

To the EU Commission on DST

Chronobiology studies the influence of day-night rhythms and seasonal changes in living organisms (and received the Nobel Prize 2017 for these discoveries). As experts in biological clocks and sleep, we have been following the initiative of the European Commission to abandon the annual clock-time changes in spring and autumn in the EU. We would like to emphasize that the scientific evidence presently available indicates that installing permanent Central European Time (CET, standard time or 'wintertime') is the best option for public health.

With CET there will be more morning light exposure in winter and less evening light exposure in summer. This will better synchronise the biological clock and people will sleep earlier relative to their work and school times (1). The feeling of chronic jetlag (Social Jetlag) will be reduced compared to daylight savings time, the body will function better and mental performance will improve. Throughout the year, CET will be healthier than daylight savings time.

CET improves our sleep (1) and will be healthier for our heart (2) and our weight (3). The incidence of cancer will decrease (4), in addition to reduced alcohol- and tobacco consumption (5). People will be psychologically healthier (6) and performance at school and work will improve (7). Abandoning clock changes will offer the unique nation-wide opportunity to improve general health by installing Central European Time.

We would gladly explain our advice in more detail as required.

Sincerely,

European Biological Rhythms Society (EBRS)

European Sleep Research Society (ESRS)

Society for Research on Biological Rhythms (SRBR)

References

- 1) Kantermann et al. (2007) The human circadian clock's seasonal adjustment is disrupted by daylight saving time. *Current Biology* 17:1996-2000.
- 2) Merikanto et al. (2013) Associations of Chronotype and Sleep With Cardiovascular Diseases and Type 2 Diabetes. *Chronobiol.Int.* 30:470-477.
- 3) Roenneberg et al. (2012) Social Jetlag and Obesity. *Current Biology* 22: 939-943.
- 4) Borisenkov (2011) Latitude of Residence and Position in Time Zone are Predictors of

Cancer Incidence, Cancer Mortality, and Life Expectancy at Birth. *Chronobiol.Int.* 28: 155-162.

5) Wittmann et al (2006) Social jetlag: Misalignment of biological and social time. *Chronobiol. Int.* 23:497-509.

6) Borisenkov et al. (2017) Seven-year survey of sleep timing in Russian children and adolescents: chronic 1-h forward transition of social clock is associated with increased social jetlag and winter pattern of mood seasonality. *Biological Rhythm Research* 48:3-12.,

7) Van der Vinne (2015) Timing of Examinations Affects School Performance Differently in Early and Late Chronotypes. *J. Biol. Rhythms.* 30:53-60.