

## **IAA Study Group Status Report**

**Responsible Commission:** COMMISSION 2 on Space Life Sciences

**Study Number and Title:** SG 2.9 International Standards for Bed Rest Studies

**Short Study Description** (repeat from Study Group Proposal):

Overall Goal: To define and agree internationally, standard conditions and basic, standard measurements for space flight related bed rest studies.

(Expected scientific or practical benefit of the study group's efforts)

Intermediate Goals: To exchange and analyse existing standards for bed rest studies of different agencies; identify differences and clarify rationales for them; identify approaches to standardized measurements between the agencies; through study group meetings, possibly in conjunction with IAA/IAC symposia, attempt to describe a set of standard conditions and measurements that increase comparability and overall level of quality for bed rest study results. Prepare descriptive report, as well as a “requirements checklist” to evaluate a given bed rest study against the internationally agreed standards. Present the study outcome at scientific symposia.

### **Progress in past six months:**

The bedrest standardization group has been divided in two groups: Study standardization and standardization of measurements.

Bedrest Study standards: The three existing standards (ESAs, NASAs, and the former IMAGs) for bedrest studies have been collected. These are distributed among the group. The first workshop took place on March 25<sup>th</sup> 2010 at ESA HQ, Paris. The second workshop took place September 29<sup>th</sup> 2010 in conjunction with IAC in Prague where the different chapters of the report was discussed. Furthermore it was also clarified to what level of detail the standardization could realistically encompass.

Standard measurements: R. Cromwell, I. Larina and P. Sundblad, have recruited necessary expertise in USA, Russia, and Europe, respectively, in order to develop a draft international set of standard measurements for bedrest studies. Three different lists of measurements have been produced. A series of teleconferences have been conducted and a set of standard measures agreed by IBMP, NASA and ESA has been defined. A first document is drafted that outline the different measurements and how they should be obtained (Standard Operating Procedures. The list as a whole was discussed April 10 2011 in Houston, also taking into account resource requirements for these standard measurements and to set a threshold on the level of ambition related to these. A 2<sup>nd</sup> discussion took place on Oct 16 in Moscow with a discussion in the International

Countermeasure Research Working Group the following day. The standard measurements (the finalization of the report) was also discussed in Houston in February.

The overall draft report is available and will be reviewed within the study group and then finalized in June in conjunction with the ESA/ISGP Life Science Symposium in Aberdeen.

It will be presented at the IAA comm 2 meeting in Paris March 12.

**Website Study Information up to date?** (Study Group Membership, Study Plan and Schedule): Yes

**Issues requiring resolution?** (recommend approach):

No

**Product Deliveries on Schedule?** (If modified explain rationale):

Yes (almost). The aim is to have the draft Study Group Report submitted to IAA by the mid of 2012.

**Study Team Member Changes?**

No

**Name of person providing Study Group Status** (Study Group Chair or Co-Chair):  
Patrik Sundblad, Oleg Orlov

**Status Report Date:** 07/03/2012