

Essentials of Staphylococcal Genetics and Metabolism Workshop
July 14-19, 2024

Sunday July 14

6:00 pm – 9:00 pm Introductory Reception at Max and Joe's Tavern (Crescent Moon) and Opening Remarks.

Monday July 15

8:00 am – 9:00 am CSR trainees will escort attendees to UNMC

Location: DRCI 1004

9:30 am – 12:30 pm NTML and Toolbox-**Ken Bayles**
Design of allelic replacement vectors-**Luke Handke and McKenzie Lehman**
Allelic replacement method-**Luke Handke and McKenzie Lehman**

12:30 pm – 1:30 pm Lunch

Location: Lab DCR II 8052

1:30 pm – 4:30 pm Staphylococcal transduction introduction-**Paul Fey**
Phage propagation and Phage titer – **All instructors**
Single recombination streak – **McKenzie Lehman**

4:30-5:00

5:00 Discussion time with faculty—DRC I 1004

Tuesday July 16

Location: Lab DCR II 8052

9:00 am – 11:30 am Phage transduction – **All instructors**
Allelic exchange: selection of big colonies and dilution plating– **McKenzie Lehman**

11:30 am – 1:00 pm Lunch

1:00 pm – 1:30 pm Group Photo outside DRC II

Location: DRCI 1004

1:30 pm – 2:30 pm Complementation, transcriptional and translational fusion vectors, reporters and other tools—**Luke Handke and McKenzie Lehman**
2:30 pm – 3:30 pm Single-cell transcriptomics – **Lee Korshoj**
3:30 pm – 5:00 pm Open Discussion

Wednesday July 17

Location: DRCI 1004

9:00 am – 12:00 pm Growth and metabolism
A) Central metabolic reactions-**Marat Sadykov**
B) Nitrogen metabolism-**Paul Fey**
C) Pathway architecture and metabolomics-**Vinai Thomas**
D) Growth, medium and aeration-**Group Discussion**

12:00 pm – 1:00 pm Lunch

Location: Lab DCR II 8052

1:00 pm – 1:30 pm Allelic exchange: Patching – **McKenzie Lehman**
1:30 pm – 6:00 pm The impact of growth medium and aeration on central metabolism and subsequent interpretation. Glucose, pH, ammonia, lactate, acetate, nitrate – **All instructors**

Thursday July 18

Location: DRCI 1004

9:00 am – 10:00 am

10:00 am – 11:00 am

11:00 am – 12:00 pm

Restriction modification systems-**Marat Sadykov**

Transduction and allelic exchange interpretation-**Group Discussion**

Open Discussion

FREE AFTERNOON

Friday July 19

Location: DRCI 1004

9:30 am – 10:30 am

10:30 am – 11:30 am

Bacteriophage of the staphylococci and pathogenicity islands-**Fareha Razvi**

Burden of staphylococcal disease-**Paul Fey**

11:30 am – 1:00 pm

Lunch

Location: Wigton Heritage Center, Wittson Hall 4th floor

1:00 pm – 4:00 pm

Poster Presentation

Refreshments will be served.

4:00 pm

Closing remarks