

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

**Science and Innovation Leadership for the 21st Century:
Challenges and Strategic Implications for the United States**

3rd Meeting: February 11-12, 2020

**Lecture Room
National Academy of Sciences
2101 Constitution Avenue, NW
Washington, DC 20418**

Committee Agenda

**Tuesday – February 11, 2020
OPEN SESSIONS**

9:00 AM Welcome and Introductions

Erica Fuchs, Eric Lander, co-chairs

9:05 AM US Standing in Key S&T Fields, Panel A: AI and Machine Learning

Moderator: Ajay Agrawal*

Speakers: Cynthia Dwork, Harvard University (via Zoom)
Hsiao-Wuen Hon, Microsoft
Raquel Urtasun, Uber (via Zoom)
Shivon Zilis, Tesla and Neuralink (via Zoom)

10: 30 AM US Standing in Key S&T Fields, Panel B: Computing Devices

Moderator: John Hennessy* (via Zoom)

Speakers: William Dally, Nvidia
John Manferdelli, Northeastern University and Ntrepid Corp.
Subhasish Mitra, Stanford University and Carbon Nanotubes
John Neuffer, Semiconductor Industry Association
Wally Rhines, Mentor Graphics

12:30 PM Lunch (East Court)

1:00 PM Discussion with Eric Schmidt, Google

1:45 PM Break

2:00 PM US Standing in Key S&T Fields, Panel C: Clean Energy

Moderator: Arun Majumdar*

Speakers: Steven Chu, Stanford University (via Zoom)
Charlie Gay, Solar Energy Technologies Office Director, DOE
(ret'd)
Richard Swanson, SunPower (ret'd)
Ellen Williams, University of Maryland

3:45 PM Adjourn Open Session

Wednesday – February 12, 2020
National Academy of Sciences, Lecture Room
OPEN SESSIONS

8:00 AM Breakfast

8:30 AM Welcome and Introductions

Erica Fuchs, Eric Lander, co-chairs

8:35 AM Session 2: Manufacturing and Defense Industrial Supply Base

Moderator: Michael McQuade*

Speakers: Christine Furstoss, GE Additive
Andreas Roelofs, United Technologies Research Center

**10:00 AM Session 3: Overview of US Technology Controls:
CFIUS/NSDD-189/Export Controls**

Gerald Epstein, National Defense University

10:40 AM Break

**10:50 AM US Standing in Key S&T Fields, Panel D: Synthetic Biology and
Engineering Biology**

Moderator: Christina Smolke*

Speakers: Jef Boeke, Institute for Systems Genetics, New York University
Drew Endy, Stanford University (via Zoom)
Pamela Silver, Harvard Medical School (via Zoom)

12:20 PM Session 4: International S&T Agreements

John Holdren, Harvard University (via Zoom)

1:00 PM Adjourn Open Session