NUS National University of Singapore | Department of Pharmacy Faculty of Science

RESEARCH SEMINAR

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MON
14
JAN
5 pm
S4A L3
Room
A&B

Sense and Sensibility of Carbohydrates

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Hosted by Assoc. Prof. Victor Yu

Abstract

Glucose is not only the main source for energy, but also a precursor for the synthesis of many biomolecules. On entering glycolysis, glucose is converted in three steps to fructose-1,6-bisphosphate (FBP), which is then split into triose phosphates by FBP aldolases. Glucose deprivation activates AMP-activated protein kinase (AMPK), a sensor known to play a pivotal role in adaptive responses to energy stress, but it had been unclear how glucose deprivation is sensed and signals to activate AMPK and inactivate mTORC1. We have delineated the entire pathway from sensing the shortage of glucose to AMPK activation inside the cell, which will comprise the main body of the talk. In light of the theories on beneficial and detrimental effects of dietary carbohydrates, the seminar will also try to make sense of all the noises on carbohydrates with relation to health.

Biography



Dr. LIN Shengcai graduated from Xiamen University with a bachelor degree in biology in 1980. He obtained his Ph.D. from the University of Texas Southwestern Medical Center at Dallas in 1991. He received his postdoctoral training at HHMI, UC San Diego from 1991 to 95. He then became a principal investigator at IMCB Singapore; He moved to HK University of Science and Technology in 2001, as an assistant professor and later associate professor. Since 2006, he has been a professor at the School of Life Sciences Xiamen University. He served as dean of the School between 2003 and 2017.