1. No.
   2020Y013

2. Title
   Sleep-wake phase rhythm and smoking habit in healthy young adults

3. Period
   2020-2021

4. Summary
   In the first year, the participants recorded a self-reported life diary, including sleep and eating behaviors, and sleep was objectively measured for four days; smoker and non-smoker groups were then compared. Four of five smokers and one of five non-smokers were categorized with an evening chronotypes. The weekday sleep duration was significantly shorter in smokers than in non-smokers. All smokers had difficulty initiating sleep and skipped breakfast. In the second year, smokers and evening-type non-smokers were compared to morning/intermediate-type non-smokers. Physiological parameters, including continuous glucose and heart rate, were also evaluated. Results show that skipping breakfast was prevalent among smokers and many evening-type non-smokers. Furthermore, the impact of skipping breakfast on glucose fluctuation was shown as a physiological measurement (maximum glucose level during waking hours was significantly higher among smokers and evening-type non-smokers than among morning/intermediate-type non-smokers).