

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

DIVISION ON ENGINEERING AND PHYSICAL SCIENCES
SPACE STUDIES BOARD

Committee on Extraterrestrial Sample Analysis Facilities
Meeting #2: January 22-24, 2018

Monday, January 22, 2018

Lunar and Planetary Institute
3600 Bay Area Blvd.

Hess Room
Houston, TX 77058

CLOSED SESSION

9:00 a.m. Committee-only discussion

10:00 a.m. *Break*

OPEN SESSION

Remote Access Information

Link: <https://nasem.zoom.us/j/434639240>

Toll-free dial: +1 (877) 853-5257, +1 (855) 880-1246

Meeting ID: 434 639 240

10:30 a.m. The Curation and Analysis of Challenging Materials: Part I Panel Discussion
Murthy Gudipati, NASA JPL
Christopher Herd, University of Alberta, *via Zoom*
Perry Gerakines, NASA Goddard, *via Zoom*
Philip Rumford, Texas A&M

12:30 p.m. *Working lunch*

1:30 p.m. Laboratory Management and Viability: Part 1 Panel Discussion
Jason Dworkin, NASA Goddard
Noriko Kita, University of Wisconsin, *via Zoom*
Rhonda Stroud, U.S. Naval Research Laboratory

3:00 p.m. *Break*

3:30 p.m. Laboratory Management and Viability: Part 2 Panel Discussion
Edward Young, University of California Los Angeles
Alan Brandon, University of Houston
Rita Parai, University of Washington, St. Louis
Steve Sutton, University of Chicago, *via Zoom*

5:00 p.m. General discussion Committee & Guests

5:30 p.m. *Meeting moves to alternate location for working dinner*

6:00 p.m. *Dinner at TBD*

Tuesday, January 23, 2018

Lunar and Planetary Institute
3600 Bay Area Blvd.

Hess Room
Houston, TX 77058

OPEN SESSION

Remote Access Information

Link: <https://nasem.zoom.us/j/322546995>

Toll-free dial: +1 (877) 853-5257, +1 (855) 880-1246

Meeting ID: 322 546 995

Working breakfast available in meeting room for committee and invited guests.

8:30 a.m. Meeting convenes with general discussion Committee & Guests

9:00 a.m. Technological Development & Innovation in Techniques Panel Discussion
Andrew Davis, University of Chicago
Rich Walker, University of Maryland, *via Zoom*
Edward Young, University of California Los Angeles
Kevin McKeegan, University of California Los Angeles, *via Zoom*

11:00 a.m. CAESAR Steve Squyres
Cornell University
(Working lunch available during talk)

12:20 p.m. *Depart to Johnson Space Center*

1:00 p.m. Committee Tour of Johnson Space Center Curation & Analysis Facilities

Meeting adjourns for the day following tours

Wednesday, January 24, 2018

Lunar and Planetary Institute
3600 Bay Area Blvd.

Hess Room
Houston, TX 77058

OPEN SESSION

Remote Access Information

Link: <https://nasem.zoom.us/j/410677112>

Toll-free dial: +1 (877) 853-5257, +1 (855) 880-1246

Meeting ID: 410 677 112

Working breakfast available in meeting room for committee and invited guests

9:00 a.m. The Curation and Analysis of Challenging Materials: Part II Panel Discussion
Michael Zolensky, NASA JSC
Conel Alexander, Carnegie Institution, *via Zoom*
John Rummel, SETI Institute, *via Zoom*
Dionysis Foustoukos, Carnegie Institution, *via Zoom*
Matt Schrenk, Michigan State University, *via Zoom*
Jan Amend, University of Southern California, *via Zoom*

10:30 a.m. *Break*

CLOSED SESSION

11:00 a.m. Committee-only discussion

3:00 p.m. *Meeting adjourns*

Statement of Task

To prepare for the analysis of diverse extraterrestrial samples in the coming decade, NASA requires information on the current capabilities of the planetary science community's analytical laboratory facilities, their future requirements, and any associated challenges. Therefore, the National Academies of Sciences, Engineering, and Medicine will assemble a committee to perform a study addressing the following questions:

- What laboratory analytical capabilities are required to support the NASA Planetary Science Division's (and partners') analysis and curation of existing and future extraterrestrial samples?
- Which of these capabilities currently exist, and where are they located (including international partner facilities)?
- What existing capabilities are not currently accessible that are/will be needed?
- Whether the current sample laboratory support infrastructure and NASA's investment strategy meets the analytical requirements in support of current and future decadal planetary missions.
- How can NASA ensure that the science community can stay abreast of evolving techniques and be at the forefront of extraterrestrial sample analysis?

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.

Working Dinner: All meeting participants can attend. The Academies will only pay for members of the committee and guest speakers. Unfortunately, the Academies cannot pay for civil servants. The cost of the dinner is \$50.00. Checks, payable to the National Academy of Sciences, are preferred.