

9TH EUROPEAN WORKSHOP ON ASTROBIOLOGY EANA'09,
Royal Library, Lippens Auditorium, 4 Boulevard de l'Empereur, Brussels
October 12-14, 2009

Poster session: 12 October 2009, 17:00-18:30

Posters will be on display during the whole workshop.

Date: 12 October 2009, 17:00-18:30	
Part 1: In homage to Darwin's theory of evolution: Prebiotic chemical evolution	
Co-chair: A. Schwartz	
Co-chair: H. Cottin	
No.	
P1.1	Thermal Behavior of Non-Racemic Amino Acids in the Solid State E. Lepeltier [1], S. Fox [2], H. Strasdeit [2] [1] <i>Department of Chemistry, Ecole Normale Supérieure, Paris, France</i> ; [2] <i>Department of Bioinorganic Chemistry, Institute of Chemistry, University of Hohenheim, Stuttgart, Germany</i>
P1.2	The Role of Amino Acids in the Abiotic Chemical Evolution on Earth and Earth-like Planets S. Fox [1] and H. Strasdeit [1] [1] <i>Department of Bioinorganic Chemistry, University of Hohenheim, Stuttgart, Germany</i>
P1.3	Chemical Complexity in the H₃PO₂:Pyruvate System. Implications for Abiogenesis K. E. R. Marriott[1], D. E. Bryant[1], E. Bullough[1], L. Wang[2], S. A. Macgregor[3], T. P. Kee[1] [1] <i>School of Chemistry, University of Leeds, Leeds, UK</i> ; [2] <i>School of Chemistry, South China University of Technology, Guangzhou, China</i> ; [3] <i>School of Engineering & Physical Sciences, Heriot-Watt University, Edinburgh, UK</i>
P1.4	The Influence of Various Clay Matrices on the Thermal Behavior of Glycine P. Dalai [1], H. Strasdeit [1] [1] <i>Department of Bioinorganic Chemistry, Institute of Chemistry, University of Hohenheim, Stuttgart, Germany</i>
P1.5	Accretion of interplanetary and interstellar dust particles as an important source of the prebiotic organic on the early Earth A. Pavlov [1] and N. Dolindo [2] [1] <i>Ioffe Physico-Technical Institute of The Russian Academy of Sciences, Saint-Petersburg, Russia</i> ; [2] <i>Academic Physics and Technology University of Russian Academy of Sciences, Saint-Petersburg, Russia</i>
P1.6	The Estimation of Conditions for Lightning's Discharges at early Earth's Atmosphere Evolution Y. Serozhkin [1] [1] <i>Institute of Semiconductor Physics, Kyiv, Ukraine</i>
P1.7	Universal succession of the origin-of-life process on a planet [1] V. N. Kompanichenko [1] <i>Institute for Complex Analysis, Birobidzhan, Russia</i>
P1.8	Conservation and propagation of chirality. A case study Y. Keheyani [1], M. Speranza [2], A. Filippi [2] [1] <i>ISMN-CNR, INAF, c/o Dept. of Chemistry, University "La Sapienza", Rome, Italy</i> ; [2] <i>Dipt. di Chimica e Tecnologia del Farmaco, Università "La Sapienza", Roma, Italy</i>
Part 2: In homage to Darwin's theory of evolution: Fossils and biological evolution	
Co-chair: J. Parnell	
Co-chair: P. Claeys	
No.	
P2.1	Micro-RAMAN characterization of precambrian permineralized cells, Draken Formation: preliminary results F. Foucher [1], B. Cavalazzi [1,2], F. Westall [1] [1] <i>Centre de Biophysique Moléculaire, CNRS-University of Orléans-OSUC, Orléans, France</i> ; [2] <i>The Studium, Orléans, France</i>
P2.2	Searching for traces of life in ancient stromatolites down to the nanoscale K. Lepot [1], P. Philippot [2], K. Benzerara [2], E. Javaux [1] [1] <i>Département de Géologie, UR Paléobotanique, Paléopalynologie et Micropaléontologie, Université</i>

Formatted: Not Highlight

	<i>de Liège, Belgium ; [2] Laboratoire Géobiosphère Actuelle et Primitive, Institut de Physique du Globe de Paris - Institut de Minéralogie et de Physique des Milieux Condensés, CNRS, Universités Paris 6 and 7, Paris, France</i>
P2.3	Preservation of fossil microorganisms in an impact-generated hydrothermal system? Lindgren [1], M. Ivarsson [1], A. Neubeck [1], C. Broman [1], N. Holm [1] <i>[1] Department of Geology and Geochemistry, Stockholm University, Stockholm, Sweden</i>
P2.4	Fossil microorganisms and formation of Early Precambrian weathering profiles M. Astafieva[1], A. Rozanov[1], N. Alfimova[2], V. Matrenichev[2], A. Vrevsky[2] <i>[1] Paleontological Institute of Russian Academy of Sciences, Moscow, Russia; [2] Institute of Precambrian Geology and Geochronology, Russian Academy of Sciences, Saint Petersburg, Russia</i>
P2.5	Organic-walled microfossils from the Vindhyan Supergroup, India: a group that opens a new window into the early biosphere [1] P. Srivastava <i>[1] Centre of Advanced Study in Geology, Lucknow University, Lucknow, India</i>
P2.6	Sensitivity of Organisms to Climate Change on Milankovitch Timescales D. Waltham [1] <i>[1] Department of Earth Sciences, Royal Holloway, University of London, UK.</i>
P2.7	Protein-mediated selective enclosure of early replicators inside of membranous vesicles: first step towards cell membranes K. Lehto [1] <i>[1] Laboratory of Plant Physiology and Molecular Biology, University of Turku, Turku, Finland</i>
P2.8	Influence of extreme solar events on Earth's atmosphere and ionosphere as a proxy for the young Sun epoch M.Y. Boudjada [1], *H. Lammer [1], H. Biernat [1, 2], J.J. Berthelier [3], P.M. Galopeau [3], Yu. N. Kulikov [4], N. Mebarki [5], K. Schwingenschuh [1], W. Hausleitner [1], W. Voller [1] <i>[1] Space Research Institute, Austrian Academy of Sciences, Graz, Austria; [2] Department of Geophysics, Astrophysics and Meteorology, KF University, Graz, Austria; [3] Polar Geophysical Institute, Russian Academy of Sciences, Murmansk, Russian Federation; [4] Laboratoire Atmosphères, Milieux, Observations Spatiales, CNRS, IPSL, Vélizy, France ; [5] Laboratoires of the Physics Mathematic and Subatomic, Mentouri University, Constantine, Algeria</i>
P2.9	A critical assessment of astronomical causes for terrestrial mass extinctions C.A.L. Bailer-Jones [1] <i>[1] Max Planck Institute for Astronomy, Heidelberg, Germany</i>
Part 3: Life in extreme environments	
Co-chair: D. Prieur	
Co-chair: R. Amils	
No.	
P3.1	Cyanobacterial diversity in Antarctic lakes assessed by Denaturing Gradient Gel Electrophoresis (DGGE) P. De Carvalho Maalouf [1], A. Lambion [1], F. Zakhia [1], R. Fernandez-Carazo [1], A. De Wever [2], E. Verleyen [2], A. Wilmotte [1] <i>[1] Centre for Protein Engineering, B6, Université de Liège, 4000 Liège, Belgium; [2] Department of Biology, Research group of Protistology and Aquatic Ecology, Gent University, Gent, Belgium.</i>
P3.2	Sør Rondane Mountains as a possible refuge for cyanobacterial community of Antarctica Z. Namsaraev[1,2], *M.J. Mano[1], R. Fernandez [1], P. Simon [1], A. Wilmotte[1] <i>[1] Centre for Protein Engineering, University of Liege, 4000, Liege, Belgium; [2] Winogradsky Institute of Microbiology RAS, 117312, Moscow, Russia</i>
P3.3	Life in cold environments: model of possible extraterrestrial life. F. Piette[1], P. Leprince[2], G. Feller[1] <i>[1]Laboratory of Biochemistry, CIP, Univesity of Liège, Liège, Belgium; [2]GIGA-Neuroscience, University of Liège, Liège, Belgium</i>
P3.4	Purification and characterization of psychrophilic and thermophilic Trigger Factors: Models of extremophilic proteins C. Struvay, F. Piette, S. Negro, G. Feller [1] <i>[1] Laboratory of biochemistry, CIP, Institute of Chemistry B6a, University of Liège, B-4000 Liège, Belgium</i>
P3.5	Aspicilia fruticulosa: One of the most resistant organisms to outer space conditions and Mars simulated environment FJ Sánchez [1], R. De la Torre [2], G. L. Sancho [3], E. Mateo-Martí [4], J. Martínez-Frías [5], G. Horneck [6] <i>[1,2] Earth Observation Department, INTA. Madrid, Spain; [3] Departamento de Biología Vegetal II, Facultad de Farmacia, Universidad Complutense, Madrid, Spain; [4,5] Centro de Astrobiología, INTA-</i>

	<i>CSIC, Madrid, Spain; [6] DLR, Institute of Aerospace Medicine, Radiation biology, Köln, Germany</i>
P3.6	<p>Capture and space exposure experiments of microorganisms on the ISS orbit proposed in “TANPOPO” mission</p> <p>S. Yokobori [1], Y. Yang [1], K. Fujisaki [2], Y. Kawaguchi [1], T. Sugino [1], H. Hashimoto [3], K. Okudaira [4], M. Tabata [3], H. Kawai [5], Y. Yoshimura [6], T. Tsuji [6], I. Narumi [7], N. Hayashi [8], H. Yano [3], M. Yamashita [3], K. Kobayashi [2], A. Yamagishi [1], TANPOPO WG</p> <p>[1] School of Life Sciences, Tokyo University of Pharmacy and Life Science; [2] Graduate School of Engineering, Yokohama National University; [3] Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency [4] The University of Aizu [5] Faculty of Science, Chiba University; [6] Faculty of Agriculture, Tamagawa University; [7] Quantum Beam Science Directorate, Japan Atomic Energy Agency; [8] Graduate School of Biosciences and Biotechnology, Tokyo Institute of Technology</p>
P3.7	<p>HALOSPACE: responses of <i>Halococcus dombrowskii</i> strain H4 to space conditions</p> <p>Grösbacher M., Legat A., Holzinger A., Stan-Lotter H. [1]</p> <p>[1] University of Salzburg, Division of Molecular Biology, Department of Microbiology, Billrothstr. 11, A-5020 Salzburg, Austria</p>
P3.8	<p>Successful adaptation of <i>Bacillus subtilis</i> cells to extreme UV stress lead also to an increased desiccation resistance</p> <p>M. Wassmann, R. Moeller, G. Reitz, P. Rettberg [1]</p> <p>[1] German Aerospace Center (DLR), Institute of Aerospace Medicine, Radiation Biology Department, Research Group Photo and Exobiology, Cologne, Germany</p>
P3.9	<p>The “micronaut” <i>Bacillus subtilis</i>: Stress-protection by compatible solutes against high salinity and growth limiting temperatures</p> <p>T. Hoffmann [1] and E. Bremer [1]</p> <p>[1] Philipps-University Marburg, Department of Biology, Laboratory for Microbiology, Marburg, Germany</p>
P3.10	<p>Isolation of radiation-resistant extremophile microorganisms from extreme terrestrial environments</p> <p>I.G. Paulino-Lima [1,4], G.Duarte [1], G. Z. L.[Dalmaso 1], L. Teixeira [2], A.S. Rosado [2], A. Azua-Bustos [3], A. C. Leitão [1], N. Mason [4], C. Lage [1,4]</p> <p>[1] Instituto de Biofísica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro; [2] Planetary and Space Science Research Institute, The Open University; [3] Departamento de Genética Molecular y Microbiología, Pontificia Universidad Católica de Chile; [4] Department of Physics and Astronomy, The Open University</p>
P3.11	<p>Extremophiles populating hematite sand: a model for extraterrestrial investigations?</p> <p>A. Perfumo [1]</p> <p>[1] School of Biomedical Sciences, University of Ulster, U.K</p>
P3.12	<p>Mars-relevant microorganisms in simulated subsurface environments under hydration/dehydration conditions</p> <p>A. Bauermeister [1], F. Leon [2], P. Rettberg [1], G. Reitz [1], W. Sand [2], H.-C. Flemming [2]</p> <p>[1] DLR Cologne, German Aerospace Center, Cologne, Germany; [2] University of Duisburg-Essen, Biofilm Centre, Duisburg, Germany</p>
P3.13	<p>Microscopic Studies of Biofilms from an Alpine Subsurface Spring - Searching for Marker Structures in an Extreme Environment</p> <p>M. Dornmayr-Pfaffenhuemer [1] and H. Stan-Lotter [1]</p> <p>[1] University of Salzburg, Department of Molecular Biology, Division of Microbiology, Salzburg, Austria</p>
P3.14	<p>Anaerobic Microbial Communities: Extraterrestrial Putative Ecosystems and Terrestrial Analogues</p> <p>Kotsyurbenko</p>
P3.15	<p>Modern extreme environments: The key to study the evolution of life?</p> <p>S. Leuko [1], B. A. Neilan [2], L. J. Rothschild [1]</p> <p>[1] NASA Ames Research Centre, Moffett Field, USA; [2] Australian Centre for Astrobiology, Sydney, Australia</p>
P3.16	<p>Life deep in the Earth’s crust</p> <p>Itävaara M.[1]</p> <p>[1] VTT (Technical research centre of Finland), VTT, Finland</p>
P3.17	<p>The microbiology of Tardigrades and speculations about its potential role for astrobiological research</p> <p>N. M. Lee[1], I. Jönsson[2], O. Braissant [3], M. Schrällhammer[4], G. Petroni[4], M. Schmid[5], P. Rettberg[6], G. Horneck[6]</p> <p>[1] Microbiology, Techn. Univ. München, Freising, Germany; [2] Aquatic Biology & Chemistry Group, Kristianstad University, Kristianstad, Sweden; [3] Lab. for Biomechanic and Biocalorimetry (UniBas), Basel, Switzerland; [4] Zoology, University of Pisa, Italy; [5] Max Planck Institute for developmental biology, Tübingen, Germany; [6] DLR, Köln, Germany</p>
P3.18	<p>Life on Io?</p> <p>G. Bianciardi [1,2], L. Borruso [2], S.Pluchino [3]</p>

	[1] Dipartimento di Patologia Umana e Oncologia, Università di Siena, Siena, Italia; [2] Centro Studi di Esobiologia, Milano, Italia ; [3] INAF-IRA Radiotelescopi, Medicina (BO), Italia
P3.19	Geomicrobiology for Space Settlement and Exploration (GESSE) An ESA Topical Team Cockell C. Open University, Milton Keys, UK
P3.20	Use of Cyanobacteria for In-Situ Resource Use in Planetary Exploration Olsson-Francis
P3.21	The dormancy trigger as the adaptive mechanism for survival of harmful conditions O. Komarek [1] [1] Institute of System Biology and Ecology
P3.22	Viruses in hydrothermal deep-sea ecosystems A.Gorlas, Y.Colin, P.Vannier, N.Bienvenu, D.Prieur and C.Geslin [1] [1] Laboratory of Microbiology of Extreme Environments, CNRS, IFREMER and Université de Bretagne Occidentale, 29280 Plouzané, France
P3.23	Assessment of UV radiation DNA damage detected by PCR assay in extreme-tolerant cryptoendolithic Antarctic fungi S. Onofri, L. Selbmann, D. Isola, G. Scalzi, L. Zucconi [1] [1] DECOS, Università degli Studi della Tuscia, Viterbo, Italy
Part 4: Astrobiology of planets and small bodies, planetary protection	
Co-chair: B. Hofmann	
Co-chair: V. Dehant	
No.	
P4.1	Life on Mars: methods for the extraction and detection of biomarkers M. S. Direito [1], P. Ehrenfreund [2], W. F.M. Röling [1] [1] Institute for Molecular Cell Biology, Faculty of Earth and Life Sciences, Vrije University Amsterdam, Amsterdam, The Netherlands; [2] Astrobiology Laboratory/Leiden Institute of Chemistry, Leiden, The Netherlands
P4.2	Study for Germination under Oxygen Partial Pressure of 1kPa H. Hashimoto [1] [1] Institute of Space and Astronautical Sciences, Japan Aerospace Exploration Agency, Sagami-hara, Japan
P4.3	Airborne dust and water vapour at visible wavelengths in the Martian atmosphere J.P. Mason, M.R. Patel, S.R. Lewis
P4.4	Effects of asteroid and comet impacts on the atmospheric evolution of Earth, Mars and Venus L.B.S. Pham [1], Ö. Karatekin [1], and V. Dehant [1] [1] Royal Observatory of Belgium, Brussels, Belgium
P4.5	Raman spectroscopy in planetary exploration: the Raman spectrometer for Exomars F. Rull [1], and the Raman team [1] Unidad Asociada UVA-CSIC al Centro de Astrobiología, Edificio INDITI, Boecillo (Valladolid), Spain
P4.6	Detection of biomarkers with Raman spectroscopy as a model for the detection of possible remnant micro-organisms in extraterrestrial and planetary samples S. Fendrihan [1,3], H. Stan-Lotter [1], M. Musso [2] [1] University of Salzburg, Division of Molecular Biology, Department of Microbiology, Salzburg, Austria; [2] Department of Materials Engineering and Physics, Division of Physics and Biophysics, University of Salzburg, Salzburg, Austria; [3] Romanian Bioresource Centre and Advanced Research Association, Bucharest, Romania
P4.7	ILMA : Ion Laser Mass Analyser. In-Situ Characterization of a Near Earth Object (NEO) for the MARCO POLO mission H. Cottin [1], C. Briois [2], C. Engrand [3], N. Grand [1], L. Thirkell [2], R. Thissen [4], P. Puget [5], J.J. Berthelier [6], N. Carasco [6], C. Szopa [6], R. Kallenbach [7], H. Krüger [7], M. Hilchenbach [7], A. Makarov [8] [1] LISA, Laboratoire Interuniversitaire des Systèmes Atmosphériques, Universités Paris 12, Paris 7, UMR 7583 CNRS, Créteil ; [2] Laboratoire de Physique et Chimie de l'Environnement et de l'Espace (LPC2E) - UMR-CNRS 6115 Orléans, France ; [3] Centre de Spectrométrie Nucléaire et de Spectrométrie de Masse (CSNSM), ORSAY Campus, France ; [4] Laboratoire de Planétologie de Grenoble, UMR 5109 CNRS - UJF, Grenoble, France ; [5] Laboratoire d'Astrophysique de Grenoble, CNRS, Université Joseph Fourier, UMR 5571, Grenoble, France ; [6] Laboratoire Atmosphères, Milieux, Observations Spatiales (LATMOS), CNRS, UVSQ, UPMC, Verrières le Buisson, France ; [7] Max-Planck-Institut für Sonnensystemforschung, Katlenburg-Lindau, Germany ; [8] Thermo Fisher Scientific, Bremen, Germany

Deleted: S. Ramirez

Deleted: Co-chair: V. Dehant (... [1])

P4.8	On the Possibility of a Nitrogen Cycle in the Subsurface Regions of Enceladus J. J. Leitner [1], R.-S. Taubner [1], M. G. Firneis [1] [1] Institute for Astronomy, University of Vienna, Austria
P4.9	Using antibodies for the search for terrestrial and extraterrestrial life Weigl A. [1], Gruber C. [1], Blanco-López Y. [2], Rivas L.A. [2], Parro V. [2], Stan-Lotter H. [1] [1] University of Salzburg, Division of Molecular Biology, Department of Microbiology, Salzburg, Austria; [2] Centro de Astrobiología (INTA-CSCI), Madrid, Spain
P4.10	Signatures for Ancient Deep Biosphere on Earth and Mars J. Parnell [1], A. Boyce [2] [1] University of Aberdeen, Aberdeen, U.K.; [2] Scottish Universities Environmental Research Centre, East Kilbride, U.K.
P4.11	Interaction of Perchlorates and Organic Matter in the Martian Subsurface Layer: Laboratory Modeling A. K. Pavlov [1], V. N. Shelegedin [2], M. A. Vdovina [1] [1] Laboratory of Mass Spectrometry, Ioffe Physico-Technical Institute of Russian Academy of Sciences, St. Petersburg, Russia; [2] Department of Biophysics, St. Petersburg Polytechnical State University, St. Petersburg, Russia
P4.12	Do perchlorates have a role for Martian life? J. M. Houtkooper [1], D. Schulze-Makuch [2] [1] Center for Psychobiology and Behavioral Medicine, Justus-Liebig-University of Giessen, Germany; [2] School of Earth and Environmental Sciences, Washington State University, USA
P4.13	The spectroscopic search for the signatures of life in the planetary atmospheres: numerical simulations and laboratory measurements M. I. Blecka [1], M. Rataj [1], M. Mularczyk Oliwa [2] [1] Space Research Centre of Polish Academy of Sciences; Warsaw Poland; [2] Military University of Technology; Warsaw Poland
P4.14	Microbial analysis of the Herschel mission and the impact on Planetary Protection Moissl-Eichinger
P4.15	Detection, Sampling and Analysis of Spores on Rough Surfaces in Terms of Planetary Protection A. Probst [1], R. Wirth [1], M. Wolf [2], C. Moissl-Eichinger [1] [1] Department for Microbiology and Archaea Centre, University of Regensburg, Germany; [2] ExoMars Landing Platform, Dept: Exploration and Landing Systems, Astrium Space Transportation, Bremen, Germany
P4.16	The Effect of Spacecraft Descent Engine Plumes on Organic Contaminant Transfer to Planetary Surfaces: Phoenix as a Test Case Mancinelli
P4.17	Geoethics and Geodiversity in Space Exploration: Implications in Planetary Geology and Astrobiology Martinez-Frias
P4.18	Comparison of the Milliflex RMDS method with conventional cultivation assays for bioburden determination on spacecraft and in cleanrooms P. Rettberg [1] [1] DLR, Institute of Aerospace Medicine, Radiation Biology Department, Research Group Astrobiology
P4.19	Protecting the Environment of Celestial Bodies (PECB), Study Group 5.6 of IAA Commission V M. Hofmann [1] [1] University Giessen/ University Prague
P4.20	Studying the Mars atmosphere using a SOIR Instrument R. Drummond [1] [1] BIRA, Brussels, Belgium
Part 5: Astrobiology aspects in astrophysics and astrochemistry, education and networking	
Co-chair: F. Ferrari	
Co-chair: L. Colangeli	
No.	
P5.1	The search for extraterrestrial water Cristiano Cosmovici [1], Sergei Pogrebenko [2], S. Pluchino, S. Montebugnoli, M. Bartolini [3], Francesco Schillirò [4], Enrico Flamini [5] [1] IFSI-INAF, Roma, Italy; [2] JIVE, The Netherlands; [3] IRA-INAF, Bologna, Italy; [4] IRA-INAF, Noto, Italy; [5] ASI, Roma, Italy
P5.2	Application of Bayesian statistics to exoplanetary data

	Kotiranta J.S
P5.3	Chemical processes of electrons with biomolecules inside cold helium droplets Stephan Denifl [1], Filipe Ferreira da Silva [1], Tilmann D. Märk [1], and Paul Scheier [1] [1] <i>Institut für Ionenphysik und Angewandte Physik, Universität Innsbruck, Innsbruck, Austria</i>
P5.4	Planning of the Forthcoming Astrobiology Missions: Stability of Bioorganic Molecules During the Exposure in Open Space: Short- and Long-term Space Missions Results E. Kuzicheva[1], N. Gontareva[1] [1] <i>Institute of Cytology, Laboratory of Exobiology, St Petersburg, Russia</i>
P5.5	The Results of a Recent Survey on Research and Teaching in Astrobiology in the UK M. J. Burchell [1], L. R. Dartnell [2] [1] <i>Centre for Astrophysics and Planetary Sciences, School of Physical Sciences, Ingram Building, University of Kent, Canterbury, Kent CT2 7NH, United Kingdom</i> ; [2] <i>CoMPLEX (Centre for Mathematics & Physics in the Life Sciences and Experimental Biology), University College London, Gower Street, London WC1E 6BT, UK</i>
P5.6	Astrobiology Network in Japan M. Ohishi [1] [1] <i>National Astronomical Observatory of Japan</i>
P5.7	Extrasolar planets in the Gliese 581 system - model atmospheres and implications for habitability P. von Paris, M. Godolt, J.L. Grenfell, P. Hedelt, B. Patzer, H. Rauer, B. Stracke [1] [1] <i>Zentrum für Astronomie und Astrophysik, Technische Universität Berlin</i>
P5.8	The Inner Boundary of the Habitable Zone for Earth-like Planets B. Stracke, J.L. Grenfell, P. von Paris, B. Patzer, H. Rauer [1] [1] <i>Zentrum für Astronomie und Astrophysik, Technische Universität B</i>
P5.9	Influence of the spectral stellar flux distribution on atmospheric dynamics of extrasolar Earth-like planets M. Godolt, J.L. Grenfell, A. Hamann-Reinus, M. Kunze, U. Langematz, H. Rauer [1] [1] <i>Zentrum für Astronomie und Astrophysik, Technische Universität B</i>
P5.10	Influence of clouds on the emission spectra of Earth-like extrasolar planets D. Kitzmann, A.B.C. Patzer, P. v. Paris, M. Godolt, J.L. Grenfell, H. Rauer [1] [1] <i>Zentrum für Astronomie und Astrophysik, Technische Universität B</i>
Part 6: Human exploratory missions	
Co-chair: C. Moissl-Eichinger	
Co-chair: E. Unruh	
P6.1	HAMLET - Human Model MATROSHKA for Radiation Exposure Determination of Astronauts G. Reitz [1], T. Berger [1] [1] <i>German Aerospace Center (DLR), Institute of Aerospace Medicine, Radiation Biology, Cologne, Germany</i>
P6.2	Radiation and low gravity effects on neuronal cell cultures G. Pani[1,2], N. Samari[1], L. de Saint-Georges[1], M.A. Meloni[3], S. Baatout[1], P. Van Oostveldt[2], M.A. Benotmane[1] [1] <i>Radiobiology Unit, Molecular and Cellular Biology expert group, Belgian Nuclear Research Centre, SCK•CEN, Mol, Belgium</i> ; [2] <i>Laboratory for Biochemistry and Molecular Cytology, Ghent University, Gent, Belgium</i> ; [3] <i>Dipartimento di Scienze Fisiologiche, Biochimiche e Cellulari, Università di Sassari, Italy</i>
P6.3	Human monocyte microtubular recovery in simulated low gravity after nocodazole exposure G. Pani[1,3], M. A. Meloni[1], S. Baatout[3], A. Saba[1], G. Galleri[1], P. Pippia[1], A. Cogoli[2], M. Cogoli-Greuter[2] [1] <i>Dipartimento di Scienze Fisiologiche, Biochimiche e Cellulari, University of Sassari, Italy</i> [2] <i>Zero-g LifeTec GmbH, Zurich, Switzerland</i> ; [3] <i>Radiobiology Unit, Molecular and Cellular Biology expert group, Belgian Nuclear Research Centre, SCK•CEN, Mol, Belgium</i>
P6.4	The complete genome sequence of the alkaliphilic nonheterocystous cyanobacterium <i>Arthrospira (Spirulina) platensis</i> PCC8005 P. J. Janssen, N. Morin, P. Monsieurs, N. Leys [1] [1] <i>Unit of Microbiology, Institute for Environment, Health and Safety - Belgian Nuclear Research Centre SCK•CEN, MOL, Belgium</i>
P6.5	A new software tool to investigate fungal growth and perform statistics E. Chatzitheodoridis [1], I. Gomoiu [2] [1] <i>National Technical University of Athens, School of Mining and Metallurgical Engineering, Department of Geological Sciences, Zografou, Athens, Greece</i> ; [2] <i>Microbiology Center, Institute of Biology Bucharest, Romanian Academy of Science, Bucharest, Romania</i>

Formatted: English (U.K.)

P6.6	Microbiological issues related to space materials and implications for human life support on space F. Canganella, G. Bianconi, E. di Mattia [1] <i>[1] Dept. of Agrobiolology and Agrochemistry, and Group of Research in ExoAgrobiolology (GREAB), University of Tuscia, Viterbo, Italy</i>
P6.7	ULISSE : a knowledge management project for life and physical sciences from the International Space Station C. Muller, D. Moreau [1] <i>[1] B.USOC, Brussels, Belgium</i>

Co-chair: V. Dehant