

Curriculum Vitae

Name: Elena É. Saftenku.

Present Position: Senior research scientist at the Department of Molecular Biophysics, Bogomoletz Institute of Physiology, Kyiv, Ukraine.
Mailing address (in Ukraine): Bogomoletz Institute of Physiology. Bogomoletz Str. 4, Kiev, 01024, Ukraine.

Education and Degrees:

1982–1987: T. G. Shevchenko Kiev State University, Biological Faculty, Biophysical Department.
1987: University degree in Biophysics with honors.
1990–1993: Post-graduate course in Control in Biological and Medical Systems at the Glushkov Institute of Cybernetics, Kiev, Ukraine.
1993: PhD (Candidate of Biological Sciences), Glushkov Institute of Cybernetics.
Dissertation: “Investigation of mechanisms of generation and control of neuronal bursting activity by the method of mathematical modeling”.

Positions:

08.1987–10.1990: Engineer and researcher-probationer at the laboratory of Membrane Biophysics at the Research Institute of Physiology, T. G. Shevchenko Kiev State University.
04.1994-03.1995: Scientific Researcher at the Research Centre of Biotechnological Systems

“Sonar”.

04.1995–03.2011: Scientific Researcher at the Department of General Physiology of Nervous System, A. A. Bogomoletz Institute of Physiology
04.2011–06.2017: Senior Scientific Researcher at the Department of General Physiology of Nervous System, A. A. Bogomoletz Institute of Physiology.
Since 06.2017- up to date: Senior Scientific Researcher at the Department of Molecular Biophysics, A. A. Bogomoletz Institute of Physiology.

Overseas Visiting Research Fellowship:

05.1996–11.1996, 08.1997–02.1998: Research Fellow at the National Heart and Lung Institute (London), at the lab. of Prof. Alan Williams. Fellowship “The development of computer models of the control of calcium channels that help to regulate the release of calcium, which causes heart muscle cells to contract” was supported by a grant of British Heart Foundation.

Teaching.

Postgraduate course “Computational Neuroscience” 2017–2020.
VII AACIMP international Summer School (3-16 August, 2012, Kiev) “Achievements and Applications of Contemporary Informatics, Mathematics and Physics”
IBRO Advanced School of Neuroscience, Yalta, 2004

Fields of interest and expertise:

Mathematical modeling of realistic neurons: neuronal excitability, synaptic transmission and plasticity, synaptic integration, diffusion of transmitters, intracellular Ca^{2+} dynamics and calcium handling systems. I have an experience of work in the simulation environments of NEURON, Delphi, Calc (of Victor Matveev), XPP (of Bard Ermentrout), IgorPro, MATLAB, Neuroconstruct, Virtual Cell, Adobe Dreamweaver.

Publications.

Book chapters.

1. Saftenku E.É. Model study of Ca^{2+} handling systems in cerebellar granule cells. In Neurophysiological Essays of Platon Kostynuk and his Students. Eds. Krishtal O.A. and Lukyanetz E.A. Akademiperiodyka, Kyiv, 2020, p. 176–183. **ISBN**: 978-966-360-420-6.