

# *ad hoc* Biomedical Committee Report

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NASA Headquarters  
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# Committee Members

- ◆ **Capt. Rick Hauck**
- ◆ **Steve Katz, MD, PhD**
- ◆ **David Longnecker, MD**

# Recent Activities

- ◆ **Update on OSEWG  
(Optimizing Science and Exploration Working Group)**
- ◆ **Update on Lunar Biomedical Research Recommendations  
(Oct 2007 NAC)**
- ◆ **Update on the NIH-NASA MOU initiative**

# OSEWG

- ◆ **Purpose is to integrate science initiatives with mission planning, to assure success of both**
- ◆ **Focuses on Science “Of the Moon; On the Moon, near the Moon and from the Moon”**
- ◆ **Includes reps. from the centers involved in science, including biomedical science, the Human Research Program and the Office of the Chief Health and Medical Officer**

# OSEWG Assessment of Principal Challenges

- ◆ **Biomedical/crew health challenges for the lunar sorties are real but are thought to be manageable.**
- ◆ **Challenges for lunar habitation are greater due to greater exposure to partial gravity, radiation, isolation, etc.**
- ◆ **Challenges for Mars are significantly greater than those for Lunar exploration, due to both duration and distance from Earth. Radiation hazards appear to be the greatest challenge for the human exploration of Mars.**

# Committee Observations

## OSEWG

- ◆ **The evaluation of challenges is consistent with NAC's recent radiation recommendation; the Biomedical Committee is continuing to explore opportunities to address unknowns in this area.**
- ◆ **The work of OSEWG is both necessary and appropriate, and the committee urges the group to continue its integration efforts.**
- ◆ **The committee will seek periodic updates from the OSEWG, as its activities are central to the research programs of both the SMD and HRP.**

# Update on Lunar Biomedical Research Recommendations

- ◆ **The Human Research Program (JSC) has several research activities that are consistent with the NAC recommendations for Lunar biomedical research (2007).**
- ◆ **Among these are the Digital Astronaut Model, the CEV occupant protection program for off-nominal landing, and further exploration of the personalized medicine paradigm.**

# Committee Observations: Lunar Biomedical Recommendations

- ◆ **The HRP continues to make progress on the research programs that are designed to support crew health and safety for return to the Moon.**
- ◆ **The HRP reports that the NAC recommendations serve as useful guideposts as they manage these programs.**
- ◆ **Continued discussions between the HRP and the committee have been fruitful and have identified progress in a transparent manner.**

# Update on NIH-NASA MOU

- ◆ **NIH Program Announcement made public recently, resulting in significant interest from the research community.**
- ◆ **A June 16, 2009, interactive session (phone-in and in-person) for scientists interested in applying for funding will explain how NIH and NASA are working together on this initiative. This session is meant to also help with the implementation of identified projects that will utilize the ISS as the research site.**
- ◆ **Funding of projects will commence in FY 2010.**
- ◆ **Earliest time for ISS-based utilization will be FY 2011.**

# Committee Observations

## NIH-NASA MOU

- ◆ **The committee notes with satisfaction the recent NIH announcement regarding research opportunities on the ISS. The committee congratulates NASA and NIH for their collaboration, which serves as a model for other governmental interagency cooperation**

# Useful Links

## NIH-NASA Research Program Announcement

### **NASA Announcement**

[www.nasa.gov/mission\\_pages/station/science/nlab/nlab\\_proposal.html](http://www.nasa.gov/mission_pages/station/science/nlab/nlab_proposal.html)

### **NIH Press Release**

[www.niams.nih.gov/News\\_and\\_Events/Press\\_Releases/2009/04\\_08.asp](http://www.niams.nih.gov/News_and_Events/Press_Releases/2009/04_08.asp)