



**IAA COMMISSION 2 on Space Life Sciences and  
IAF Technical Committee on Space Life Sciences  
Joint Meeting  
Paris, France**

**Minutes**

**Part 1  
Monday, March 17, 2014**

**1. Welcome and Introduction.**

Dr. O. Orlov welcomed the participants to the meeting. Attachment 1 contains the Agenda for the present meeting, while attachment 2 lists the persons in attendance (17.03 and 18.03).

Dr. M. Belakovskiy informed attendees about the last IAA Commission 2 meeting on September 21, 2013 and the IAA Commission 2 and IAF Technical Committee on Space Life Science joint meeting on September 24, 2013 in Beijing.

The minutes from the last IAA Commission 2 on Space Life Sciences and IAF Technical Committee on Space Life Sciences meetings were revised and accepted.

Dr. Ch. Kourtidou-Papadeli informed attendees about Section 3 Meeting. She reported that the 20<sup>th</sup> HIS Symposium had been discussed and Commission 2 would assist with the scientific program.

She also stressed that during the meeting a need of more members especially women and particularly members from countries like Italy, India and Brazil with space programs with only 0-1 section 3 members had been discussed. She expressed her hope that those members would do their best to propose more candidates the following year.

**2. Study Group Proposals/Activities.**

**2.1. General Overview**

Study Groups (SG) work is one of the most important activities of IAA, and is central during Joint Commissions Meetings and SAC meetings. In present time Commission 2 is conducting 6 projects. 3 of them are on the final stage. Therefore it is necessary to encourage initiatives of making new SGs and ensure maximal spread of the researches' results among scientific community and space agencies.

**2.2. Status/Progress report from Study Group chairs.**

The status of ongoing Commission 2 Studies was discussed. All SGs are on schedule and follow the agreed topics.

Detailed SG reports/status are available on IAA site:

[SG 2.8](#)  
[SG 2.9](#)  
[SG 2.10](#)  
[SG 2.12](#)  
[SG 2.13](#)  
[SG 2.14](#)

### **2.3. Discussion of new proposals.**

Dr. Ch. Kourtidou-Papadeli proposed a new study group on “Space adaptation markers” and said that she was currently preparing the application form.

Mr.P. Sundblad and Dr. O.Orlov made their observations about necessity of continuation of model tests standardization work. SGs were offered to make for development of «International Standards for Dry Immersion Studies» and «Data sharing. Procedure recommendations for analog experiments».

Mr.P. Sundblad informed participants about the AG International Workshop held at NASA Ames Research Center 19-20.02.2014. The workshop showed that there is broad interest among engineers, researchers, managers and international partners to investigate AG as a possible countermeasure for future long duration manned deep space missions. One of the proposed next steps is to establish a peer-review AG research project on an international basis exploiting ground based AG facilities worldwide in a coordinated fashion. Taking in account positive work experience of IMAG group and ICMWG it is reasonable to encourage international science integration, and in doing so take benefit of the IAA SG format.

### **3. Preparation for the 20<sup>th</sup> Human in Space Symposium in 2015.**

Dr. Jan Kolar informed about progress in preparation for the Symposium, which will be held in Prague in June 2015. Convincing information about the place of the Symposium, conditions of living of participants and cultural program was presented.

At present negotiations between the Czech Space Office and the IAA Office are being carried on and a contract must be signed in the near future in accordance with the new procedure of IAA organization. If the contract is not signed, the local organizing committee will anyway start the preparation for the Symposium in accordance with the established procedure. In any case, the first information message must be published by June 2014 in conjunction with appearance of the Symposium's website.

Suggestions for making a scientific program for the Symposium were discussed. All participants expressed their willingness to make proposals in directions of sessions' work as well as in appointing of possible co-chairmen.

All participants agreed to take part in making an agenda and distribution of invitations to leading experts.

Suggestion of active participation in making program on the part of IAA SG expressing by a formula: scientific session and round-table discussion on the subject of every project was accepted.

A scientific program committee will be organized on the basis of concerned party of the Commission 2. Mr. P. Sundblad informed that ESA is willing to take the lead of the scientific committee, and the point of contact is Ms. Jennifer Ngo-Anh. Formation of the scientific committee managed by Ms J. Ngo-Anh must be finished by the end of May 2014.

#### **4. New Conference Proposals.**

Dr. O. Orlov informed participants that an increased number of symposia and conferences, conducted by IAA commissions, have been asked for by the IAA Office during the general meeting of the commissions.

During the discussion participants agreed to revert to the detailed work on organizational and financial details of the suggestion from the IAA Office after signing the contract between the Czech Space Office and the IAA Office about 20<sup>th</sup> Human in Space Symposium.

#### **5. Acta Astronautica and other Publications.**

Dr. R.Gerzer informed participants about efforts directed to increase publication activity, prestige and popularity of Acta Astronautica edition.

Discussions about practice of publication of the research results of SG-work were taken place. It was admitted that it is important to publish SG projects in peer reviewed scientific journals. In addition, to increase the availability of the results of the researches for the general public it is necessary to set the final reports of the investigations on the Academy's site with free access for all IAA members. One of the subjects of the agreement between IAA and sponsors of the publication was distribution of final reports in printed matter. At the same time it is vital to take into account author's rights for some part of the circulation as well as the possibility to save some other part of the circulation for free when sending copies to space agencies and other interested organizations.

#### **6. IAA Heads of Space Agencies Summit: follow-on activities.**

Dr. R.Gerzer summarized the IAA Summit Declaration presented on January 10, 2014. Leaders of 34 space agencies from around the world gathered in Washington, D.C. for the International Academy of Astronautics' (IAA) Heads of Space Agencies Summit of Explorations.

Significant work of SG 2.13 "Space Life Sciences in the Exploration Era" on preparation for the final reports of the Summit was noted. Expediency of the present project preservation was admitted as well as directing all efforts of participants to realization of the recommendations, following from the results of Summit's discussions.

**7. Discussion will be resumed in the second part of the joint meeting.**

## **Part 2.**

**Tuesday, March 18, 2014.**

### **8. Welcome and Introduction.**

Dr. O. Orlov welcomed participants to the joint meeting. Results of the discussions completed the day before SAC meeting and discussion about the procedure of publication and final report distribution were presented. Participants were informed about necessity to submit applications for 3 new SGs before meeting in Toronto. SAC expressed its support for initiative of prolongation of SG 2.13.

### **9. Report on the 64th IAC in Beijing, 23-27 September, 2013.**

Dr. O. Orlov provided information received from Mr. F. Zhuang. The fact that 14 from 87 oral reports were canceled without explanation of reasons at the last moment was of concern to the organizers. 38 from 74 of poster reports were not given as well. It was noted that these kind of cancellation have happened repeatedly in the past. It was decided to focus session co-chairman's attention to necessity of preliminary confirmations from the presenters well before the meeting. Dr. P. Graef promised to inform co-chairmen about that recommendation by the official correspondence of the organizing committee. In case the reports are not taken place, it will be taken in account during these selection and formation of a new program of the next Congress.

### **10. Preparations for 65th IAC in Toronto, Canada.**

Dr. N. Buckley told about preparations for the Space Life Symposium (A.1), which will be held in the context of the 65th IAC in Toronto, Canada, 29. September 2014 – 3. October 2014. It will have eight sessions and all Co-Chairs and Rapporteurs have been identified and presented ideas for plenary sessions.

### **11. Preparation activities.**

Dr. P. Graef informed about planned conduction of the 6th “International Congress of Medicine in Space and Extreme Environment”, which will take place on 16-19 September 2014 in Berlin (Germany) ([www.icms2014.de](http://www.icms2014.de)), as well as about Space Life Science Symposium 66<sup>th</sup> IAC in Jerusalem, Israel in 2015 (exact dates unknown).

#### **- COSPAR 2014**

Dr. P. Graef informed committee about the status of activities on preparation of 40<sup>th</sup> COSPAR Scientific Assembly planned to be held in Moscow in the period of 2-10 August 2014.

BION Dr. M. Belakovskiy informed participants about preparations for the 15<sup>th</sup> Conference on Space Biology and Aerospace Medicine With International Participation “BION-M1 PROJECT: Results and Forward Plans” (<http://bion-m.com/en/home>).

**12. Formation of the “ISS Virtual Institute of Space Life Science”(R. Gerzer) and**

**13. Information on the “International Center for biomedical aspects of human space exploration missions” (O.Orlov).**

Dr. R. Gerzer informed participants about initiative of making «ISS Virtual Institute of Space Life Science», supported by the IAA Office. Dr O.Orlov informed participants about the initiative of IBMP to make «International Center for biomedical aspects of human space exploration missions» supported by Roscosmos, RAS and FASO RF. Participants noted that both parties met interests of consolidation of scientific community for the purpose of the most effective solution of Life Science problems in view of plans of long duration manned deep space missions and also the result from the recommendations of Heads of Space Agencies Summit of Explorations. Consolidation of both presented approaches will act to solve the problem in a most effective way. The Institute must unite scientists and specialists, working in the area of spacelife science and related sciences areas both from scientific organizations and from universities of the countries which are members of Space programs as well as organizations and universities of developing countries, which do not have access to space exploration programs. The Center will act to pool resources of the organizations for joint objectives, and will have ground-based facilities and infrastructure for carrying out agreed experimental programs.

Participants agreed that it is necessary to canvass the concept of making the Center and the Institute and decided to carry that work in the context of SG 2.13. Dr. R. Gerzer will coordinate the work on format changes and purposes of the SG with the concerned participants and present the results in accordance with the established procedure in IAA Office. Participants came to agreement to finish that work up until the meeting in Toronto.

**14. Next Meeting and Work between Meetings.**

Next joint Meeting of the IAA Commission 2 and IAF Technical Committee on Life Sciences will be held in Toronto in September-October, 2014.

Taking into account an experience of organizational work in Beijing participants decided to hold one joint meeting during the Congress. Dr. P. Graef took upon himself the reservation of a meeting place for the required period. Participants decided to solve all questions demanding on preliminary coordination before the meeting by the correspondence.

**15. Other business.**

15.1. Dr. N. Buckley informed participants about Expert Meeting on International Space Station Benefits for Health in Vienna, Austria on 19-20 February 2014. Participants agreed that cooperation with the UN may have

significant effect on organization of innovation activity to implement of space medicine's plans for the benefit of practical healthcare. Dr. N. Buckley will discuss possibility and format of the cooperation with the representatives of the concerned party in the UN and submit a proposal at the meeting in Toronto.

15.2. Participants discussed and agreed that it is necessary to announce the start of submission applications for conducting the 21<sup>th</sup> Humans in Space Symposium during IAA-IAF session in 2015 in Paris. Up until that time participants will discuss possibilities of appropriate candidates to arrange the conference.



**IAA COMMISSION 2 on Space Life Sciences and  
IAF Technical Committee on Space Life Sciences  
Joint Meeting**

**Part 1  
Monday, March 17, 2014  
13.30 – 16.00**

**IAA Offices,  
6 rue Galillee,  
Paris, France 75116**

**Co-Chairs – O.Orlov/R.White**

**Agenda**

**1. Welcome & Introductions (R.White/O.Orlov)**

Review of minutes from the last IAA Commission 2 meeting on September 21, 2013 and the IAA Commission 2 and IAF TC on SLS joint meeting on September 24, 2013 in Beijing (M. Belakovskiy)

**2. Study Group Proposals/Activities**

2.1. General overview

2.2. Status/Progress report from Study Group chairs

- SG 2.8 e-Learning and Space Life Sciences (Ch. Kourtidou/G. Horneck)
- SG 2.9 International Standards for Bed Rest Studies (P. Sundblad/O. Orlov)
- SG 2.12 Effectiveness of different physiological countermeasures to spaceflight deconditioning (J. Charles/I. Kozlovskaya)
- SG 2.13 Space Life Sciences in the Exploration Era (R. Gerzer/R. White)
- SG 2.14 Medical Support for an International Human Expedition to Mars (O. Orlov/J. Davis)

2.3. Discussion of new proposals

**3. Preparations for the 20th Human in Space Symposium in 2015 (J. Kolar)**

**4. New Conference Proposals**

**5. Acta Astronautica and other Publications**

**6. IAA Heads of Space Agencies Summit: Follow-on Activities**

**7. Other Business**



**IAA COMMISSION 2 on Space Life Sciences and  
IAF Technical Committee on Space Life Sciences  
Joint Meeting**

**Part 2  
Tuesday, March 18, 2014  
0830 - 1030**

***CAP 15*  
1-13 Quai de Grenelle  
75015 Paris, France**

**Co-Chairs –R.White/O.Orlov**

**Agenda**

**8. Welcome/Introductions: Second Day of Space Life Sciences Joint Committee Meeting (O.Orlov/R.White)**

**9. Report on the 64th IAC in Beijing, September 23-27, 2013 (Sh. Chen/F. Zhuang)**

**10.Preparations for 65<sup>th</sup> IAC in Toronto, Canada, 29 September 2014 - 3 October 2014 (N. Buckley/R. White)**

- 10.1. Space Life Sciences Symposium (A.1)
- 10.2. Plenary Sessions
- 10.3. Discussion of new proposals for program activities

**11.Preparation Activities (P. Graef)**

- Information on the 6th “International Congress of Medicine in Space and Extreme Environments” in Berlin, Germany, September, 2014

- A1 Space Life Sciences Symposium for 66th IAC in Jerusalem, Israel 2015

**12. Information on the “International Center for biomedical aspects of human space exploration missions” (O. Orlov)**

**13. Formation of the “ISS Virtual Institute of Space Life Sciences” (R. Gerzer)**

**14.Next Meeting and Work between Meetings**

- IAA Commission 2 and IAF TC on Life Sciences Meeting in Toronto, September-October, 2014

**15.Other Business TBD.**





