SELSKABET FOR ERNÆRINGSFORSKNING SfE DANISH NUTRITION SOCIETY

Symposium

How Energy Restriction & Intermittent Fasting can affect Human Health and Longevity

Thursday 22th October 2020 from 16:30 - 18:35

University of Copenhagen

Auditorium A1-01.01 Bülowsvej 17, Frederiksberg

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Program

16:30 - 16:35	**Welcome** Simon R. Schacht, University of Copenhagen, SfE
16.35 - 16:55	**Effects of Weight Loss in People with and without Obesity** Faidon Magkos, Associate Professor, Obesity Research Section, Institute of Nutrition, Exercise and Sports (NEXS), University of Copenhagen
16:55 - 17:05	(Q&A)
17.05 – 17:35	**Calorie Restriction and Longevity** Eric Ravussin, Boyd Professor, Pennington Biomedical Research Center (LSU)
17:35 - 17:45	(Q&A)
17.45 - 18:15	**Impact of Intermittent Fasting on Health, Aging and Disease** Mark Mattson, Professor, National Institute on Aging, John Hopkins University School of Medicine
18:15 - 18:25	(Q&A)
18:25 - 18:35	**Closing remarks** Camilla T. Damsgaard, University of Copenhagen, President, SfE

Participation is free of charge, and all are welcome. It is important that you register, please sign up via: http://www.sfe.dk/kommende-moeder no later than **15th of October 2020.**

Please note that we follow the current governmental guidelines in regard to Covid-19. The event will therefore be limited to a max. of 50 participants. The seat will be allocated on a first-come, first-served basis.

In case we have to cancel the physical meeting due to Covid-19, we will host a virtual meeting via Zoom.

Abstracts

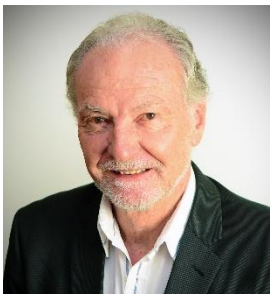
Effects of Weight Loss in People with and without Obesity

Faidon Magkos

Weight loss in patients with overweight and obesity has many beneficial effects on both body composition and metabolism. However, the relationship between the amount of weight loss and the magnitude of the effect varies. Data in non-obese people are scarce, but few studies indicate that mild weight loss in lean individuals decreases body fat and reduces ectopic fat deposition. Dr. Magkos will here discuss how energy reduction in these individuals seem to improve metabolic function, in a largely similar manner to what has been observed in people with obesity.

Calorie Restriction and Longevity

Eric Ravussin



Prolonged calorie restriction has been shown to extend both the median and maximal lifespan in a variety of species spanning from worms to monkeys. The biological mechanisms mediating the lifespan extension are not fully elucidated, but possibly involve alterations in energy metabolism, oxidative damage, insulin sensitivity, inflammation, and functional changes in both the neuroendocrine and sympathetic nervous systems. Dr. Ravussin will review the data on the impact of caloric restriction on biomarkers of aging and lifespan in rodents and his own data in humans. He will also discuss the newly emerging strategies of fasting including alternate-day modified fast and time-restricted feeding to improve metabolic health and potentially physical and cognitive functionality.

Impact of Intermittent Fasting on Health, Aging and Disease

Mark Mattson

Our brains and bodies evolved to function well in environments with intermittent food availability. During fasting, liver glycogen stores are depleted and ketones are produced from adipose- cell-derived fatty acids. This metabolic switch in cellular fuel source is accompanied by cellular and molecular adaptations of organ systems that enhance their functionality and bolster their resistance to stress, injury and disease. Dr. Mattson will present how intermittent metabolic switching, repeating cycles of a metabolic challenge that induces ketosis (fasting and/or exercise) followed by a recovery period (eating, resting and sleeping), may optimize brain and body function and resilience throughout the lifespan, with a focus on the neuronal circuits in the brain.