The Evolution of SLEEP



Did sleep evolve to conserve energy? Even invertebrates show well-defined circadian rhythms including periods of many hours per day in which they are at rest. If rest is prevented they later manifest longer periods of rest making up for what they lost. Sleep might seem maladaptive. Don't mammals need to be constantly alert to predators and danger around them? Being unconscious for long periods would not seem a selective advantage. Yet most animals sleep. It conserves energy while repairing the body, allowing maximal energy while awake. Predators and prey animals develop symbiotic relationships around sleep. What does sleep evolution mean for human health and medicine today? Do people really go insane or die without it? Or is it like a vestigial organ – the appendix of behavior? Can we override the evolution of sleep? Learn to function without sleep? Defeat our evolutionary heritage? The answers may surprise you!

Kingman Strohl M.D.

Kingman Strohl's distinguished career spans 20 years at CWRU and UH Case Medical Center where he is chief of pulmonary, critical care and sleep medicine, and has been a major contributor and collaborator in the

promotion of excellence in clinical training in pulmonary and sleep medicine. Dr. Strohl's most prominent recognition comes through his research, publications and presentations on sleep apnea for which he is internationally renowned. His achievements include editing journals and publications, designing data analysis software and participating in national task forces on sleep apnea, sleepiness, and driving risk. He is involved in research on the genetics of respiratory control, pharmacologic modification of central apneas, the effect of early life on brain development, and sleep education.

Sept 11, 2013, 4pm Schmitt Auditorium

(off Hovorka Atrium, Pytte Science Center, Adelbert Rd, across from Rainbow Babies Hospital)

Institute for the Science of Origins Info: call/text Patricia, 440-478-5292 Evolutionary Medicine Lecture Series <u>www.case.edu/origins</u>