BIOSTATISTICS AND BIOINFORMATICS SHARED SERVICE

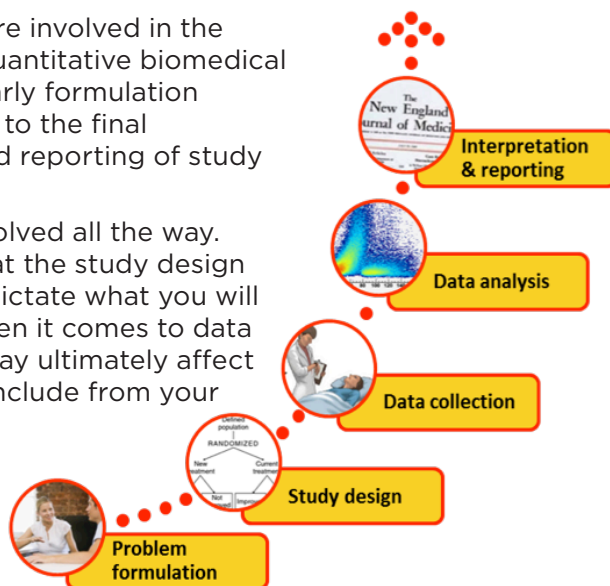## CIBR: Center for Innovative Biomedical Resources

Faculty and staff of the Biostatisctics and Bioinformatics Shared Service have expertise in many fields of 'traditional' biostatistics, including study/trial design and multivariable statistical modeling, but also in bioinformatics, high-dimensionality data sets, machine learning, supervised and unsupervised data analysis, mathematical modeling, simulations and much more! We perform statistical programming as needed. Major statistical software available includes SAS, R, Splus, SPSS, Stata, StatXact and PASS. We also develop customized computer programs for complex statistical problems.

HOW CAN WE HELP?

Biostatisticians are involved in the whole chain of quantitative biomedical research: from early formulation of research aims, to the final interpretation and reporting of study outcomes.

We like to be involved all the way. Decisions made at the study design stage will often dictate what you will be able to do when it comes to data analysis — and may ultimately affect what you can conclude from your study.

MISSION

Quantitative biomedical research is a team sport. The biostatistician brings a strong foundation in statistics, mathematics and computational methods, augmented by knowledge of the field of application and familiarity with biomedical concepts and terminology.

CORE SERVICES

We collaborate on all aspects of design, analysis, interpretation, and reporting of quantitative biomedical research, see left.
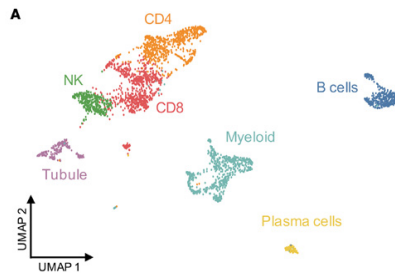
A FEW PRACTICAL NOTES

- Services are by appointment only; however, we do offer free office hours for quick questions (10-20 minutes on Tuesdays at Noon.

- We will try to link you up with a biostatistician who has domain expertise and/or relevant methodology expertise AND available time.

- It takes time to set up an appointment, to provide advice and to act on the advice — last-minute consultations may not produce optimal service and are discouraged.

- We do not provide individual tutoring as a substitute for proper biostatistics education (e.g., as part of a degree program).

- For input to a grant proposal and for significant input to a research project or a data analysis, the biostatistician should be included as a co-investigator.

UNIVERSITY *of* MARYLAND
SCHOOL *of* MEDICINE

CENTER FOR INNOVATIVE BIOMEDICAL RESOURCES (CIBR)
medschool.umaryland.edu/CIBR

RESEARCH

Example 1. Uniform Manifold Approximation and projection (UMAP) plot of single-cell RNA-Seq of 24 renal biopsies of patients with active lupus nephritis. JCI Insight. 2020; 5(12): e138345.

Example 2. Prevalence Ratio (with 95% confidence interval) of Low-Risk and High-Risk HPV infection stratified by HIV status in men who have sex with men engaged in anal cancer screening in Abuja, Nigeria. Papillomavirus Res. 2020 Dec;10:100200. doi: 10.1016/j.pvr.2020.100200.

Example 3. Overall survival in 13,756 head and neck cancer survivors stratified by race with 27,512 matched-population controls from the SEER-Medicare linked database. Oncologist. 2021 Jul;26(7):579-587.

CONTACT

Appointments and Information
Susan Holt
Office Manager
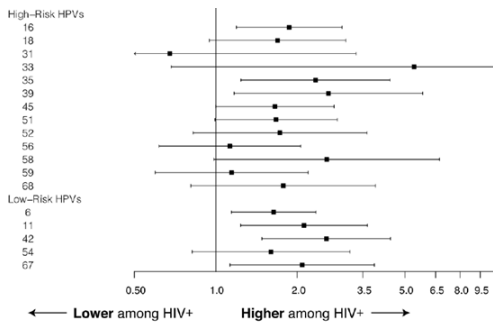sholt@som.umaryland.edu
410-706-8505
Fax: 410-706-8548

Søren M. Bentzen, MSc, PhD, DMSc
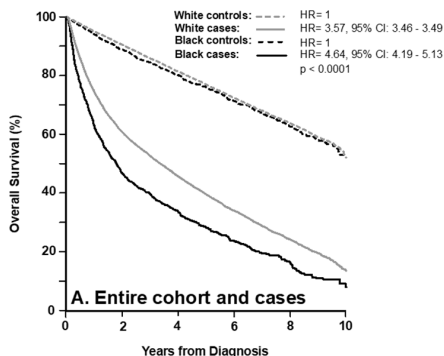Director
sbentzen@som.umaryland.edu

LOCATION

Department of Epidemiology and Public Health
Division of Biostatistics and Bioinformatics
660 W. Redwood Street, HH109
Baltimore, MD 21201

Web Address
http://medschool.umaryland.edu/CIBR/biostats