## TIMOTHY A. JOHNSON MEDICAL SCHOLAR LECTURE SERIES

Presented by the Fralin Biomedical Research Institute at VTC and the Virginia Tech Carilion School of Medicine



## WILLIAM E. KRAUS, M.D.

Johnson Distinguished Professor of Cardiovascular Genomics Duke University

## Drug Repurposing to Mimic the Effects of Exercise Training for Targeted Health Effects

The health benefits of exercise training are substantial; however, how these effects are mediated are poorly appreciated to date. Although much is known about the molecular mechanistic responses to acute exercise, little is known about the chronic molecular mechanistic effects of exercise training mediating the maintenance of exercise-mediated health benefits. We are gaining greater understanding of upstream pathway effects on epigenetic mechanisms and understanding of detraining effects, dose-response effects, and the effects of different exercise modalities separately and in combination. Understanding the mechanisms whereby exercise training mediates its effects will have two major benefits. It will promote an understanding of methods for tailoring exercise training programs to an individual's specific clinical needs—promoting personalized lifestyle medicine. Also, it will provide critical information for the development of new or repurposed therapeutics for the myriad of health conditions exercise treats so well.

## TUESDAY, FEB. 25, at 5:30 p.m.

Room M203, 2 Riverside Circle. Watch via Zoom at <u>https://fralinbiomed.info/MedScholar-Join.</u>

