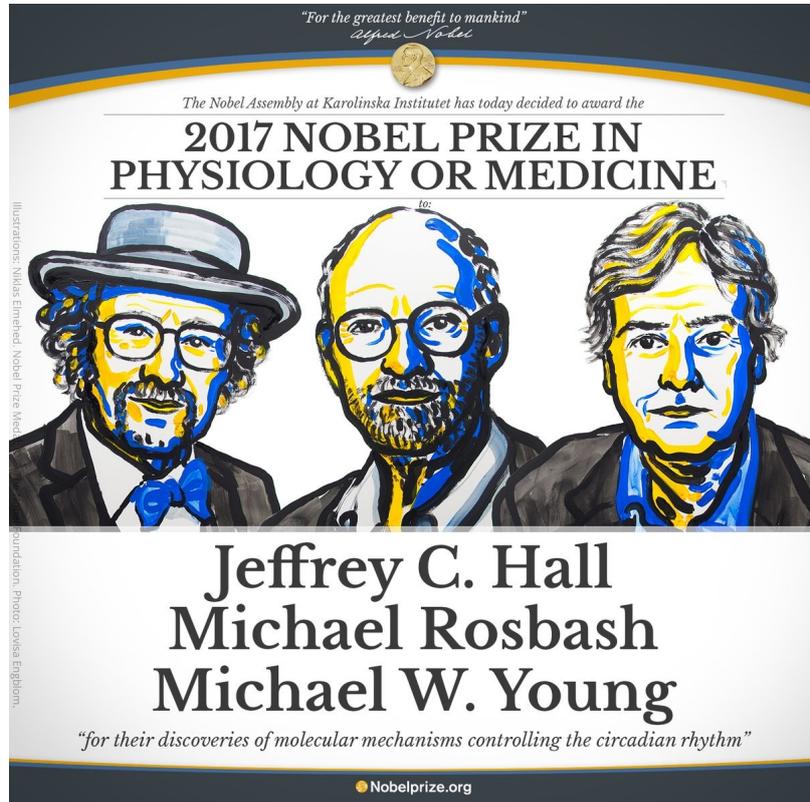


# NOBEL PRIZE FOR THE DISCOVERY OF HOW THE DAILY CIRCADIAN RHYTHM WORKS



In 2014, three Japanese researchers received the Nobel Prize in Physics for inventing a new energy-efficient and environmentally-friendly light source - the blue LED.

This year we are very pleased to see that the three Americans, whose knowledge we support about the importance of the right lighting at the right time for people, will share the Nobel Prize in Medicine 2017.

Their discoveries explain how plants, animals and humans optimize their physiology so that they are well prepared for the various phases of the day. The circadian rhythm (our daily rhythm) controls important functions like sleep, hormone levels, body temperature and metabolism. Man's mood is affected, for example, when the body for several days retains its rhythm from another time zone at jet lag. A well-functioning rhythm is also important for our health.



## LED LIGHTING IMPROVES STUDENTS CIRCADIAN RHYTHMS BY PROVIDING THE RIGHT COLOUR TEMPERATURE AT THE RIGHT TIME



A Norwegian comprehensive school has developed a lighting scheme that aims to help pupils perform better during the school day and relax at night.

The Holla Comprehensive School was officially opened in September 2016 and the lighting solution consists of luminaires with adjustable colour temperatures, so called tuneable white luminaires with LED light sources that can be adjusted from cold white to warm white light in all the classrooms.

In a study conducted by Ingvild West Saxvig of the Norwegian Competence Center for Sleep Disorders at Haukeland University Hospital it was found that 8.4 percent of young people in secondary schools in Norway reported trouble falling asleep before 2am at least three nights a week and had difficulties waking up in the morning. (You can read the full study [here.](#))

'Delayed sleep patterns in adolescents are probably due to a combination of biology and behavior,' commented Saxvig.

'At the onset of puberty, the body's biological clock goes out of synch, causing young people to be sleepy later than previously. In addition, the process of going from childhood to adulthood often involves behaviours that may cause a delay of bed time, such as the use of digital media and electronics in the evenings. Whilst most youngsters will manage to prevent their sleeping patterns from getting too much out of control, some find it impossible.'

Photo & Article Source: [Lux Review](#)

Check out some of our LED lighting case studies that use colour temperature change lighting:

- [Juringe School](#)
- [Tech Farm](#)
- [Brahe Clinic](#)
- [AMF Fastigheter](#)