

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

DIVISION ON ENGINEERING AND PHYSICAL SCIENCES
SPACE STUDIES BOARD

**ASTROBIOLOGY SCIENCE STRATEGY FOR THE SEARCH FOR LIFE IN THE
UNIVERSE**

Meeting #3: April 25 – 27, 2018

Wednesday, April 25, 2018

Keck Center
500 5th Street, NW

Room 207
Washington, DC 20001

MEETING CONVENES IN CLOSED SESSION

OPEN SESSION

Remote Access Information

U.S. (phone): +1 (646) 558-8656 or +1 (669) 900-6833

Meeting ID: 185-719-797

France (phone): +33 (0) 1 8288 0188 or +33 8 0508 2588

Link: <https://nasem.zoom.us/j/185719797>

9:30 a.m. Panel Discussion: Partnerships in Astrobiology Committee & Guests
Christopher Carr, Massachusetts Institute of Technology
Bill Diamond, SETI Institute
Julie Wolf-Rodda, Foundation for the NIH
Pete Worden, Breakthrough Initiatives

12:15 p.m. *Discussion will continue over a working lunch* Committee & Guests

1:30 p.m. MinION and Adapting Tech for the Space Environment Christopher Carr
Massachusetts Institute of Technology

COMMITTEE WILL GO INTO CLOSED SESSION FOLLOWING THE TALK

Thursday, April 26, 2018

Keck Center
500 5th Street, NW

Room 207
Washington, DC 20001

COMMITTEE IS IN CLOSED SESSION ALL DAY

Friday, April 27, 2018

Keck Center
500 5th Street, NW

Room 202
Washington, DC 20001

COMMITTEE IS IN CLOSED SESSION ALL DAY

Statement of Task

In preparation for and as an input to the upcoming decadal surveys in astronomy and astrophysics and planetary science, the National Academies of Sciences, Engineering, and Medicine will appoint an ad hoc committee to carry out a study of the state of the science of astrobiology as it relates to the search for life in the solar system and extrasolar planetary systems. The study will have the following objectives:

- Take account of and build on NASA's current Astrobiology Strategy 2015;
- Outline key scientific questions and technology challenges in astrobiology, particularly as they pertain to the search for life in the solar system and extrasolar planetary systems;
- Identify the most promising key research goals in the field of the search for signs of life in which progress is likely in the next 20 years;
- Discuss which of the key goals could be addressed by U.S. and international space missions and ground telescopes in operation or in development;
- Discuss how to expand partnerships (interagency, international and public/private) in furthering the study of life's origin, evolution, distribution, and future in the universe;
- Make recommendations for advancing the research, obtaining the measurements, and realizing NASA's goal to search for signs of life in the universe

In the course of conducting this study, the committee will consider and regularly consult with the concurrent study “Exoplanet Science Strategy,” in the area of assessing habitability, searching for signs of life, and other relevant areas of scientific overlap. Also the committee will not revisit or redefine the scientific priorities or mission recommendations from previous decadal surveys.

The following information is provided for any members of the general public who may be in attendance:

This meeting is being held to gather information to help the committee conduct its study. This committee will examine the information and material obtained during this, and other public meetings, 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 and no recommendations will be made. In fact, the committee will deliberate thoroughly before writing its draft report. Moreover, once the draft report is written, it must go through a rigorous review by experts who are anonymous to the committee, and the committee then must respond to this review with appropriate revisions that adequately satisfy the Academy's Report Review committee and the chair of the NRC before it is considered an NRC report. Therefore, observers who draw conclusions about the committee's work based on today's discussions 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 project. Any inference about an individual's position regarding findings or recommendations in the final report are therefore also premature.

NOTES

Keck Center: Is located at 500 Fifth St. NW, in Washington's Penn Quarter district, adjacent to Judiciary Square and the Verizon Center. The closest Metro stations are Gallery Place/Chinatown (Red, Green and Yellow lines; take "7th and F St." exit and turn left) and Judiciary Square (Red line; take National Building Museum exit and turn left). Directions available at the following website: <http://www.nationalacademies.org/about/contact/nax.html>.

Keck Security/ID required: Meeting attendees entering the building will need to show a photo ID to the Security Guard, who checks the ID against the attendee list.

Keck Parking: There is plenty of free parking in the Keck Center's underground lot. Access to the lot is off of Sixth Street (between E and F Streets).

Wi-Fi Connection: To connect to the Wi-Fi choose "Visitor Network" then open up a browser and click "Accept terms and conditions." You will then be connected to the internet.

Meals: Breakfast and lunch will be available at the meeting. In order to remain in compliance with government guidelines that preclude civil servants from accepting meals, we have provided a break-down for civil servants needing to reimburse those costs. The reimbursement cost of breakfast is \$16 and is \$17 for lunch. Checks, payable to the National Academy of Sciences, are preferred. There is also a refectory available for purchasing your meals in the building on the 3rd floor.