

*The National Academies of*  
**SCIENCES • ENGINEERING • MEDICINE**

DIVISION ON ENGINEERING AND PHYSICAL SCIENCES  
AERONAUTICS AND SPACE ENGINEERING BOARD

**COMMITTEE ON BIOLOGICAL AND PHYSICAL SCIENCES IN SPACE**  
**December 13 – 14, 2016**  
**Beckman Center – 100 Academy Drive – Irvine, CA**  
**Huntington Room**

**Tuesday December 13, 2016**

**CLOSED SESSION**

**Wednesday December 14, 2016**

**7:15 AM**      Gather in hotel lobby for carpool to Beckman

**7:30 AM**      Meeting Room Opens (*Breakfast available in the Beckman Center Refectory*)

**OPEN SESSION<sup>1</sup>**

**8:30 AM**      **SLPSRA Program Overview and Status (ASGSR recording)**      **Craig Kundrot, NASA**

**9:00 AM**      **Discussion and Q&A**      **Craig Kundrot, NASA (WebEx)**

**9:40 AM**      **Physical Sciences Program**      **Francis Chiaramonte, NASA (WebEx)**  
- Overview, status and planning  
- Research findings and challenges  
- Update on MaterialsLab (and CombustionLab/FluidsLab efforts, etc.)  
- Physical Science Informatics (PSI)

**10:25 AM**      **Discussion and Q&A**      **Francis Chiaramonte and NASA Participants**

**11:00 AM**      *Break*

**11:15 AM**      **Space Biology Program**      **David Tomko, NASA**  
- Status, planning, research findings, challenges  
- Genelab Status

**12:00 PM**      **Discussion and Q&A**      **David Tomko and NASA Participants**

**12:30 PM**      *Lunch available in the Beckman Center Refectory, committee discussion will continue*

**1:25 PM**      **Human Research Program**      **Steve Davison, NASA**  
- Status, planning, research findings, challenges  
- ISS countdown on countermeasures

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<sup>1</sup> WebEx access: (See Remote Connection details at the end of the agenda)

<b>2:05 PM</b>	<b>Discussion and Q&amp;A</b>	<b>Steve Davison and NASA Participants</b>
<b>2:35 PM</b>	<b>Fundamental Physics Program</b>	<b>Brad Carpenter, NASA</b>
<b>3:05 PM</b>	<i>Break</i>	
<b>3:20 PM</b>	<b>Discussion of SLPSRA Concerns</b> <ul style="list-style-type: none"> <li>- Near term concerns and needs</li> <li>- Transition Issues</li> <li>- Mid-term study</li> <li>- Microgravity research beyond ISS</li> </ul>	<b>Brad Carpenter and Angel Otero, NASA</b>
<b>4:30 PM</b>	<i>Adjourn Open Session</i>	
<b>CLOSED SESSION</b>		
<b>5:30 PM</b>	<i>Meeting Adjourns</i>	
<b>5:35 PM</b>	Return via carpool from Beckman to the hotel	

## REMOTE CONNECTION DETAILS

**Wednesday, December 14, 2016**

### OPEN SESSION

Topic: CBPSS Open AM, Day 2

Open Time: 8:30 am, Pacific Standard Time

1. Go to <https://nationalacademies.webex.com/nationalacademies/j.php?MTID=m2e3ede978dbcc0cf2807e1275432c12e> for a direct connection to the Webex meeting.
2. Enter your phone number to have WebEx call you.

If prompted, enter meeting number and password.

Meeting Number: 741 354 018

Meeting Password: Open1214

If you are not connecting via WebEx but connecting by phone:

1. Call-in toll-free number: 1-866-668-0721 (within the US only)
2. Telecon Conference Code: 218 737 5164 (this is for the telecon audio connection only)

If you require a toll free number to call in from outside the United States, please contact Dionna Williams ([DWilliams@nas.edu](mailto:DWilliams@nas.edu)).

## NOTES

**Note to Observers:** This meeting is being held to gather information to help the committee conduct its activities. The committee will examine the information and material obtained during open sessions in an effort to inform its work. Although opinions may be stated and lively discussion may ensue, no conclusions are being drawn at this time. Therefore, observers who draw conclusions about the committee's work based on discussions during this meeting will be doing so prematurely. Furthermore, individual committee members often engage in discussion and questioning for the specific purpose of probing an issue and sharpening an argument. The comments of any given committee member may not necessarily reflect the position he or she may actually hold on the subject under discussion, to say nothing of that person's future position as it may evolve in the course of the committee's activities

**Note to Presenters:** If your presentation contains unpublished data, ITAR controlled and/or other sensitive information, please be aware that the open sessions at the meeting will be webcast and presentation materials given to the committee may be posted on a publicly accessible website. Please edit your presentations accordingly.

**Beckman Center:** Is located on the campus of the University of California, Irvine, and is approximately 3 miles from Orange County/John Wayne Airport. See the following website for more information, including directions: <http://www7.nationalacademies.org/beckman/>.

**Breakfast and Lunch:** Available free of charge to all committee members and guests in the refectory at the Beckman Center. Those meeting participants who are ethically bound to pay for these meals can do so if they wish: Breakfast \$15.00 and Lunch \$16.00. Checks payable to the National Academy of Sciences preferred.

**Parking:** There is plenty of free parking at the Beckman Center.

**Airports:** Orange County/John Wayne Airport (SNA) is about 2 miles from both the Beckman Center. Los Angeles International Airport (LAX) is about 40 miles from the meeting site. Long Beach Airport (LGB) is about 26 miles distant.