## How scientists want to trick your jet-lagged body into feeling sleepy

Science



You've just flown halfway across the world for an important business meeting, and upon your arrival, it's already late.

You check in to your hotel, but you're restless from the flight and the time change. The sky outside is dark, though back home, it's the middle of the day. Scientists in Japan want to help you adjust to time-zone shifts with something a bit more precise than popping Ambien or guzzling wine.

Researchers at Nagoya University, who study circadian rhythms in mammals, are working on a way for our bodies to regulate the proteins that help us sleep, reports.

Related: Throughout the day, our bodily proteins maintain a tug-of-war-like relationship to keep each other in check. The synthetic molecules the researchers in Japan have developed would accelerate this cycle by targeting certain proteins, causing them to perform their functions sooner than they normally would. Jet-setters aren't the only ones who could benefit from altering their biochemistry. Night-shift workers could also be candidates, as well as people who suffer from sleep disorders. Anyone who experiences irregular sleep patterns is at risk for a variety of health problems, from cardiovascular to mental health conditions. Many existing sleep treatments revolve around tricking the brain into perceiving artificial light and darkness, whereas this new research focuses on resetting our biological clocks, so to speak.

While the new protein-blocking method will require further testing before it's available to the average business traveler, the authors of the study have an even larger vision." We hope we can make further use of synthetic chemistry

to make bioactive molecules that can control the circadian rhythm of animals and gain further insight into the circadian clock mechanism, which will surely contribute to medical applications, food production and advances in clock research," says Takashi Yoshimura, one of the authors of the article, which first appeared in . Related: In Japanese culture, many people take pride in their ability to function without a full night's sleep. Meanwhile, a form of spontaneous napping, or , is common. The country does value shut-eye — inemuri is not stigmatized as a sign of laziness or public humiliation. If it meant you could squeeze in your winks despite an alternative work schedule, would you try experimenting with your body chemistry for the sake of sleep — or your health? Let us know your thoughts on and .