vivid Wednesday

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GRK2576 Guest lecture

Title: **Ending the Transmission of Metabolic Disease to the Next Generation: How Maternal Exercise Improves the Metabolic Health of Offspring**

Speaker: **Laurie Goodyear, PhD**

Senior Investigator, Professor of Medicine, Harvard Medical School
Joslin Diabetes Center, Boston

Date: **16. June 2021**
Time: **14:00 h CET**
Location: **virtual - Cisco Webex**
(https://hhu.webex.com/hhu-en/j.php?MTID=mf90bd3bbb1c04d5bc60bb9bfff6679a3)
Meeting number (access code): 121 490 0739
Meeting password: mgXe3ZKgk36

Biography

Dr. Laurie J. Goodyear is a Senior Investigator and Co-Head of the Section on Integrative Physiology and Metabolism at the Joslin Diabetes Center and a Professor of Medicine at Harvard Medical School. She is a graduate of Springfield College and the University of South Carolina, and obtained her Ph.D. degree in Cell Biology from the University of Vermont. Dr. Goodyear has been the recipient of several awards including the 2019 Max Miller Award from the Central Society for Clinical & Translational Research, the 2019 Frank W. Booth Award from the University of Missouri, and the 2012 Edward F. Adolph Distinguished Lectureship of the American Physiological Society. The long-standing goal of the Goodyear laboratory is to elucidate the molecular basis for the benefits of exercise on health. Physical activity plays an essential role in the maintenance of human health, and in people with diabetes the importance of exercise is even more magnified. Regular exercise can improve glycemic control, increase insulin sensitivity, improve lipid profiles, and reduce rates of cardiovascular disease, some forms of cancer, Alzheimer's disease and other complications. Dr. Goodyear's group has published over 200 primary papers and reviews and she has mentored approximately 100 post-doctoral fellows, graduate and undergraduate students. Currently NIH-funded research areas include: 1) Maternal and paternal exercise effects to improve metabolic health of offspring, including studies of epigenetic regulation and molecular signaling networks in offspring tissues; 2) Adipose tissue as a critical mediator of exercise training-induced improvements in glucose tolerance and metabolism; 3) Identification and characterization of exercise-induced circulating factors that may be targets for novel therapies; and 4) Investigator in the Molecular Transducers of Physical Activity in Humans Consortium (MoTrPAC).

Key papers

Stanford KI, Lynes MD, Takahashi H, …, **Goodyear LJ**. 12,13-diHOME: An exercise-induced lipokine that increases skeletal muscle fatty acid uptake. Cell Metabolism. 2018; 27(5): 1111-1120. PMCID: PMC5935136

Takahashi H, Alves CRR, Stanford KI, …, **Goodyear LJ**. TGF-β2 is an exercise-induced adipokine that regulates glucose and fatty acid metabolism. Nature Metabolism. 2019; Feb 1. 291–303. PMCID: PMC6481955

Kusuyama J, Alves-Wagner AB, Conlin RH, …, **Goodyear LJ**. Placental superoxide dismutase 3 mediates benefits of maternal exercise on offspring health. Cell Metabolism. 2021 Mar 19:S1550-4131(21)00111-X. doi: 10.1016/j.cmet.2021.03.004. Epub ahead of print. PMID: 33770509.

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