

Mahesh Thakkar

**University of Missouri researcher
Dr. Mahesh Thakkar is working
for a good night's sleep.**

By investigating the neurobiological and behavioral factors controlling the sleep-wake cycle, Thakkar is helping lay groundwork to develop treatments for sleep disorders such as sleep apnea and insomnia. Thakkar uses molecular/biochemical, electrophysiological and behavioral approaches to study the circadian system, responsible for regulating numerous rhythms in the body including sleep.

Working with fellow neurologist Dr. Pradeep Sahota, Thakkar spent more than five years examining the role of sleep in addiction including alcohol addiction. One in five adult Americans uses alcohol as a sleep aid, but the pair's research suggests that such use can cause long-term sleep problems. They discovered that alcohol interferes with the sleep regulatory homeostatic system, causing insomnia and sleep disruptions.

Additionally, Thakkar has investigated histamine, the cause of inflammation in people with allergies, which also plays a role in sleep and wakefulness. After examining rodents with varying levels of the compound, he demonstrated that histamine promotes wakefulness via the basal forebrain regions.

At present, Thakkar is investigating the underlying mechanisms responsible for causing sleep disturbances in patients with post-traumatic stress disorders.

Dr. Mahesh Thakkar is a professor and director of research in the School of Medicine's Department of Neurology with an appointment at the Harry S Truman Memorial Veterans' Hospital.

