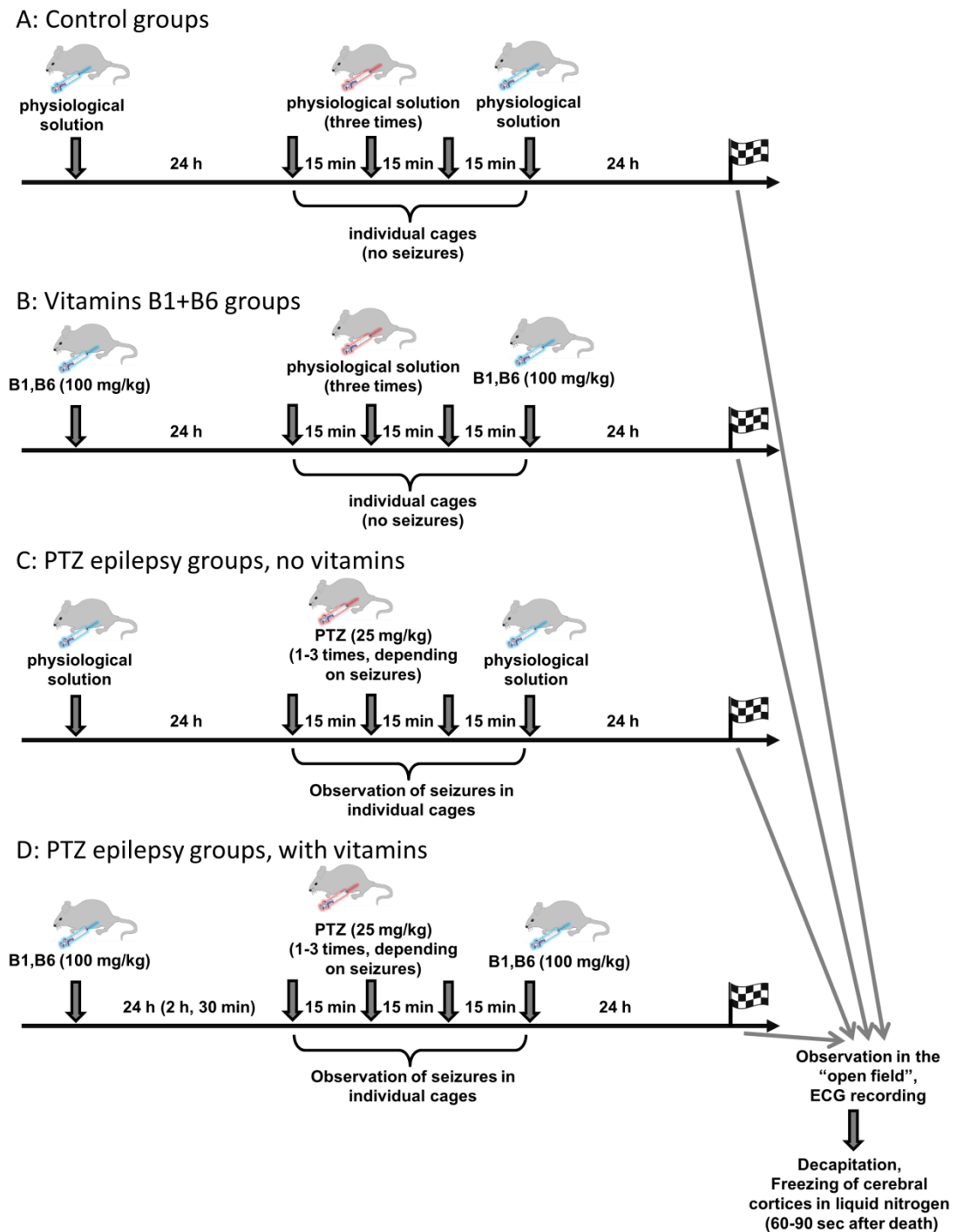


Physiological and biochemical markers of the gender-specific sensitivity to epileptogenic factors, delayed consequences of seizures and their response to vitamins B1 and B6 in a rat model of epilepsy

Vasily A. Aleshin, Anastasia V. Graf, Artem V. Artiukhov, Alexandra I. Boyko, Alexander L. Ksenofontov, Maria V. Maslova, Isabel Nogués, Martino L. di Salvo, Victoria I. Bunik

Supplementary Materials



Supplementary Figure S1. Flowchart of physiological experiments in intact rats (A), rats receiving vitamins B1 and B6 (B), rats receiving PTZ without the vitamins (C), rats receiving PTZ with the vitamins (D). The female and male rats received 100 mg/kg of each of thiamine and pyridoxal intraperitoneally 24 h before the first administration of PTZ. The same experimental design was employed in the study of the time dependence of the

vitamins effects, which was done on the female rats, where the time of the first administration of the vitamins was 24, 2 or 0.5 h before PTZ (**D**). PTZ was administered at a dose of 25 mg/kg, followed by estimation of the severity of a seizure during 15 minutes (**Table 1**). In case of a weak seizure (0-3 score points, **Table 1**), PTZ administration and seizure assessment were repeated up to three times. In total, the PTZ dose didn't exceed 75 mg/kg. After 45 minutes of the seizure observation, vitamins B1 and B6 (100 mg/kg each) were injected once again. After 24 hours, the physiological parameters were assessed using an "open field", the ECG was recorded, and the rats were decapitated. The cerebral cortex was quickly removed and frozen in liquid nitrogen (60-90 sec after decapitation). In the control groups the injections of vitamins and/or PTZ were substituted by injections of equivalent volumes of physiological solution (0.9% NaCl).