

# Invited Speaker Abstract

Official Language: English

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## Title of Presentation

How to reset your body clock with plant-based nutrition

### **1. Abstract**

Accumulating evidence suggests that circadian de-synchrony may be an important contributing factor in the development of chronic disease, including obesity, type 2 diabetes, cardiovascular disease and cancer. While our central body clock in the hypothalamus is entrained by the light and dark cycle, the peripheral body clock found in each cell of our body needs to be synchronized with the central clock, mainly through nutritional stimuli. More specifically, this can be achieved through the fasting and feeding cycle, with a plant-based nutrition, and through proper meal frequency and timing. As the insulin action is the most effective in the morning, eating breakfast enables us to use the energy from the meal more efficiently than from the same meal eaten later in the day. While snacks seem to disrupt our body clock, eating 2-3 meals a day, with breakfast being the largest meal, and dinner being the lightest meal of the day, is a great way how to synchronize our body clock. This brings us back to the ancient proverb: Eat breakfast like a king, lunch like a prince, and dinner like a pauper.

### **2. key references**

Sharma A et al. Glucose metabolism during rotational shift-work in healthcare workers. *Diabetologia*. 2017 Aug;60(8):1483-1490. doi: 10.1007/s00125-017-4317-0. Epub 2017 May 27.

Patel SA et al. Calorie restriction regulates circadian clock gene expression through BMAL1 dependent and independent mechanisms. *Sci Rep*. 2016 May 12;6:25970. doi: 10.1038/srep25970.

Patterson RE et al. Intermittent Fasting and Human Metabolic Health. *J Acad Nutr Diet*. 2015 Aug;115(8):1203-12. doi: 10.1016/j.jand.2015.02.018. Epub 2015 Apr 6.

### **3. key messages**

1. Understand the importance of meal frequency, meal timing, and diet composition for resetting the body clock.
2. Educate the patients about the underlying pathophysiology of body clock misalignments in their disease.
3. Enforce dietary changes as no. 1 recommendation in chronic disease.