

10th Annual CBSD CoBRE Research Symposium

The 10th Annual CBSD Center of Biomedical Research Excellence (CoBRE) Research Symposium will be hosted at the Double Arrow Lodge in Seeley Lake, MT, Sept. 17-19, 2021. The annual research symposium provides us an opportunity to come together as a research community to discuss the latest research in our laboratories supported by the CBSD CoBRE. The symposium will include lectures by Project Leaders who were supported by the CBSD NIH CoBRE grant and a selection of elevator talks by graduate students in advance of the poster sessions. We encourage both graduate and undergraduate students to participate in poster sessions. There will also be presentations from our Computational, X-ray, Mass Spectrometry and BioSpectroscopy Core Facilities so attendees can learn more about how these facilities could take their research projects in new directions.

Friday, Sept. 17, 2021

12:00 p.m. Check into hotel (the front desk is located in the Main Lodge), register, set up poster in Pavilion (if you are in the Friday poster session), grab a box lunch and settle in.

1:30 - 3:00 p.m. OPEN SESSION (Blackfoot Conference Center):

The last 5 minutes of each talk is reserved for questions.

1:30 – 2:00 p.m. CBSD Director Bruce Bowler, *CBSD*

Looking back and looking ahead

2:00 – 2:30 p.m. MSU multiphoton resource talk, Misha Drobizhev

Resource for Multiphoton Characterization of Genetically-Encoded Probes

2:30 – 3:00 p.m. CBSD Start Up Funded Investigator, Patrick Secor

Bacterial lysis releases a soluble danger signal that protects against bacteriophage infection

3:00 - 3:15 p.m. Session break for informal discussion (Blackfoot Conference Center and environs)

3:15 - 3:40 p.m. OPEN SESSION (Blackfoot Conference Center): Poster "Elevator" Talks

Questions will be reserved for the poster session.

3:15 – 3:20 p.m. Mary Ellenbecker, Post-Doc Fellow, Division of Biological Sciences

DLC-1 promotes germ granule integrity in C. elegans embryo

3:20 – 3:25 p.m. Eric John, Graduate Student, Chemistry

Synthetic Anion Transporters Utilizing Hydrogen Bond Enhanced Halogen Bonds.

3:25 – 3:30 p.m. Mike Rothfuss, Graduate Student, Biochemistry and Biophysics

High accuracy achieved predicting stabilizing surface mutations in UBA(1).

3:30 – 3:35 p.m. Emily Osterli, Research Assistant, Pharmaceutical Sciences

COP9 signalosome component CSN-5 promotes accumulation and function of stem cell regulators FBF-1 and FBF-2

3:35 – 3:40 p.m. James Bosco, Graduate Student, Chemistry & Biochemistry

GLH Protein at the Heart of P Granule Network

3:40 - 4:00 p.m. Poster Session Participant set up if didn't occur earlier and break time.

4:00 - 6:00 p.m. OPEN SESSION: Poster Session & Refreshments (Pavilion)
Posters will be on "Slack." Join the conversation here:

James Bosco	GLH Protein at the Heart of P Granule Network
Mary Ellenbecker	DLC-1 promotes germ granule integrity in <i>C. elegans</i> embryo
Dominic Faith	A Filamentous Bacteriophage Protein Inhibits Type IV Pili to Prevent Superinfection of <i>Pseudomonas aeruginosa</i>
Eric John	Synthetic Anion Transporters Utilizing Hydrogen Bond Enhanced Halogen Bonds
Allison Kelly	Design and Synthesis of Triazole Trehalose Tuberculosis Vaccine Adjuvants
Emily Osterli	COP9 signalosome component CSN-5 promotes accumulation and function of stem cell regulators FBF-1 and FBF-2
Mariah Rayl	Molecular Dynamics Simulations Reveal Ligand Dependent Variation in PPAR γ -Coregulator Interactions
Mike Rothfuss	High accuracy achieved predicting stabilizing surface mutations in UBA(1)
Misha Drobizhev	Resource for Multiphoton Characterization of Genetically-Encoded Probes

6:15 p.m. Dinner (Pavilion)

~8:00 p.m. Campfire (fire restriction dependent)

9:30 p.m. Friday Poster pick up deadline

Saturday, Sept. 18, 2021

7:00 - 9:00 a.m. Breakfast (Great Hall, Main Lodge)

9:00 - 10:30 a.m. OPEN SESSION Junior Investigator talks (Blackfoot Conference Center)
The last 5 minutes of each talk is reserved for questions.

9:00 – 9:30 a.m. Monica Serban, *Can You Hear Me Now?*

9:30 – 10:00 a.m. Beverly Piggott, *Defining the pH landscape of brain development*

10:00 – 10:30 a.m. Travis Hughes, *A new paradigm of nuclear receptor activation*

10:30 a.m. Refreshments and informal discussions (Blackfoot Conference Center and Environs) followed by break

11:00 – 11:45 a.m. PRIVATE SESSION EAC meetings with Junior Investigators
Beverly Piggott with Suzanne Scarlata and Deborah Wuttke
Travis Hughes with David Case (virtual)
Monica Serban with Betsy Goldsmith

12:00 - 1:30 p.m. Open Lunch (Pavilion)

**** 12:00 - 1:30 p.m. PRIVATE LUNCH** (Hilltop Lodge)

UM Vice President for Research & Creative Scholarship Scott Whittenburg

EAC: Suzanne Scarlata, Elizabeth Goldsmith, Deborah Wuttke and David Case (virtual)

IAC: Kasper Hansen, Bruce Bowler, Ekaterina Voronina, Klara Briknarova and Stephen Sprang

1:30 - 2:30 p.m. OPEN SESSION (Blackfoot Conference Center): Core Facility Presentations
Questions are reserved for the Q&A at the end of the second session.

1:30 - 1:45 p.m. Steve Sprang, CBSD Associate Director, Core Financial Overview
1:45 – 2:00 p.m. Levi McClelland, ISBC Core Manager
2:00 – 2:15 p.m. Sandy Ross, BCRL Director (virtual) and
Matt Sydor, Interim Core Manager (virtual)
2:15 – 2:30 p.m. Dave Holley, MCCF Manager (virtual)

2:30 - 2:45 p.m. Session break for informal discussion (Blackfoot Conference Center and environs)

2:45 - 3:30 p.m. OPEN SESSION (Blackfoot Conference Center): Core Facility Presentations

2:45 - 3:00 p.m. Eric John, SMXDC
3:00 – 3:10 p.m. Miyuki Hayashi, MSCF Graduate Core Fellow
3:10 – 3:30 p.m. Core Q&A

3:30 - 4:00 p.m. Poster Session Participant set up if didn't occur earlier and break time.

3:30 p.m. - 4:00 p.m. PRIVATE SESSION Core Facility Directors and Managers with EAC

- MSCF Deborah Wuttke
- ISBC Betsy Goldsmith
- MCCF David Case
- BCRL Suzanne Scarlata

4:00 - 6:00 p.m. OPEN SESSION: Poster Session & Refreshments (Pavilion)

Posters will be on "Slack." Join the conversation here:

Carly Anderson	Modulation of dendritic spine density in CA1 hippocampal neurons by GluN3A-containing NMDA receptors
Jasper Aquino	Methoxyamino and 2-aminopyridyl functionalized scaffold as a tool for systematic investigation of β -glucan binding and Dectin-1 activation
Elizabeth Arrigali	Novel Topical Therapeutics Against Hearing Loss
Sofia deMare	Cryo-EM studies of fibronectin for structural determination
Ariel Frederick	Effect on Intrinsic Peroxidase Activity of Substituting Coevolved Residues from omega-loop C of Human Cytochrome c into Yeast Iso-1-Cytochrome c
James Lotti	Teasing apart Binding Affinity and efficacy for NMDA receptor ligands
Michelle Nemetchek	Distinct coactivator structural classes reveal a new paradigm of nuclear receptor activation
Precious Ann Nepomuceno	Effect on Intrinsic Peroxidase Activity of Substituting Coevolved Residues from omega-loop C of Human Cytochrome c into Yeast Iso-1-Cytochrome c
Elizabeth Sather	Biased Agonism in Farnesoid X Receptor
Luke White	Innate immune protein R1OK3 is regulated at the splicing level by TRA2-B during Rift Valley fever virus infection

6:00 p.m. Keynote Dinner (Pavilion)

7:00 p.m. Keynote Talk (Pavilion)

Keynote Speaker: Steve Sprang, Associate Director of the Center for Biomolecular Structure and Dynamics (CBSD), University of Montana.

Title: *How Synembrin talks to a G protein: every method tells a story*

Sunday, Sept. 19, 2021

7:00 - 9:00 a.m. Breakfast (Great Hall, Main Lodge)

8:00 a.m. - 12:00 p.m. Check out (Main Lodge)

9:00 - 10:30 a.m. PRIVATE SESSION (Hilltop Lodge)
EAC s final evaluation meeting to discuss their annual report letter

10:30 am PRIVATE SESSION (Hilltop Lodge)
EAC meet with CBSD Director and Associate Director to discuss their evaluation of progress, annual report and recommendations