

THE UNIVERSITY OF OKLAHOMA



Biostatistics, Epidemiology, and Research Design
Key Component Activity

OSCTR Biostatistics, Epidemiology and Research Design Core

WORKSHOP

OVERVIEW OF CURRENT “OMICS” TECHNOLOGIES AND ANALYSIS APPROACHES

Courtney Montgomery, Ph.D.

Director, Center for Biomedical Data Sciences

Director, Sarcoidosis Research Unit

Professor, Genes and Human Disease Research Program

Oklahoma Medical Research Foundation

Wednesday, July 24, 2024

12:00PM – 2:00PM

Location: Hudson College of Public Health (CHB 320) and Virtual
through Zoom.

Box lunches will be provided for the first 25 attendees.

Registration required in advance for this meeting.

**After registration, you will receive a confirmation email containing the zoom link
and information about the workshop materials.**

SCHEDULE: The workshop will be held at July 24th from 12pm to 2pm, 2024. The workshop will be a lecture.

PREREQUISITE: There are no pre-requisite requirements.

DESCRIPTION: The "State of Field" approaches to Transcriptomics, Single Cell Transcriptomics, Spatial Transcriptomics, Proteomics, and Epigenomics with an extensive Q&A to follow.

Course materials can be downloaded or printed for personal use prior to attendance from the following website <https://osctr.ouhsc.edu/short-course>

END of WORKSHOP EVALUATION SURVEY: Please complete the survey at the following link:
<https://bbmc.ouhsc.edu/redcap/surveys/?s=KFRD3NDKKWLD9JME>. You will also receive the link by email after the workshop.

REGISTRATION: Registration is required by July 23rd at 6pm. Registration can be completed by clicking the hyperlink in the first page or at the following website <https://bbmc.ouhsc.edu/redcap/surveys/?s=AALHEJ9W9938J8FC>

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PARKING: The College of Public Health Building is located on the corner of 13th Street and Phillips Avenue. Parking is available on the north side of the building. If you are driving north on Phillips Ave, you will see a sign for Lot A on the east side of the street. Pull into this lot. You will need to press the emergency button on the speaker box and indicate that you are attending a workshop in the College of Public Health Building for the parking gate to be raised.

FACULTY BIOGRAPHICAL SUMMARY: Dr. Montgomery is the Director of the OMRF Center for Biomedical Data Sciences (CBDS), and a Professor in the Genes and Human Disease Research Program at the Oklahoma Medical Research Foundation (OMRF). She is also the Co-Director the OK INBRE and an Adjunct Professor in the Department of Biostatistics and Epidemiology in the College of Public Health and the School of Computer Science at the University of Oklahoma. She has been engaged in complex disease research for >20 years with a strong focus on "big data" and translational research, particularly genetics and genomics. As an early-stage investigator at Case Western Reserve she worked on the development, refinement, and application of methodology for statistical analysis of genetic data with a special emphasis on modeling

methods for highly correlated data and the implementation of these methods into the SAGE software suite as the Assistant Director of the NIH sponsored Human Genetic Analysis Resource. Since then, she has directed Bioinformatics and Data Analysis Cores for both a Center of Biomedical Research Excellence (COBRE), a Center for Research Translation, and the OMRF Quantitative Analysis Core for over 10 years. She also leads her own laboratory focused on the immunogenetics of sarcoidosis, particularly in African American patients and, as such, serves as Director of the OMRF Sarcoidosis Research Unit (SRU). Her collaborative work centers on the application of the data sciences to clinical and biological data.