

Seasonal School

BEEP - Biology for human space exploration

October 10th-14th, 2022

	MONDAY OCTOBER 10	TUESDAY, OCT 11	WEDNESDAY, OCT 12	THURSDAY OCT 13	FRIDAY OCT 14
9.30	HUMAN SPACE FLIGHT. INTRODUCTORY LECTURE. GABRIELE MASCETTI, HUMAN SPACE FLIGHT OFFICE ASI, HEAD	HYBERNATION MATTEO CERRI ONLINE	MOON HABITATS FOR HUMANS VALENTINA COLLA		BED REST ENRICO CAIANI
10.30	HUMAN SPACE FLIGHT. INTRODUCTORY LECTURE. GABRIELE MASCETTI, HUMAN SPACE FLIGHT OFFICE ASI, HEAD	HYBERNATION MATTEO CERRI ONLINE	MOON HABITATS FOR HUMANS VALENTINA COLLA	PLEASE NOTE: 10.00 CIRCADIAN RYTHMS BENEDETTO GRIMALDI	BED REST ENRICO CAIANI
12.00				CIRCADIAN RYTHMS BENEDETTO GRIMALDI	
12.30	GRAVITATIONAL BIOLOGY DEBORA ANGELONI	MICROGRAVITY V/S HYPERGRAVITY, VALERIO MIGNUCCI	OMICS FOR SPACE RESEARCH IVANA BARRAVECCHIA	EXTREMOPHYLES FOR SPACE RESEARCH DONATO GIOVANNELLI ONLINE	EXAM
13.30	GRAVITATIONAL BIOLOGY DEBORA ANGELONI	MICROGRAVITY V/S HYPERGRAVITY, VALERIO MIGNUCCI	OMICS FOR SPACE RESEARCH IVANA BARRAVECCHIA	EXTREMOPHYLES FOR SPACE RESEARCH DONATO GIOVANNELLI ONLINE	EXAM
14.30					
16.00	CELL COLTURE IN SPACE IVANA BARRAVECCHIA	GENOMICS ON EARTH AND IN SPACE MATTEO DELL'ACQUA	ELEMENTS OF MOLECULAR MECHANOBIOLOGY DEBORA ANGELONI	EARTHWORMS AS POTENTIAL BIOTOOLS SUPPORTING LUNAR REGOLITH HABITABILITY FOR FUTURE CROP GROWTH IN SPACE CHIARA PUCCIARIELLO & DONATO ROMANO	HARDWARE FOR BIOLOGY SPACE RESEARCH. KAYSER ITALIA

17	MORPHOLOGICAL ANALYSIS AND MICROSCOPY IVANA BARRAVECCHIA	SPACE FOR CANCER RESEARCH DEBORA ANGELONI	ELEMENTS OF MOLECULAR MECHANOBIOLOGY DEBORA ANGELONI	EARTHWORMS AS POTENTIAL BIOTOOLS SUPPORTING LUNAR REGOLITH HABITABILITY FOR FUTURE CROP GROWTH IN SPACE CHIARA PUCCIARIELLO & DONATO ROMANO	HARDWARE FOR BIOLOGY SPACE RESEARCH. KAYSER ITALIA
18.00	MORPHOLOGICAL ANALYSIS AND MICROSCOPY IVANA BARRAVECCHIA		PHYSIOLOGY OF EXTREME ENVIRONMENTS ALBERTO GIANNONI		SITE VISIT TO KAYSER ITALIA, LIVORNO
19.00	HAPPY HOUR		PHYSIOLOGY OF EXTREME ENVIRONMENTS ALBERTO GIANNONI		SITE VISIT TO KAYSER ITALIA, LIVORNO

Ing. Gabriele Mascetti
Head of Human Spaceflight Office
Head of Scientific Coordination Unit
Italian Space Agency
Title: Human spaceflight: key challenges for the future of human exploration

Ivana Barravecchia, PhD
Scuola Superiore Sant'Anna
Titolo: Experimental biology for space research.

Prof. Matteo Cerri MD, PhD
Associate Professor of Physiology
University of Bologna
Italian Institute of Technology (IIT)
National Institute for Nuclear Physics (INFN)
Titolo: Hibernation, torpor and synthetic torpor: exploiting hypometabolism for space exploration

Donato Giovannelli, PhD
Full Professor of Microbiology
Department of Biology
University of Naples "Federico II"
Titolo: Microbes from extreme environments to study space

Prof. Enrico G Caiani, PhD, FESC
Associate Professor in Biomedical Image Processing and e-Health
Politecnico di Milano, Dipartimento di Elettronica, Informazione e Bioingegneria
Istituto di Elettronica e Ingegneria dell'Informazione e delle Telecomunicazioni (IEIIT-CNR)
Titolo: From Earth to Space: biomedical cardiovascular research through space analogues

Benedetto Grimaldi, PhD
Fondazione Istituto Italiano di Tecnologia
Department of Molecular Medicine

Titolo: Circadian rhythms in space.
Data: martedì 11 ottobre

Alberto Giannoni, MD, PhD
Scuola Superiore Sant'Anna
Title: Physiology of extreme environments

Prof. Chiara Pucciariello, PhD & Donato Romano, PhD
Scuola Superiore Sant'Anna
Title: Fertilization of extraterrestrial soils

Prof. Matteo Dell'Acqua, PhD
Scuola Superiore Sant'Anna
Title: Genomics on earth and in space

Dr. Valerio Mignucci
Scuola Superiore Sant'Anna
Title: Microgravity V/S Hypergravity in Biological Research

Prof. Ing. Valentina Colla, PhD
Scuola Superiore Sant'Anna
Title: Moon colonization by humans: challenges and perspectives of 3D construction.