SFD

SLOVENSKO FIZIOLOŠKO DRUŠTVO

VABILO

Slovensko fiziološko društvo vljudno vabi na predavanje z naslovom

»Muscle metabolism during exercise and regulation of insulin sensitivity.«

Predaval bo

Prof. Dr. Jørgen Jensen

v torek, 12. 09. 2017 ob 13:30 uri v veliki vajalnici PAFI, Zaloška 4 v Ljubljani.

Predavanje bo v angleškem jeziku.

Summary:

Skeletal muscle is the specialised tissue that converts chemical energy to movement (mechanical work). However, skeletal muscle also dispose the majority of glucose from the blood during insulin stimulation and store the majority of carbohydrate (glycogen) in the human body. Skeletal muscle stores ~ 500 g glycogen whereas the liver stores ~ 100 g glycogen. Movement is energetically costly and exercise increases metabolic rates dramatically when intensity is high. Muscle glycogen is the major energy substrate during high intensity exercise (oxygen uptake above 70 % of maximal oxygen uptake) and glycogen synthesis after exercise is elevated. The glycogen stores in skeletal muscles are limited and the humans must convert glucose to fat (de novo lipogenesis) when the glycogen stores are filled. Exercise increases insulin sensitivity and reduces the risk for developing type diabetes. Reduced glycogen stores in skeletal muscles after exercise contribute to the higher capacity to store glucose during insulin stimulation. Recently, AMP-activated protein kinase (AMPK) has been shown to be required to increase insulin sensitivity after exercise. The seminar will discuss carbohydrate metabolism during and after exercise, as well as the molecular mechanisms for elevated insulin sensitivity after exercise.

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V Ljubljani, 07. 08. 2017