



Organized by:



CONFERENCE ON BIOMEDICAL ISSUES ON LONG LASTING MANNED MISSION

Pisa, December 8-9, 2009

President - A. L'Abbate Chairmen - R. Bedini, A. Benassi, A. Gemignani, A. Pingitore

DEC. 8th 2009 Aula 3 Scuola Superiore Sant'Anna, p.zza Martiri della Libertà 33, Pisa

16:00 17:00 **REGISTRATION** - Welcome cocktail

Introducer: A. L'Abbate

17:00 18:00 Welcome address by Institutional and Academic Authorities:

18:00 18:30 G. Bignami (University of Pavia, Italy) - Keynote Lecture: We are the Martian

18:30 19:00 I.B. Ushakov (Director of IBMP, Russia) - Keynote Lecture: Work physiology under extreme conditions

19:00 19:15 M. Zell (ESA) - Long lasting manned missions: the ESA point of view

21:00 **SOCIAL DINNER**

DEC. 9th 2009 Auditorium CNR Campus, via Moruzzi 1, Pisa

L. Serasini (IFC CNR) - "... all on Mars ..." Artistic Performance

Introducer: C. Montani (President of the CNR Research Campus)

09:00 09:30 J. Orasanau (NASA) - Keynote Lecture: Inhospitable World: Challenges to Crew Performance in Long-Duration Space Missions

SESSION 1: From parabolic flight to Long lasting mission organization

Chairmen: W. Pecorella, O. Salvetti, M. Zell

09:30 09:50 V. Cotronei (ASI, Italy) - The ASI Life Sciences program: an overview

09:50 10:10 E. Caiani (Politechnic of Milan, Italy) - Echography in parabolic flight

10:10 10:30 A. Donati, V. Zolesi (KAYSER Italia co.) - The Italian contribution to ISS utilization: Biology and Human Physiology payloads

10:30 10:50 T.N. Agapsteva and M.S. Belakovskiy (IBMP, Russia) - Organization of international projects: problems and solutions

10:50 11:10 E.P. Demin (IBMP, Russia) - Technical realization of MARS-500 experiment

11:10 11:20 DISCUSSION

11:20 11:40 **COFFEE BREAK**

SESSION 2: The impact of stress on well-being

Chairmen: D. De Rossi, M. Guazzelli, J. Orasanu

11:40 12:00 O.I. Shevchenko (IBMP, Russia) - Organization of psychological selection and psychological support of the MARS-500 experiment

12:00 12:20 A. Gemignani et al. (EXTREME, Italy) - Stress and sleep: the Mars 105 model

12:30 12:50 AE. Aubert (University Hospital of Leuven, Belgium) - The relationship between psychological characteristics and function of the cardiovascular system in a closed facility.

12:50 13:00 DISCUSSION

13:00 14:30 **LUNCH**

SESSION 3: The impact of stress on body

Chairmen: B. Ghelarducci, S. Ghione, I.B. Ushakov

14:30 14:50 G.Yu. Vasilyeva et al. (IBMP, Russia) - Complex assessment of the dynamics of liquid and body composition; neurohumoral, immunological, psychophysiological state of humans in 105-day isolation

14:50 15:10 F. Iellamo (Roma University, Italy) - Mechanisms of cardiovascular regulation in simulated and real microgravity conditions

15:10 15:30 A.V. Suvorov et al. (IBMP, Russia) - Specifics of breath and circulation under physical activity in 105-day isolation

15:30 15:50 E. Feichtinger (ESA) - ESA's Participation in the Mars-500 Isolation Study

15:50 16:10 A. Roda (Bologna University, Italy) - Development of non-invasive diagnostic tests for real-time monitoring of biomarkers of health status during Mars500

16:10 16:20 DISCUSSION

16:20 16:40 **COFFEE BREAK**

SESSION 4: Astronaut Point of view

Chairmen: T.N. Agapsteva, M. Leoncini, F. Ongaro

17:30 18:00 S. Ryazanskiy and C. Fournier (MARS 105 Astronauts) - From the real short-lasting human flight to MARS 105 experience

18:00 18:30 GENERAL CONCLUSIONS

18:30 18:45 **FAREWELL PARTY**

Under the auspices of:

