**University of Washington Department of Biostatistics**

**2023 Summer Institute in Statistics for Clinical & Epidemiological Research**

**Module 5: Evaluation of Biomarkers and Risk Models**

**Kathleen Kerr, SISCER Director and Module 5 Instructor**

Times listed are PDT (Seattle time; GMT-7). We will take two 15-minute breaks each day. Except for the daily start and end times, *all times are approximate.*

**Thursday, July 13th, 2023**

8:30-8:45am Introductions

8:45-9:45am Part I: Foundational Concepts; ROC curves; describe illustrative datasets

9:45-10am break

10:00-11:00am Part II: Risk Model Calibration and Discrimination

11:00-11:15am break

11:15-Noon Part II, continued: Decision Curve Analysis;

Biomarkers for prognostic enrichment

**Friday, July 14th, 2023**

8:30-9:30am Part III: Comparing risk models

9:30-9:45am break

9:45-10:45am Part IV: Combining biomarkers and developing risk models

10:45-11:00am break

11:00am-Noon Part V: Target performance for early phase biomarker research

Part VI: Prognostic vs. Predictive biomarkers

1. Sessions will be recorded and shared with module registrants. You will be recorded if you ask a question or join the discussion. Recordings will be available for viewing by module registrants until October 1, 2023.
2. Zoom polls are anonymous.
3. Please mute your microphone unless you are speaking. However, feel free to interject with questions during the presentation. Questions posted into the chat may not receive a timely response.
4. Please sign into the Zoom session using the name used for registration, as access is restricted to module registrants.
5. Course materials and session link are posted on the SISCER Module 5 page (access for module registrants only).
6. A Slack channel for Module 5 in the SISCER Slack workspace is available for discussion and questions outside of live lectures. Recording links will be shared via the module Slack channel.
7. Time permitting, there will be a brief *R* demo, likely at the end of day 2. If you would like to work along, please have *R* packages installed in advance: ggplot2, devtools, purr, rmda, Hmisc, rms, BioPET, pROC, gridExtra.
8. After the module, please provide feedback using the module evaluation through your Summer Institutes account. I appreciate your comments and ideas! After you complete the evaluation, you will be able to download a certificate of completion for this module.