Laurie Goodyear is an internationally recognized Investigator at the Joslin Diabetes Center and Professor of Medicine at Harvard Medical School. At Joslin she serves as Co-Head of the Section on Integrative Physiology and Metabolism and the Director of the NIH-funded Diabetes Research Center Animal Physiology Core. The long-standing goal of the Goodyear laboratory is to elucidate the molecular basis for the benefits of exercise on health. Her group has been at the forefront of basic and translational research aimed at determining mechanisms for many of these important effects of exercise, publishing over 200 primary papers and reviews, investigating both rodent models and human subjects. They have extensive experience in exercise physiology, tissue physiology, intracellular signaling mechanisms and in vivo metabolism in mice and humans. In addition to many important mechanistic studies on the effects of exercise on skeletal muscle metabolism, recently, her laboratory has also discovered that exercise has other health benefits that were previously unrecognized.

Dr. Goodyear’s work has shown that maternal exercise can impact the metabolic health of her offspring, even as the offspring themselves become adults. This new and exciting finding has potential major ramifications for human health, and the role of intergenerational factors in predispositions to diabetes and obesity. Another exciting and novel area of research in her laboratory has been the identification of novel myokines and adipokines that play an important role in metabolic responses to exercise, and the role of adipose tissue in training-induced increases in glucose homeostasis. Additionally, her lab has shown that exercise training causes adaptations to subcutaneous white adipose tissue that result in secretion of adipokines that in turn function in a paracrine or endocrine manner to improve whole body and skeletal muscle glucose homeostasis.