30-11.00	***Coffee Break***
11.00-12.20	**Plenary Session 2b: Stressful environments - responses, adaptation and evolution**
	15'+5' presentations - 4 presentations
12.20 - 14.00	***Lunch***
14.00-15.20	**Plenary Session 2c: Stressful environments - responses, adaptation and evolution**
	15'+5' presentations - 4 presentations
15.20-15.50	***Coffee Break***
15.50-17.10	**Plenary Session 2d: Stressful environments - responses, adaptation and evolution**
	15'+5' presentations - 4 presentations

20 October 2011				
9.00-9.30	***Keynote Lecture - Evolution selects dynamics: neutron scattering results on molecular adaptation to extreme conditions and the role of water*** *Dr. Giuseppe Zaccai (Institut Laue Langevin, France)*			
9.40-12.20	**Plenary Session 3a: Contributions of life in extreme environments to biogeochemical cycles and responses to environmental change**			
	Co-chairs: Dr. Alexandre Anesio (University of Bristol, UK) Dr. Carlo Calfapietra (CNR-IBAF, Italy)			
9.30-10.00	***Keynote Lecture - What is stress in an ecological context?*** *Prof. Christian Körner (University of Basel, Switzerland)*			
10.00-10.30	***Coffee Break***			
10.30-12.10	**Plenary Session 3b: Contributions of life in extreme environments to biogeochemical cycles and responses to environmental change**			
	15'+5' presentations - 5 presentations			
12.10 - 13.30	***Lunch***			
13.30-18.00	**Splinter Session S1: Life and habitability**	**Splinter Session S2: Stressful environments - responses, adaptation and evolution**	**Splinter Session S3: Polar genomics and biochemistry (IASC/SCAR)**	**Splinter Session S4: Deep Sea Extreme environments**
	Co-chairs: Prof. Howell Edwards (University of Bradford, UK) Dr. Josef Elster (IB-CAS, Czech Republic) Dr. Felipe Gomez (INTA-CAB, Spain)	**Co-chairs:** TBC	**Co-chairs:** Dr. Stefano Ventura (CNR - ISE, Italy) Dr. Liz Bagshaw (University of Bristol)	**Co-chairs:** Prof. Mohamed Jebbar (IUEM, France) Dr. Didier Jollivet (Station Biologique de Roscoff, France)
	15'+5' presentations - 10 presentations	*15'+5' presentations - 11 presentations*	*15'+5' presentations - 13 presentations*	*15'+5' presentations - 12 presentations*

LIST OF SELECTED CONTRIBUTIONS AND PRESENTING AUTHORS

(pending confirmation of attendance)

Session 1: Biodiversity, bioenergetics and interactions in extreme environments

Keynote lecture

Viruses in Extreme Geothermal Environments
David Prangishvili (Institut Pasteur, France)

Oral Presentations

Bacterial diversity of initial soils on Larsemann Hills, East Antarctica
Bajerski Felizitas (Alfred-Wegener-Institut für Polar- und Meeresforschung, Germany)

Environmental severity determines soil microbial functional diversity and its spatio-temporal activity in a
Yosef Steinberger (Faculty of Life Sciences, Israel)

Proteogenomics of a marine sediment community dominated by ANME-1
Runar Stokke (University of Bergen, Norway)

Microbial diversity of hypersaline environments: a metagenomic approach
Antonio Ventosa (University of Sevilla, Spain, Spain)

Biodiversity associated with pockmarks: extreme habitats contribute to increase gamma diversity in the deep
Daniela Zeppilli (Università Politecnica delle Marche, Dipartimento di Scienze del Mare, Italy)

Biodiversity of metazooplankton in acidic mining lakes: A metacommunity perspective and microevolutionary processes
Maria Belyaeva (Brandenburg University of Technology at Cottbus, Department of Freshwater Conservation,

Microbial diversity in volcanic environments - On Earth (and elsewhere?)
Charles Cockell (University of Edinburgh, United Kingdom)

New biotechnological applications utilizing novel species of “redox-active” acidophilic bacteria
Sabrina Hedrich (Bangor University, United Kingdom)

Conjugating effects of symbionts and environmental factors on gene expression in vent mussels
François Lallier (UPMC - Univ. Paris 6 & CNRS, France)

Desiccation Tolerant Microorganisms: A Contribution for the Maintenance of Biodiversity in Arid and Semi-
Maximino Manzanera (University of Granada, Spain)

Structure and function of microbial communities associated with low-temperature hydrothermal venting and formation of barite chimneys at Loki’s Castle vent field
Ida Helene Steen (University of Bergen, Norway)

Poles apart: Interhemispheric contrasts in diatom diversity driven by climate and tectonics
Wim Vyverman (Ghent University, Belgium)

Poster Presentations

Identification of two FeFe-hydrogenases in alkalithermophile Thermobrachium celere by in silico analysis
Alessandro Ciranna (Tampere University of Technology, Finland)

Characterization of thermal spring cyanobacteria from West Bengal, India
Manojit Debnath (Indian Institute of Science Education and Research, Kolkata (IISER-K), India)

Changes in Bacterial Community Composition of Surface Snow around Three Sampling Sites in East Antarctica
Anna Lopatina (Institute of Molecular Genetics, Russia)

Diversity of the Plant Growth Promoting Microbiome associated to Olea europea growing in arid soils of south
Ramona Marasco (University of Milan, Italy)

Law-Racovita Station (69o23'16''S) from Larsemann Hills and Antarctic Research Expeditions as terrestrial analogues for a extraterrestrial mission
Iulia Nita (Ben-Gurion University of the Negev, Romania)

Determining unpalatable defenses in lipophilic extracts from antarctic marine organisms by feeding bioassays with a macropredator and a mesograzer
Laura Núñez Pons (Dept. Biologia Animal (Invertebrats), University of Barcelona, Spain)

Mesocosms of aquatic bacterial communities from the cuatro ciénegas basin (coahuila, mexico): a tool to test bacterial community response to environmental change
Silvia Pajarers Moreno (Universidad Nacional Autónoma de México, Mexico)

A jelly - and mud feeding fish exploiting extreme environments is redressing the balance in an overfished
Anne Christine Utne Palm (Dept. of Biology, University of Bergen, Norway)

Bacterial Diversity of Arzakan Hot Mineral Spring (Armenia).
Hovik Panosyan (Yerevan State University, Armenia)

Metagenomic exploration of the newly discovered hydrothermal vent sites in the submarine Kolumbo and Santorini volcanoes, Greece: Preliminary results
Paraskevi Polymenakou (Hellenic Centre for Marine Research, IMBG, Greece)

Evolutionary history and niche differentiation of Exiguobacterium populations, a halophilic bacterial genus living at Cuatro Cienegas Basin, Mexico.
Eria A Rebollar (Universidad Nacional Autonoma de Mexico, Mexico)

Short in distance – extreme in environmental conditions, determine composition, dynamics, and diversity in soil free-living nematode community
Yosef Steinberger (Faculty of Life Sciences, Israel)

Transcriptomic approach of the response to environmental stressors in the hydrothermal vent mussel Bathymodiolus azoricus
Arnaud Tanguy (UMR 7144 UMPC - CNRS, France)

Characterization of the first eukaryotic cold-adapted patatin-like phospholipase from the ciliate Euplotes
Guang Yang (University of Camerino, Italy)

Electron microscopic detection of microorganisms in the samples of ice wedges in situ

Maria Cherbunina (Moscow State University, Russia)

Cold-adapted yeasts from Austral Argentine Sea
Virginia De Garcia (Universidad Nacional del Comahue - INIBIOMA, Argentina)

Bioprospecting from Polar marine sediments
Concetta De Santi (Istitute of Protein Biochemistry, National research Council, Italy)

Microbial Ecology of Penguins in Extreme Polar Regions
Meagan Dewar (Deakin University, Australia)

Open-Top Chambers experiment on microbial crusts, Sor Rondane Mountains, Antarctica (72°S)
Josef Elster (Institute of Botany AS CR, Czech Republic)

Significant microbial stratification of water column of freshwater Lake Radok, East Antarctica with dominance of actinobacterium “Candidatus” Planktophila limnetica
Denis Karlov (Petersburg Nuclear Physics Institute RAS, Russia)

Methanogenesis and Associated Taxa of Siberian Peat Bog Soils
Kirill Krivushin (Institute of Physicochemical and Biological Problems of Soil Science, Russia)

Reduction of Plant and microorganism biodiversity in soils contaminated with explosives
Baiba Limane (Institute of Microbiology and Biotechnology, Latvia)

Describing Prasiolales diversity in Antarctica
Mónica Joyce Moniz (National University of Ireland, Ireland)

Current distribution of Colobanthus quitensis in the Argentine Islands region
Ivan Parnikoza (Institute of Molecular Biology and Genetics, Ukraine)

Isolation and Identification of Cellulase producing Extremophilic Bacteria
Solai Ramatchandirane Prabagaran (Bharathiar University, India)

Survival capability of autotrophic microbes in glacial environments: are there class differences ?
Marian Yallop (University of Bristol, United Kingdom)

Plenary Session 2 and S2: Stressful environments - responses, adaptation and evolution

Keynote lecture

The biodiversity of resistance to warming in Antarctic marine ectotherms
Lloyd Peck (British Antarctic Survey, United Kingdom)

Oral Presentations

Denitrification and lateral gene transfer among thermophiles
José Berenguer (Universidad Autónoma de Madrid, Spain)

Active biogenic microbial carbonates in Green Lakes, James Ross Island, Antarctica
Josef Elster (Institute of Botany AS CR, Czech Republic)

The deep-diving hooded seal – a model for studies of extreme mammalian hypoxia tolerance
Lars Folkow (University of Tromsø, Norway)

The first Metazoa Living in Permanently Anoxic conditions
Cristina Gambi (Polytechnic University of Marche, Italy)

Altered tolerance of high and low temperatures in tobacco chloroplast transformants expressing genes encoding key enzymes involved in scavenging reactive oxygen species
Olga Grant (NUI Maynooth, Ireland)

Toolkit for building a desiccation- and radio-resistant organism: lessons from comparative genomics of an anhydrobiotic midge.
Oleg Gusev (National Institute of AgroBiological Problems, Russia)

Four years of plant proteomics in Chernobyl area
Martin Hajduch (Institute of Plant Genetics and Biotechnology, Slovak Academy of Sciences, Slovakia)

Neuroglobin in the brain and retina of Antarctic notothenioid fishes
Roberta Russo (Institute of Protein Biochemistry, National Research Council, Italy)

Remote environmental signals affect goby abundance on the hypoxic shelf of the Northern Benguela: Anoxia tolerant fish thrive when oxygen level decrease
Anne Gro Vea Salvanes (University of Bergen, Norway)

Microcolonial fungi and extreme environmental conditions: cellular response at the proteome level
Katja Sterflinger (University of Natural Resources and LIfe Sciences Vienna, Department of Biotechnology,

The Nature of Extremophiles Genomes Clusterization by Detrended Fluctuation Analysis
Yan Stirmanov (Moscow State University, Physics Faculty, Russia)

Evolution and differentiation of the sister cyanobacterial genera Cyanospira and Anabaenopsis in response to the extreme life conditions of hyperalkaline soda lakes
Stefano Ventura (National Research Council of Italy, Institute of Ecosystem Study, Italy)

Globins and oxidative stress in polar marine organisms
Cinzia Verde (National Research Council, Institute of Protein Biochemistry, Italy)

Proteomic response of D. radiodurans to ionizing radiation stress
Bhakti Basu (Bhabha Atomic Research Centre, India)

Impact of compatible solutes on desiccation tolerance of (hyper-) thermophilic microorganisms
Kristina Beblo-Vranesevic (German Aerospace Center, Germany)

Dissecting the Antarctic stress response at the molecular level
Melody Clark (British Antarctic Survey, United Kingdom)

Adaptation of lichens to harsh terrestrial and extraterrestrial environments
Rosa De la Torre Noetze (INTA (Instituto Nacionald de Tecnica Aeroespacial), Spain)

Adaptation Strategies of Antarctic Lichens in Polar Habitats and during Mars Simulation experiments
Jean-Pierre Paul De Vera (German Aerospace Center, Germany)

Root growth pattern is altered by simulated space environment (SSE): effect of microgravity and radiations
Alessio Fortunati (Institute of Agroenvironmental and Forest Biology - National Research Council, Italy)

Evolution of adaptations to chronic hypoxia in invertebrates from deep-sea chemosynthetic communities
Stephane Hourdez (CNRS, France)

Pyrococcus yayanosii CH1, the first obligate piezophilic hyperthermophilic archaeon isolated from a deepest deep-sea hydrothermal vent
Mohamed Jebbar (Université de Brest, France)

Acclimation and adaptation to hypoxia resolved through transcriptional profiling of in situ fixed zooplankton
Rainer Kiko (Leibniz Institute of Marine Sciences (IFM-GEOMAR), Germany)

On the emission of isoprene by the resurrection plant Xerophyta humilis and the relationship between isoprene and desiccation tolerance.
Francesco Loreto (Consiglio Nazionale delle Ricerche, Italy)

Unravelling the Adaptive Molecular Mechanisms of an Enzyme Facing Various Extreme Environmental
Dominique Madern (Institut of Structural Biology CNRS-CEA-UJF, France)

Unraveling extremophiles diversity of volcanic habitats
Francesca Mapelli (University of Milan, Italy)

Special adaptations to soil salinity in a desert plant: Halotropism in Bassia indica and the use for salt
Oren Shelef (Ben Gurion University of the Negev, Israel)

Poster Presentations

LabHorta, a land-based aquarium environment to investigate long-term acclimatization processes in the hydrothermal vent mussel *Bathymodiolus azoricus*
Valentina Costa (University of the Azores, Portugal)

Developing novel biophysical tools to explore protein adaption in stressful environments
Lorna Dougan (University of Leeds, United Kingdom)

Chlorella mirabilis as a potential species for biomass production in low temperature environment
Jana Kviderova (University of South Bohemia, Faculty of Science, Czech Republic)

Response to light stress of red algae Rhodella violacea: a timescale of photoprotective strategies
Konstantin V. Neverov (A.N.Bach Institute of Biochemistry RAS, Russia)

Transcriptome responses of Bacillus subtilis spores after 18 months of exposure to space or simulated Mars environments on the EXPOSE-E Experiment PROTECT
Wayne Nicholson (University of Florida, United States)

Arctic seals in a marine desert - do they need seawater for water balance?
Erling Sverre Nordoy (University of Tromso, Norway)

Effects of simulated low gravity on DNA damage/repair dynamics in neuronal network after/during ionizing radiation exposure.
Giuseppe Pani (Belgian Nuclear Research Centre // Ghent University, Belgium)

The transcriptome of the Antarctic ciliate Euplotes focardii: hints of cold adaptation.
Sandra Pucciarelli (University of Camerino, Italy)

Differences in the response of the extremophile lichen Rhizocarpon geographicum to UV-B and UV-C radiation being in a hydrated or a desiccated state
Francisco Javier Sánchez Iñigo (INTA - Spanish Institute of Aerospace Technology, Spain)

Study of symbiosis in deep-sea mussels: a comparative transcriptomic approach on three Bathymodiolinae
Arnaud Tanguy (UMR 7144 UMPC - CNRS, France)

Influence of thermal conditions for habitat of algae Ulva sp. on fatty acid composition and phase transitions of their polar lipids
Natalia Vorobyeva (Far Eastern Federal University, Russia)

Responses of Antarctic krill (*Euphausia superba*) to variations of environmental temperature
Ricci Lorenzo (Station Biologique de Roscoff,, France)

Radiation (Simulated Space Radiation) induced NF-kB signaling cascade study in mammalian cells by improved detection systems
Arif Chishti (German Aerospace Institute, Germany)

Pre-adapted to the Maritime Antarctic? - Stress tolerance of the midge, Eretmoptera murphyi
Matthew Everatt (University of Birmingham, United Kingdom)

Evolution of Bacillus subtilis to enhanced hypobaric growth: changes in expression of the des gene encoding fatty acid desaturase
Patricia Fajardo-Cavazos (University of Florida, United States)

Polar and temperate filamentous green alga Klebsormidium (Streptophyta) in different irradiations and temperatures; ecophysiological and morphological responses.
Lubomir Kovacik (Comenius University in Bratislava, Slovakia)

Multiple stress responses in the extreme halophilic Archaea Halobacterium salinarum.
Vincent Marty (Institut de Biologie Structurale J.P. Ebel, France)

Leaf gas exchange of plant species grown nearby hot springs
Mauro Medori (National Research Council, Italy)

Thermal adaptations in related hydrothermal vent and shallow water shrimp
Andrew Oliphant (University of Southampton, United Kingdom)

The effect of an enhanced UV AB : PAR ratio on pigmentation and ultrastructure of selected polar soil algae
Martina Pichrtova (Institute of Botany, Academy of Sciences of the Czech Republic, Czech Republic)

Hermaphroditism in the Antarctic brooding bivalve Lissarca miliaris - maximising reproductive output in an extreme cold environment
Adam Reed (University of Southampton, United Kingdom)

Endophytes from desert plants alleviate water stress in pepper
Eleonora Rolli (University of Milan, Italy)

In vivo imaging of stressed cells of polar Phormidium strains (Cyanobacteria, Oscillatoriales)
Daria Tashyreva (University of South Bohemia, Faculty of Science, Czech Republic)

Experimentally evolved desiccation and ultraviolet radiation tolerance in the bacterium Escherichia coli
Brian Wade (Michigan State University, United States)

Marine science and climate change in extreme environments
Paola Campus (European Science Foundation, Life, Earth, Environment and Polar Sciences, France)

Session 3: Contributions of life in extreme environments to biogeochemical cycles and responses to environmental changes

Keynote lecture

What is stress in an ecological context?
Christian Körner (University of Basel, Switzerland)

Oral Presentations

Microbial Processes at the surface of Glaciers and Ice Sheets
Alexandre Anesio (University of Bristol, United Kingdom)

Autotrophic carbon fixation: Advances in biogeochemical interactions, with function based approaches on a metagenomic level as a prospect.
Stefanie Böhnke (University of Hamburg, Germany)

CO2 fluxes among different vegetation types in permafrost areas at Anchorage Island (Marguerite Bay, Antarctic Peninsula)
Nicoletta Cannone (Insubria University, Italy)

Sulfide variability in deep sea chemosynthetic habitats: insights from in situ continuous monitoring
Leonardo Contreira (Université Pierre et Marie Curie, France)

Session S1: Life and Habitability

Keynote lecture

Evolution selects dynamics: neutron scattering results on molecular adaptation to extreme conditions and the role of water

Giuseppe Zaccai (Institut Laue Langevin, France)

Oral Presentations

Exploring potential contributions of soil microbes to Martian terraforming through soil simulation
Matt Aitkenhead (The James Hutton Institute, United Kingdom)

Bacterial quorum sensing and astrobiology
Katinka Apagyi (University of Cambridge, United Kingdom)

Modified for Survival: The role of protein post-translational modifications in hyperthermophily and
Adrienne Kish (Institut de Génétique et Microbiologie, France)

Reactive Oxygen Species on the Early Earth and Survival of Bacteria
Melike Balk (Utrecht University, Netherlands)

Permafrost: Gatekeeper of an Extreme Environment and its Natural History
Lucas Hannell (Expedition / Research Program, France)

Habitability of the martian subsurface for methanogenic archaea
Euan Monaghan (Planetary and Space Science Research Institute, The Open University, United Kingdom)

Geographic borders of life in Victoria Land, Antarctica
Silvano Onofri (Univerità della Tuscia, Italy)

Microgravity as stress factor for plant growth and development in space
Camilla Pandolfi (European Space Agency - Advanced Concept Team, Netherlands)

Stress resistance of Acidithiobacillus ferrooxidans and Sulfobacillus thermosulfidooxidans
Petra Rettberg (DLR, Institute of Aerospace Medicine, Radiation Biology Department, Germany)

Poster Presentations

In search for the optimal growing conditions in captivity for Antarctic snow microalgae
Pedro Cid-Agüero (Universidad de Magallanes, Chile)

Isolation of microorganisms from subsurface environments and its significance for astrobiology
Sergiu Fendrihan (Romanian Bioresource Centre, Romania)

Geomorphological setting and climate change as major controls for the growth of glacial relict plants in
Emil Gachev (Southwestern University "Neofit Rilski", Bulgaria)

Could semiarid streams be used as sentinels of climatic change? Ecologic requirements of benthic algae populations from a semiarid stream from south-east Spain and their potential use as bioindicators
María Eugenia García Fernández (Murcia University, Spain)

Baltic cod: Survival and reproduction at extreme pH levels
Hans-Harald Hinrichsen (IfM-GEOMAR, Germany)

Features of volcanic glass alteration in Kamchatka
Elena Kuznetsova (Lomonosov Moscow State University, Russia)

Rock inhabiting microcolonial fungi: dormant states and active phases in extreme environments
Kristina Zakharova (iversity of Natural Resources and Life Sciences, Vienna, Austria)

Anaerobic rock weathering on Earth (and on Mars?)
Sophie Nixon (University of Edinburgh, United Kingdom)

Root growth pattern in simulated microgravity: circumnutation or thigmotropism?
Paola Tassone (Institute of Agro-environmental and Forest Biology – National Research Council (IBAF-CNR),

Session S3: Polar genomics and biochemistry

Oral Presentations

How Bacterial Communities Use Nitrogen Amendments in Hydrocarbon-Contaminated High Arctic Soils
Terrence Bell (McGill University, Canada)

Biosignature preservation in Arctic glacial ice
Liane G. Benning (University of Leeds, United Kingdom)

Little life on polar earth
Karen Cameron (University of Washington, United States)

The 2/2 hemoglobin of cold-adapted bacterium *pseudoalteromonas haloplanktis* Tac125
Daniela Giordano (National Research Council- Institute of Protein Biochemistry, Italy)

Towards the use of new sea ice biomarkers within polar marine ecosystems
Aurelie Goutte (LOCEAN CNRS UMR7159, France)

Copepods in the White Sea: Life on the edge
Daria Martynova (Zoological Institute RAS, Russia)

The contribution of permafrost to production of methane as greenhouse gas
Elizaveta Rivkina (Institute of Physicochemical and Biological Problems in Soil Science, Russian Academy of Science, Russia)

E-Tracers: A new subglacial sensor for in situ measurements of water beneath ice masses
Elizabeth Baghsaw (University of Bristol, UK)

Intron features of key functional genes involved in carbon and nitrogen metabolism in marine phytoplankton
Punyasloke Bhadury (Indian Institute of Science Education and Research-Kolkata, India)

Passive warming experiments in Antarctica: a model for effects of climate change?
Ad Huiskes (Netherlands Institute of Ecology, Netherlands)

Session S4: Deep Sea extreme environments

Oral Presentations

Biopropespecting for novel proteases in deep-sea hyperthermophilic Pyrococcales
Alexandre Appolaire (IBS Institut de Biologie Structurale / University Joseph Fourier Grenoble I, France)

A deep-sea hydrothermal vent mussel turned into a new animal-model to study invertebrate immune, wound and hyperbaric responses
Raul Bettencourt (University of the Azores-IMAR Center, Portugal)

Globins in vesicomyid bivalves as an adaptation to hypoxic environments
Carole Decker (Station Biologique Roscoff UPMC-CNRS UMR 7144, France)

Wood falls in deep sea canyons as microbial diversity hotspots
Sonja Fagervold (UPMC, France)

On the origin of thermophily in the Alvinellidae family: A genomic scan approach.
Eric Fontanillas (Station Biologique de Roscoff - CNRS UMR7144, France)

Thermal Stress Response of Deep-Sea Hydrothermal Vent Organisms
Bruce Shillito (University Pierre et Marie Curie, France)

Respiratory response of starved and fed specimens of the deep-sea lysianassoid amphipod *Stephonyx biscayensis* to temperature and hydrostatic pressure
Alastair Brown (University of Southampton, United Kingdom)

Phylogenetic and functional diversity of microbial mats growing on the surface of active hydrothermal chimneys in the Loki's castle vent field.
Hakon Dahle (University of Begen, Centre for GeoBiology, Norway)

Deep-sea molecular adaptation: effects of high hydrostatic pressures on the structure and function of macromolecules.
Eric Girard (Institut de Biologie Structurale J.-P. Ebel, France)

Protein expression and metalloproteinase activity in deep-sea hydrothermal mussel Bathymodiolus azoricus hemolymph
Ines Martins (University of Azores, Portugal)

High hydrostatic pressure adapted salt and heat stress response in the piezo-hyperthermophilic archeon, Thermococcus barophilus
Phil Oger (CNRS, France)

Ecophysiological constraints on the evolution of cold water invertebrates: the global radiation history of deep-sea king crab
Sven Thatje (National Oceanography Centre, Southampton, United Kingdom)