

MAURY STRAUSS DISTINGUISHED PUBLIC LECTURE

Presented by the Fralin Biomedical Research Institute at VTC



MICHAEL YOUNG, Ph.D.

Nobel Laureate in Physiology or Medicine (2017);

The Richard and Jeanne Fisher Professor;
Vice President for Academic Affairs
The Rockefeller University

Genes Regulating Sleep and Circadian Rhythms

Young and his team have identified genes that control the circadian rhythms of *Drosophila*. Interactions among these genes and their proteins set up a network of oscillations within single cells. These oscillations are autonomously generated, are found in most tissues, and establish rhythms in physiology and behavior. This mechanism is conserved within the animal kingdom: similar "clock" genes regulate patterns of sleep and other rhythms in humans. A common form of human insomnia called Delayed Sleep Phase Disorder (DSPD) is characterized by a persistent and intractable delay in the timing of the major sleep episode. A study of several DSPD subjects allowed us to recognize a specific clock gene variant that affects behavioral, physiological and molecular circadian rhythms of carriers under controlled laboratory conditions. Young's results are consistent with the candidate allele encoding a dominant, hyperactive transcription factor that alters sleep and circadian rhythms by lengthening the period of the circadian clock.

THURSDAY, MARCH. 25, 2021 at 5:30 p.m.

This virtual lecture will be webcast live at fbri.vtc.vt.edu/live-webcast. Attendees can also register through our website to access a Zoom link for this presentation.



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