



The NO-Age and NO-AD Seminar Series 002

'NAD⁺ augmentation in liver protection and health'

by

Prof. Lili Yang

Department of nutrition, School of Public Health, Sun Yat-sen University, China

at

14:00-15:00, Friday 10th Jan. 2020

Ahus B2: Grupperom B203.007

Akershus University Hospital

Moderator: Prof. Yvonne Böttcher

Organizers:

Evandro F. Fang, Jon Storm-Mathisen

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Speaker: Lili Yang
Title: NR's battle against liver damages

Abstract:

Alcohol or diet induced liver diseases are progressive, normally starting from liver steatosis, then progress to steatohepatitis, fibrosis. In some cases, liver cirrhosis or hepatocellular carcinoma occurs. During liver damages, decreased level of NAD was found, suggesting that augmentation of cellular NAD levels can be protective.

Nicotinamide riboside (NR) is a cellular precursor of NAD. We studied whether NR has protective effects against liver steatosis and liver fibrosis and the underlying mechanisms. We applied both in vivo and in vitro models to test the protective effects of NR and the mechanisms. We found that NR is very effective in boosting NAD in livers, both in hepatocytes and in stellate cells. NR prevented alcohol induced liver steatosis via activating SIRT1-PGC1 α , and increasing mitochondrial biosynthesis and function. While NR also prevented liver fibrosis induced by CCl₄ through deactivating SMADs signaling by deacetylation reactions of SIRT1. Our data indicate that augmentation of NAD by NR is protective to liver damages induced by alcohol or CCl₄.

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Biograph:

Dr. Lili Yang is a professor in Department of Nutrition in School of Public Health of Sun Yat-sen University, China. Her study focuses on how NAD and energy homeostasis are affected by food derived bioactive components, and how these compounds play roles in the prevention of chronic diseases, mainly the formation and progression of liver diseases, including liver steatosis, liver fibrosis and hepatocellular carcinoma.

Dr. Lili Yang earned her Ph.D degree advised by Dr. Henri Brunengraber in Case Western Reserve University in Cleveland, USA in 2006. She continued her postdoc training in Cleveland Clinic for 4 years. Then she worked as instructor in Mount Sinai School of Medicine and Medical center of Cornell University for another 3 years. She started to establish her lab in China in 2013. She has more than 40 published peer-reviewed papers, and her lab is supported by three national funds and three provincial funds.

10 Jan 2020

9:45 am: arrival to the Akershus University Hospital

10:00-11:00: to meet with Prof. Hilde Nilsen

11:00-11:30: with Prof. Yvonne?

11:30-12:30: Chenglong to show Lili the lab etc

12:30-13:30: lunch

13:45: to set up talk

14:00-15:00: talk

15:00-17:00 to meet with students in the Fang group

17:00: heading to dinner +