

# Screening Survey

Welcome! Thank you for your interest in my study.

Before inviting you to our lab, I would like to check if you are eligible to participate: that is what this short survey is for. I will ask you a few questions about your health and sleep.

At the end of the survey, if you are eligible and willing to enrol, you will be asked for information that can identify you (name & email), so we can schedule your first study session. You only decide if you agree to take part in the study or not at that session; consent is not granted just by filling in this survey.

Survey data will be securely stored on the REDCap platform for the duration of the study (Feb - Dec 2023), but you may request the deletion of your data anytime.

Survey completion time: approx. 5 min

What is the study about? Within my PhD project at TU Munich, I am looking into the effects of rapidly flickering light on brain activity during sleep. The goal is to enhance a certain form of brain activity which is impaired in conditions such as Alzheimer's Disease: new research shows that rapidly flickering light can do that. I want to test if applying it during sleep is feasible and effective in young, healthy people. If so, then we can try it on older people at risk for dementia next.

My aim is to help prevent or delay dementia with an intervention that is not invasive, not expensive, and as convenient as possible for patients. That can only happen with the help of people like you!

The experiment involves the following sessions:

A short session on a day of your choice (approx. 1 hour), on which you provide your informed consent and try out the light stimulation while awake. One night at the sleep lab (on a Friday or Saturday), on which only your brain activity is measured, so we can see what your "usual" sleep is like. One more night at the sleep lab (on the following night), on which your brain activity is measured and the light stimulation is activated while you sleep. On the first session, I am happy to provide more details and answer any questions. Participants are reimbursed for their time and are also offered an individualized report of their sleep.

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I have read the information above and consider volunteering for this study.

- ☐ Yes, let's proceed with the questionnaire.  
☐ No, I prefer not to take part.

**Exclusion Criteria You will be asked about some symptoms or disorders you may have experienced. Please answer honestly, so that we can ensure your well-being and safety during the course of this study.**

**If you are not sure whether something you experienced counts as a symptom or disorder, please choose "maybe" and specify it.**

Are you between 18 and 35 years old?

- ☐ Yes  
☐ No

Do you have any difficulty distinguishing between red and green, or between yellow and blue (colour-blindness)?

- ☐ Yes  
☐ No

At any point in your life, have you experienced any of the following:

- ☐ Yes  
☐ Maybe  
☐ No

Uncontrolled shaking movements of your whole body or parts of it, with full or partial loss of consciousness (Epilepsy, Seizures) Pulsating headaches possibly accompanied by nausea, sensitivity to light / sound / smell, visual disturbances (Migraine) Surgery on your brain (e.g., to remove a brain tumor, to perform an implant...) Severe concussion Stroke Other neurological conditions

Please specify:

\_\_\_\_\_

In the past year, have you experienced any of these sleep disturbances? Or has anyone remarked that you do?

- ☐ Yes  
☐ Maybe  
☐ No

Regular difficulty falling or staying asleep (Insomnia) Walking or carrying out complex activities during the night while not fully awake, without remembering them afterward (Sleepwalking) Involuntary habitual grinding of the teeth during sleep (Bruxism) Excessive daytime sleepiness with sudden muscle weakness (Narcolepsy) Unpleasant "creeping" sensation and pain in the lower legs that can be relieved by movement of the legs, such as walking or kicking (Restless Legs Syndrome) Periodically interrupted breathing during sleep that causes gasping or "snorting" noises, more than just snoring (Sleep Apnoea)

Please specify:

\_\_\_\_\_

In the past year, have you experienced any of these psychiatric symptoms?

- ☐ Yes  
☐ Maybe  
☐ No

Depressed mood Extreme mood swings Excessive fears or worries Hallucinations or paranoia Suicidal thoughts Other mental issues

Please specify:

\_\_\_\_\_

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In the past year, have you excessively used any of these substances?

- ☐ Yes
- ☐ Maybe
- ☐ No

Alcohol (drinking more than 5 beers or 10 shots on most weeks) Nicotine (smoking more than 5 cigarettes on most days) Cannabis (consuming on most days / negative consequences in daily life / withdrawal symptoms) Prescription drugs (using in a higher quantity or for a longer time than prescribed by doctors / withdrawal symptoms) Other illicit drugs (consumption of any illicit drug on most months)

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Please specify:

\_\_\_\_\_

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Please double-check: Have you correctly chosen the options that apply to you?

- ☐ Yes

## Your Chronotype Munich ChronoType Questionnaire (μMCTQ)

**The following section will ask you questions in regards to your sleep and wake behaviour on work- and work-free days. Please estimate an average of your 'normal' sleep behaviour over the past 6 weeks.**

I have been a shift- or night-worker in the past three months:

- ☐ Yes  
☐ No

Normally, I work \_\_\_ days / week:

- ☐ 0  
☐ 1  
☐ 2  
☐ 3  
☐ 4  
☐ 5  
☐ 6  
☐ 7

Please answer all the following questions even if you do not work, or work 7 days / week. Use the 24-hour format (e.g., 23:00 instead of 11 PM).

On workdays, I normally fall asleep at:

\_\_\_\_\_  
(This is NOT when you get into bed, but rather when you fall asleep)

On workdays, I normally wake up at:

\_\_\_\_\_  
(This is NOT when you get out of bed, but rather when you wake up)

On work-free days, when I DON'T use an alarm clock, I normally fall asleep at:

\_\_\_\_\_  
(This is NOT when you get into bed, but rather when you fall asleep)

On work-free days, when I DON'T use an alarm clock, I normally wake up at:

\_\_\_\_\_  
(This is NOT when you get out of bed, but rather when you wake up)

On MOST work-free days, do you use an alarm clock?

- ☐ Yes  
☐ No

**Thank you for your answers. Based on the information you provided, we will check if you are eligible to participate.**

**To be enrolled as a participant, please fill in:**

Your full name \_\_\_\_\_

Your age (in years) \_\_\_\_\_

Your gender identity ☐ female  
☐ male  
☐ diverse

Your email \_\_\_\_\_  
((please double-check if it's written correctly!))