

The Circadian Clock and Human Health

Sleep impacts metabolism, immune function, memory consolidation, reaction time, decision-making, mental state and eating behaviour. Sleep has been identified as one of the most important determinants for health, and conversely, sleep problems, disturbances and pathologies represent major risk factors for disease. Sleep timing is regulated by the body clock, which is synchronised by light and darkness. This 'entrainment' differs between individuals (chronotypes). We have weakened the signals that set our biological clocks making most of them later. These changes have produced a new syndrome, social jetlag. The direct and indirect costs of sleep-related problems are estimated to approach 2-3% of the gross national product. To understand the mechanisms that link clock, sleep and health, we have to go beyond the laboratory, have to measure these central aspects of human life in the real world (in situ). We have to collect sleep-relevant data world-wide, comparing different geographical locations, different seasons and climates, cultures, and states of industrialisation/electrification and begin to understand some of the factors that are relevant in the triangle clock, sleep and health.

Speaker: **Prof Till Roenneberg**
Vice-Chair, Institute of Medical Psychology
Ludwig Maximilian University of Munich

Host: **Prof David Virshup**
Professor and Programme Director
Cancer and Stem Cell Biology Programme
Duke-NUS Medical School

Date: **Tuesday, 30 April 2019**

Time: **12.00 PM - 1.00 PM**
(Light refreshments will be served at 11.30 AM)

Venue: **Duke-NUS Medical School**
Amphitheatre, Level 2

Contact Person: **Ms Kathleen Chan, Duke-NUS Research Affairs Department**
Email: kathleen.chan@duke-nus.edu.sg

T.R. began to work on biological rhythms with Jürgen Aschoff at the age of 17. He studied Biology at LMU and University College and worked at Harvard. He is head of Human Chronobiology at the Inst. for Med. Psychol. and President of the World Fed. of Chronobiology. He has initiated and directed several large national and international research networks. He has received several international research prizes and has published 196 papers (>13K citations; accum. IF: 890; H-Index: 56) and two books.



** Please be informed that photography and videography may be taken by Duke-NUS authorized personnel during the event for publicity purposes.*