
2016 NORTHWEST CRYSTALLOGRAPHY WORKSHOP CONFERENCE

Friday June 17, 2016

Smith Center for Undergraduate Education Building (CUE)

4:30 – 6:00 p.m.: *Check-in and poster set-up*

7:30 – 9:00 p.m.: *Reception and Poster Session*

Saturday June 18, 2016

CUE Atrium:

7:30 – 8:30 a.m. *Breakfast*

Session 1: Structure/Function I (Chair: Andy Karplus)

CUE Room 202: Welcoming remarks

8:30 – 8:40 a.m. ChulHee Kang, Washington State University

8:40 – 9:05 a.m. **T1: X-ray structure shows how the binding of a hexapeptide fragment of CsmA alters the surface of the FMO protein and could enhance binding of the eighth bacteriochlorophyll-a molecule.**

Dale E. Tronrud, Oregon State University

9:05 – 9:30 a.m. **T2: Towards the structure of Csa3, a transcriptional regulator mediating CRISPR spacer acquisition in *Sulfolobus islandicus*.**
Ece Topuzlu, Montana State University

9:30 – 9:55 a.m. **T3: Structural and enzymatic characterization of the *Sorghum bicolor* monolignol biosynthesis pathway.**

Alexander Walker, Washington State University

9:55 – 10:20 a.m. **T4: The Structure of Snu13 from *C. merolae*: glimpses of a highly reduced spliceosome**

Corbin Black, University of Northern British Columbia

10:20 – 10:50 a.m.: *Coffee Break, posters, and visiting with vendors*

Session 2: Methods I (Chair: Martin Lawrence)

10:55 – 11:20 a.m. **T5: Thermal Contraction Guided Cryoprotectant**

Optimization in Macromolecular Cryocrystallography.

Douglas Juers, Whitman College

11:20 – 11:45 a.m. **T6: Biological SAXS in the home laboratory**
Conn Mallett, RIGAKU USA

11:45 – 12:10 a.m. **T7: GPCR-GPCR interactions: Crystal Packings and Oligomers.**
Ronald E. Stenkamp, University of Washington.

CUE Atrium:

12:10 – 1:25 p.m. *Lunch*

Session 3: Protein Engineering and Evolution (Chair: Ronald Stenkamp)

1:30 – 1:55 p.m. **T8: Targeting Influenza and Ebola targets using fragment screening D.R.**
Doug Davies, Beryllium, WA

1:55- 2:20 p.m. **T9: Determination of the structure and function of a class III plant peroxidase from *Panicum virgatum***
Timothy W. Moural Washington State University

2:20 – 2:45 p.m. **T10: Characterization of Two Human Skeletal Calsequestrin Mutants Implicated in Malignant Hyperthermia and Vacuolar Aggregates Myopathy**
Kevin Lewis, Washington State University

2:45 – 3:10 p.m. **T11: On The Reliability Of Peptide Non-Planarity Or: How I Learned To Stop Worrying And Love The Bond.**
Andrew E. Brereton, Oregon State University

3:10 – 3:35 p.m. **T12: Structural and Biochemical Characterization of EDTA Monooxygenase.**
Se-Young Jun, Washington State University

3:35 – 4:00 p.m. **T13: Three distinct structural states of the nitrogenase P-cluster revealed by X-ray structures of the MoFe protein at defined redox potentials.**
Stephen M. Keable, Montana State University

4:00 – 5:45 p.m.: *Posters and Vendors*

Compton Union Building Junior Ballroom: Banquet and Keynote Lecture

6:00 – 7:30 p.m.: *Banquet Dinner*

- 7:30 – 7:45 p.m.: Welcoming Speech, Dr. Christopher, Keane
“**WSU Research Overview**”
- 7:45 – 8:45 p.m.: Keynote Lecture, Dr. Keith Dunker
“**Intrinsically Disordered Proteins and Protein Crystallography**”
- 9:00 – 10:30 p.m.: Networking Social

Sunday, June 19, 2016

Session 4: Structure/Function II (Chair: Douglas Juers)

CUE Atrium:

8:00 – 8:45 a.m.: *Continental breakfast*

CUE Room 202: Presentations

8:45 – 9:10 a.m. **T14: Collaborative Efforts to Tease-out the Structure for the Bas-Congo U1 Protein.**

Garry W. Buchko, Pacific Northwest National Laboratory.

9:10 – 9:35 a.m. **T15: Morpheein Behavior of *Burkholderia cenocepacia* HMG-CoA Reductase**

Jeffrey Watson, Gonzaga University

9:35 – 10:00 a.m. **T16: Indirect DNA Sequence Recognition and Its Impact on Nuclease Cleavage Activity**

Jazmine Hallinan, Fred Hutchinson Cancer Research Center.

10:00 – 10:25 a.m.: *Coffee Break*

Session 5 Structure/Function III (Chair: Garry Buchko)

10:25 – 10:50 a.m. **T17: Characterizations of Two Bacterial Persulfide Dioxygenases of the Metallo- β -lactamase Superfamily.**

Steven A. Sattler, Washington State University

10:50 – 11:15 a.m. **T18: Electron Bifurcation: Structural insights into NADH-dependent ferredoxin NADP oxidoreductase (NfnI) from *Pyrococcus furiosus***

Oleg A. Zadvornyy, Montana State University

10:50 – 11:15 a.m. **T19: High resolution studies of hydride transfer in the ferredoxin:NADP⁺ reductase superfamily**

Kelsey Kean, Oregon State University

11:40 – 12:05 p.m. **T20: Mechanism of ATP-Dependent acetone carboxylase**
Brian J. Eilers, Montana State University

12:05 – 12:10 p.m.: **Closing remarks**
ChulHee Kang, Washington State University

CUE Atrium:

12:10 p.m.: *Boxed lunch and departure*