

	ROOM 1	ROOM 2	ROOM 3
	REBUS 1/2	Algae & Photobioreactor 1/2	Societal Impact 1/2
	Chair: Marta Del Bianco (ASI) Co-chair: Stefania De Pasquale (UNINA) <i>20 minutes</i>	Chair: Jeremy Pruvost (GEPEA) Co-chair: Ellen Harrison (U Cambridge) <i>20 minutes</i>	Chair: Christian TAMPONNET (ISPN) Co-chair: <i>20 minutes</i>
8:00		The assessment of microalgae biochemistry through NMR non-invasive approach offers new perspectives for their monitoring in photobioreactors. Gonçalves Olivier – GEPEA	
8:20		Extracellular conversion of CO2 into sugars and other functional food ingredients: SweetAir. Julian BOBESCU – U WAGENINGEN	
8:40	The REBUS project in the context of the Italian Life Science Roadmap for human space exploration. Marta del Bianco – ASI	Assessing the efficiency of cyanobacterium-based BLSS on Mars. Cyprien VERSEUX – ZARM	
9:00	Simulated microgravity affects pollen tube development: a crucial stage in the seed-to-seed cycle of space candidate crops. Maurizio LOVANE – UNINA	Optimizing phosphorus removal for municipal wastewater post-treatment with <i>Chlorella vulgaris</i> . Aigars LAVRINOVIS – RTU	History of CELSS in Europe. Christophe LASSEUR – ESA
9:20	The Potential of Lunar and Martian regolith simulants as plant growth media. Paola ADAMO – UNINA	ALGOLIGHT to produce high value products in a compact controlled and intensified photobioreactor adaptable to the life support for human space exploration. Charlene THOBIE – ALGOLIGHT.	The MELISSA foundation and the selection of young scientists involved in research on life support in space: eight years of experience in the POMP project. Max MERGEAY – MELISSA Foundation
9:40	The REBUS fungal collection for the space organic waste exploitation. Solveig TOSI – U PAVIA	Development of innovative processes for the industrial cultivation of high added-value plants in a vertical farming pilot system. Nico BETTERLE – U VERONA	

10:00 COFFEE BREAK

	ROOM 1	ROOM 2	ROOM 3
	REBUS 2/2	Algae & Photobioreactor 2/2	Terrestrial Applications 1/2
	Chair: Marta Del Bianco (ASI) Co-chair: Stefania De Pasquale (UNINA) <i>20 minutes</i>	Chair: Pascal Jaouen (Pol Mer atlantique) Co-chair: Theodore Besson (ESTEE) <i>20 minutes</i>	Chair: Aude de Clercq (ESA) Co-chair: Rob Suters (SEMILLA) <i>20 minutes</i>
10:20	Space organic waste degradation: a new approach to microgreens cultivation. Silvia TABACCHIONI – ENEA	Implementation of an automated process for a continuous <i>Limnospira</i> harvesting and the recycling of the culture medium for space applications. Celine COENE – QINETIQ	URIDIS, electricity-driven water technology for safe and sustainable toilets without chemical additives. Korneel Rabaey – U Ghent
10:40	Entomological degradation in bio-regenerative systems for space: Study on the efficacy of <i>Hermetia illucens</i> -mediated bioconversion. Maurizio CALVITTI – ENEA	The impact of light, temperature and low-dose irradiation on the growth and composition of <i>Limnospira indica</i> , a component of the MELISSA life support system for space exploration. Jana FAHRION – SCK	BBS – Breathing Buildings for Sustainability. Claudio LEDDA – LIVEGREEN Srl
11:00	Chicory (<i>Cichorium intybus</i> L) for space-oriented production of prebiotic rich plant under controlled conditions for astronaut wellbeing. Alberto BATTISTELLI – CNR-IRET	Modeling and experimental campaign of a novel, compact, thin-tube photobioreactor for high volumetric productivity. Jack HOENIGES – GEPEA	The greater Caux Seine Area : the land of energy transition & circular economy. Pierre Van CAENEGHEM – CAUX SEINE
11:20	Chicory roots as antidote to spaceflight-induced chronic stress: a translational study in the framework of the ReBUS project. Francesca ZORATTO – ISS	Duckweed Production for Space Life Support. Christine ESCOBAR – SL TECHNOLOGIES	Microalgae-based biofacade to develop sustainable buildings: system modeling with Modelica. Flora GIRARD – GEPEA
11:40	Morpho-physiological and nutritional responses of Brassica microgreens to heavy ions: an outlook on ionizing radiation from the REBUS project. Veronica De MICCO UNINA	Algal dormancy and revivability in space. Yash PARDASANI – SAMS UHT	Integrated Water Cycle Demonstration Pilot Project Using MELISSA Space Technology. Ernesto LOPEZ BAEZA – U VALENCIA
12:00	ReBUS-Cyanobacteria: The use of the desiccation-, radiation-tolerant cyanobacterium <i>Chroococcidiopsis</i> sp. CCME029 for in situ resource utilization on the Moon and Mars. Daniella BILLI – U ROME	Arthrospira – Biomass Recovery. Rastilav KRAMP – Bio X	The NEWgenerator Resource Recovery Machine for off-grid wastewater treatment: Case studies for global sanitation in India and South Africa, and implications for space colonies. Yeh DANIEL – U FLORIDA

12:20 LUNCH

	ROOM 1	ROOM 2	ROOM 3
	BioMaterial 2/2	Urine 3/3	Terrestrial 2/2
	Chair: Adevnit Makaya (ESA) Co-chair: Sandra Ortega (ESA) <i>20 minutes</i>	Chair: Baptiste Leroy (U Mons) Co-chair: Aurea Heusser (EAWAG) <i>20 minutes</i>	Chair: Stephan Speidel (ESA) Co-chair: Pierre Van Caenegem (CAUX SEINE) <i>20 minutes</i>
13:30	Assessing the Recycling Potential of <i>Cupriavidus necator</i> for Space Travel: Production of SCPs and PHAs from Organic Waste. Pierre JORIS – TBI	Nitrogen gas production and extraction from urine to compensate for gas leakage during long-term Space missions: Proof of concept for an energy-efficient microgravity-compatible bioreactor. Marijn TIMMER – U ANVERS	PhotoBioreactor Space R&D at MEG Science. Mattia TOLFANETTI –
13:50	3D printing in low-gravity (3DmedLowG project): Challenges in development of hardware and food compatible printing ink. Rock CAPUDER – ZAVOD 404	Nitrogen gas and water recovery using the Nitrogenisor bioreactor for crewed Mars mission: A feasibility study based on stochastic mission scenarios. Tim Van WICKEL – U ANVERS	Commercialisation opportunities of 30 years of Melissa's research. Aude De CLERCQ – ESA
14:10	Kombucha-derived biomaterials for life in space. Agata KOBODZIEJCZYK – AGH UST	Fresh urine treatment with bio-mineral phosphorus recovery and nitrification with biocatalysts. Ana SOARES – U CRANFIELD	Opportunities for MELISSA-derived downstream services within ESA's Space Solutions. Arnaud RUNGE – ESA
14:30		Hydrolysis and nitrification of synthetic urine in continuous packed-bed bench-scale bioreactors. Carolina ARNAU – UAB	Advancing Opportunities for Ag-Tech in the Space Environment: Mutation Breeding Programs, Closed-Loop Developments, and Exploring Future Opportunities. Connor KISELCHUK – StarLab Oasis

14:50 COFFEE BREAK

15:20	Pr LIU Hong – Lunar Palace
15:40	PANELS. ECLSS demonstrator before the departure to Mars.
16:20	Conclusion (20 min)