

Role of sleep in metabolic homeostasis

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Using a *Drosophila* model we developed for sleep, we have identified genes and tissues that affect sleep amount. We are also starting to get a handle on cellular functions of sleep that may be broadly relevant for the brain, and perhaps even the body. In general, we find that sleep is important for metabolic homeostasis, which includes the clearance of metabolic waste. For instance, we find that sleep regulates autophagy and also endocytosis through glia of the blood brain barrier (BBB). In addition, our work shows that sleep regulates brain lipid metabolism through processes that occur in neurons and glia.