Sunday, October 15

3:00 pm Check-in

6:00 pm Reception *(Lobby)*

7:00 pm Dinner *(Dining Room)*

7:30 pm **Welcome & Opening Remarks by Organizers** *(Dining Room)*

7:35 pm **Poster presentations** *(Dining Room)*
Each poster presenter gives a 1-minute overview of their work

8:15 pm **Challenges Council** *(Seminar Room)*
Jose Rodriguez, *University of California, Los Angeles*

9:00 pm Refreshments available at Bob's Pub

NOTE:
Meals are in the **Dining Room**
Talks are in the **Seminar Room**
Posters are in the **Lobby**

Monday, October 16

Talks are 20 min + 5 min for Q&A

7:30 am Breakfast *(service ends at 8:45 am)*

9:00 am **Session 1**
Chair: Doreen Matthies

9:00 am **James Fraser,** University of California, San Francisco
Conformational change we can believe in!

9:25 am **Karen Davies**, Lawrence Berkeley National Laboratory
Electron cryo-tomography: A method for evaluating cellular processes at atomic resolution

9:50 am **Marcus Gallagher-Jones**, University of California, Los Angeles
Investigating the NanoAnatomy of a protein crystal by 4D-STEM

10:15 am Break

10:45 am **Session 2**
Chair: Eugene Palovcak

10:45 am **Robin Owen**, Diamond Light Source
Serial and conventional approaches for microcrystal data collection at Diamond and beyond

11:10 am **Helen Ginn**, University of Oxford
Detector geometry

11:35 am **Johan Hattne**, Janelia Research Campus/HHMI
Initial observations of radiation damage in MicroED

12:00 pm Lunch *(service ends at 1:00 pm)*

2:00 pm **Session 3**
Chair: Fuguo Jiang

2:00 pm **Robert Rambo**, Diamond Light Source
Application of information theory to real-spacing modeling of solution state SAXS

2:25 pm **Carolin Seuring**, The Center for Free-Electron Laser Science (CFEL)
XFEL imaging of Amyloid Fibrils on graphene

2:50 pm **Loes Kroon-Batenburg**, Utrecht University
EVAL15: A ray-tracing method to model diffraction from crystals

3:15 pm Break

3:45 pm **Session 4**
Chair: Daniel Asarnow

3:45 pm **Garib Murshudov**, MRC Laboratory of Molecular Biology
Refinement of atomic models against cryoEM maps and electron diffraction data

4:10 pm **Brent Nannenga**, Arizona State University
Toward technology developments in MicroED

4:35 pm **Hong Zhou**, University of California, Los Angeles and **Tamir Gonen**, HHMI/University of California, Los Angeles
Challenges in running, maintaining and operating a user focused cryoEM center

5:00 pm Poster reception

6:30 pm Dinner

7:30 pm **Keynote: David Eisenberg**, HHMI/University of California, Los Angeles
The challenge of the structural biology of the amyloid state of proteins

8:30 pm Refreshments available at Bob's Pub

Tuesday, October 17

7:30 am Breakfast *(service ends at 8:45 am)*

9:00 am **Session 5**
Chair: David Boyer

9:00 am **Ilme Schlichting**, Max Planck Institute for Medical Research
TBD

9:25 am **Thomas Terwilliger**, Los Alamos National Laboratory
Model-building using cryo-EM and crystallographic maps

9:50 am **Aaron Brewster**, Lawrence Berkeley National Laboratory
Current challenges in serial crystallographic data reduction at XFELs and synchrotrons

10:15 am Break

10:45 am **Session 6**
Chair: Shikha Singh

10:45 am **Michael Martynowycz**, Janelia Research Campus/HHMI
TBD

11:10 am **Jan Kern**, Lawrence Berkeley National Laboratory
Studies of reaction intermediates in photosystem II using fs X-ray pulses

11:35 am **Tamir Gonen**, HHMI/University of California, Los Angeles
The first 4 years of MicroED

12:00 pm Lunch *(service ends at 1:00 pm)*

1:00 pm Tour *(optional - meet at reception)*

2:00 pm **Session 7**
Chair: Ernesto L. Guevara

2:00 pm **Yifan Cheng**, HHMI/University of California, San Francisco
TRPV1 structure in lipid nanodisc by single particle cryo-EM

2:25 pm **Jelena Ninkovic**, Max Planck Society Semiconductor Laboratory
X-ray imaging with small-pixel pnCCD

2:50 pm **Eiichi Mizohata**, Osaka University
Damage-free protein structure determination using X-ray free electron laser at SACLA

3:15 pm Break

3:45 pm **Session 8**
Chair: Pablo Maturana

3:45 pm **Andrew Aquila**, SLAC National Accelerator Laboratory
Single particle imaging at the linac coherent light source

4:10 pm **Guillermo Calero**, University of Pittsburgh
TBD

4:35 pm **Henry Chapman**, Deutsches Elektronen-Synchrotron
Opportunities for structure determination using XFELs

5:00 pm Poster reception

6:30 pm Dinner

7:30 pm Refreshments available at Bob's Pub

Wednesday, October 18

7:30 am	Breakfast *(service ends at 8:45 am)*
9:00 am	**Session 9** **Chair: Diana Garrido**
9:00 am	**Thomas Barends**, Max Planck Institute for Medical Research *Observing protein dynamics with (sub)picosecond time-resolution serial femtosecond crystallography*
9:25 am	**Jacques-Philippe Colletier**, Centre National de la Recherche Scientifique *A potent binary mosquito larvicide revealed by de novo phasing with an x-ray free-electron laser*
9:50 am	**Henry van den Bedem**, Stanford University *Resolving molecular mechanisms and catalytic motions by conventional, serial, and computational crystallography*
10:15 am	Break
10:45 am	**Session 10** **Chair: Debakshi Mullick**
10:45 am	**Hong Zhou**, University of California, Los Angeles *Imaging RNA genomes and RNA polymerase complex inside RNA viruses*
11:10 am	**Jose Rodriguez**, University of California, Los Angeles *Macromolecular structures at ultra-high resolution by MicroED*
11:35 pm	Closing Discussion /Final Remarks
12:00 pm	Lunch and Departure
12:30 pm	First shuttle to Dulles
1:30 pm	Second shuttle to Dulles
2:30 pm	Last shuttle to Dulles