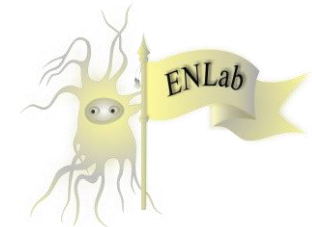
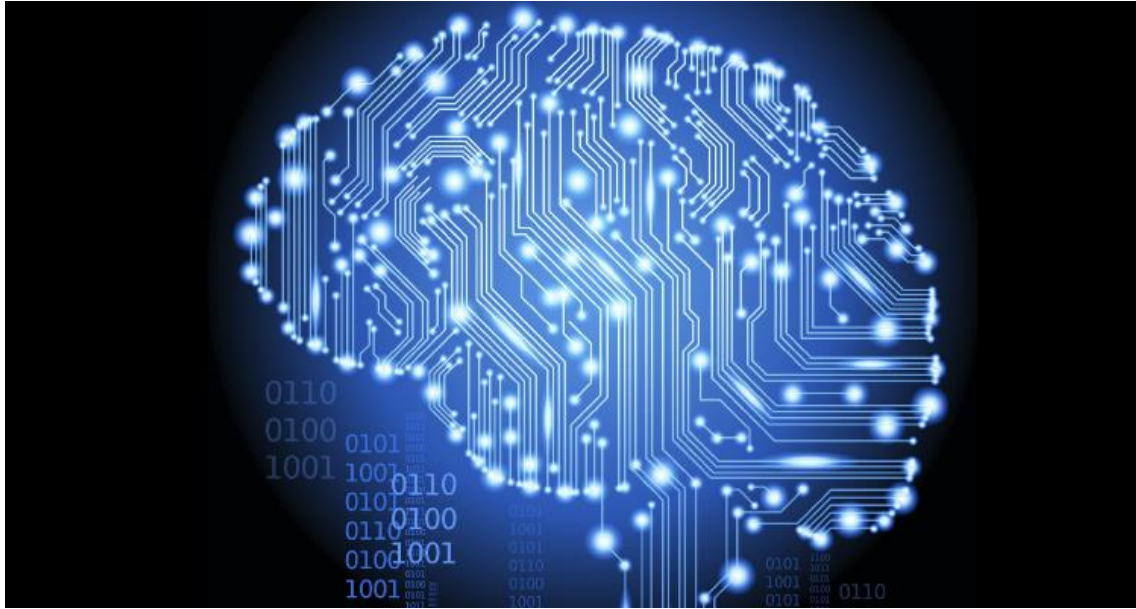


National Pirogov Memorial Medical University, Vinnytsya



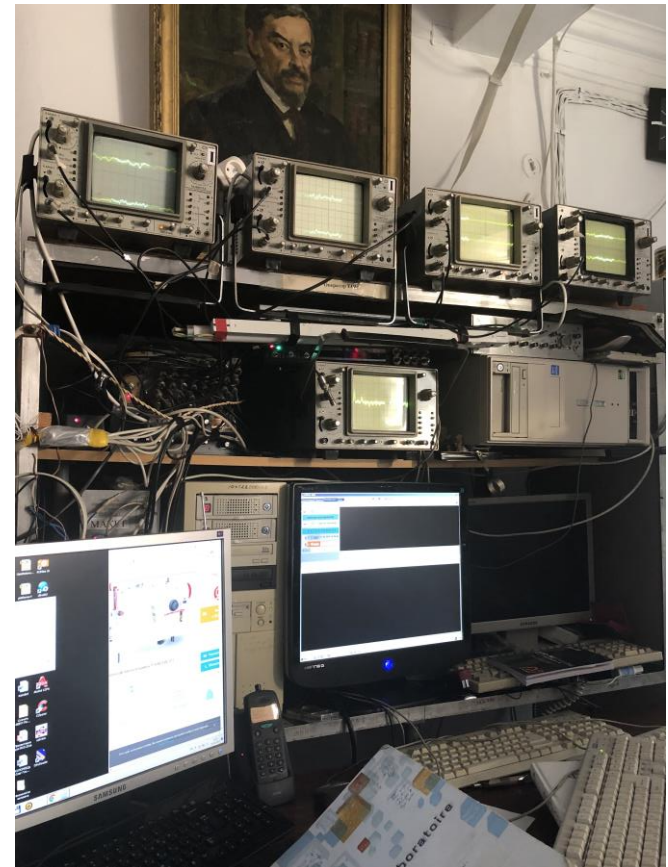
Laboratory of Experimental Neurophysiology

Head of the laboratory: Ihor Rokunets, PhD, MD

Laboratory of Experimental Neurophysiology is a part of the National Pirogov Memorial Medical University and affiliated with the Department of Human Physiology.

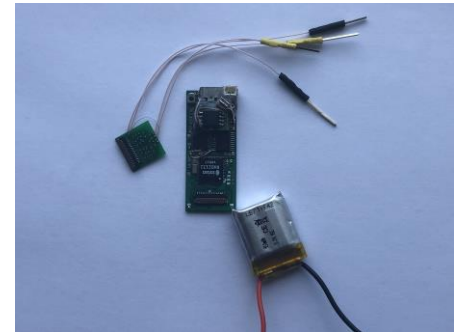
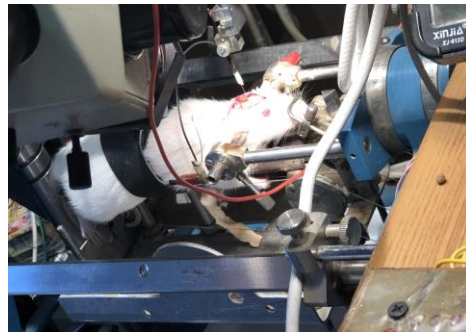
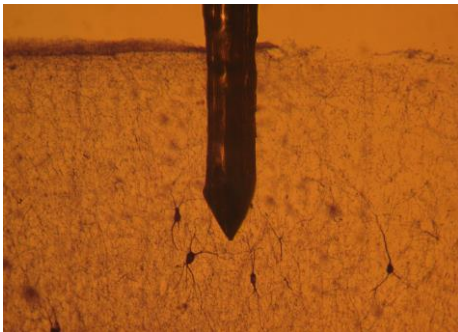
Laboratory of Experimental Neurophysiology
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Pirogov street, 56
Vinnytsya, Ukraine
21000

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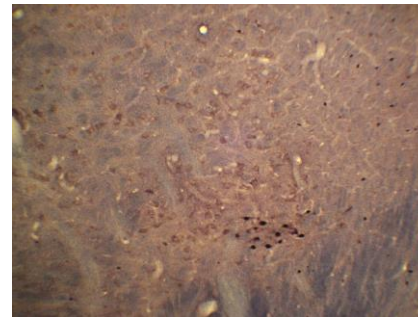
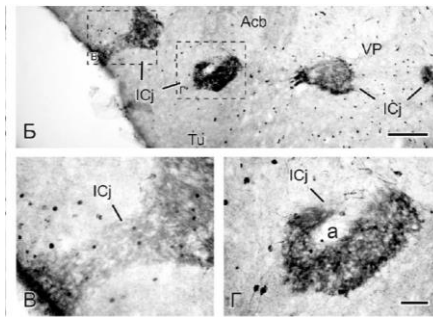
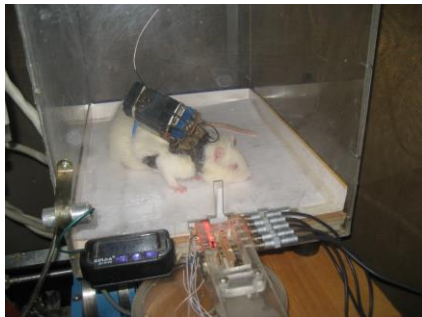
Focus of research:

- Organization of cortical program for operant movements during motor learning
- Neural basis of addiction
- Role of dopaminergic system
- Role of amygdala in the context of food behavior and motor program organization
- Preclinical testing of novel drugs for cardiovascular complications
- Autonomic reflexes during motor learning
- Detectors using pose control for public security and driver safety



Used techniques:

- Multichannel electrophysiology
- Stimulation
- Immunohistochemistry (FOS, NOS)
- EEG
- ECG
- Local potentials recordings from myocardiocytes
- Wireless heart rate monitoring
- Behavioral tests
- Recordings of physiological parameters (pose control) in human



Publications:

- Chaikovska, Olga, et al. "Concept and realization of backpack-type system for multichannel electrophysiology in freely behaving rodents." *Informatyka, Automatyka, Pomiar w Gospodarce i Ochronie Środowiska* 9 (2019).
- Vlasenko, O., et al. "Prevention of Motor Vehicle Crush due to Loss of Conscious Control." *NANO-2019: Limits of Nanoscience and Nanotechnologies*. 2019.
- Vlasenko, O., et al. "Multichannel system for recording myocardial electrical activity." *Information Technology in Medical Diagnostics II: Proceedings of the International Scientific Internet Conference "Computer Graphics and Image Processing" and the XLVIIIth International Scientific and Practical Conference "Application of Lasers in Medicine and Biology", May 2018*. CRC Press, 2019.
- Man'kovskaya, Yelena P., et al. "7-Nitroindazole enhances c-Fos expression in spinal neurons in rats realizing operant movements." *Acta histochemica* 116.8 (2014): 1427-1433.
- Dovgan, Olexandr V., et al. "Food-procuring stereotype movements is accompanied by changes of c-fos gene expression in the amygdala and modulation of heart rate in rats." *International Journal of Physiology and Pathophysiology* 4.2 (2013).