

Program

12th Student Workshop

"Biophysical Methods in Neuroscience"

Kyiv, 18-20 April 2018

Bogomoletz Institute of Physiology NAS of Ukraine

(4 Bogomoletz st., Kiev, Ukraine)

1st day, Wednesday, April 18, 212 audience, admin. bld

9:30 – 10:00 – Registration of participants (room 210 admin. bld)

10:00 – 10:15 - Nana Voitenko, Bogomoletz Institute of Physiology

Opening Ceremony of the Student Workshop.

Greeting to the participants from the Workshop organizers

10:15 – 11:00 – Bizhan Sharopov, Bogomoletz Institute of Physiology.

Electrophysiological methods of research

11:00 – 11:45 – Eugen Sheremet, Bogomoletz Institute of Physiology.

Advanced methods of fluorescence microscopy

11:45 - 12:00 - Coffee Break

12:00 – 12:45 – Nana Voitenko, Bogomoletz Institute of Physiology.

Universal, ubiquitous free calcium - methods of measurement

12:45 – 13:30 - Pavel Belan, Bogomoletz Institute of Physiology.

Optogenetics

13:30 – 14:00 – Lunch

14:15 – 18:15 - Practicum

18:30 – 21:00 - Welcome Party (hall of high rise bld)

2nd Day, Thursday, April 19, 212 audience admin. bld

10:00 – 10:45– Oksana Sulaieva, Ukrainian Research and Practical Centre of Endocrine Surgery

Diagnostic immunohistochemistry: possibilities, limitations, alternatives.

10:45 – 11:30 – Vladimir Medvedev, Bogomoletz National Medical University.

Stem Cell Therapy: Myth or Reality?

11:30 - 11:45 - Coffee Break

11:45 – 12:30 – Yaroslav Shuba, Bogomoletz Institute of Physiology.

Ion channels and cancer: what is the link?

12:30 – 13:15 Kseniya Gulak, Bogomoletz Institute of Physiology.

Introduction to PCR

13:15 – 14:00 - Lunch

14:00 – 18:00 - Practicum

3^d Day, Friday, April 20, 212 audience admin. bld

10:00 – 10:45– Sergey Verevka, Institute of Otolaryngology.

Structurally damaged proteins: the ways of formation, pathophysiological effects and information value

10:45 – 11:30 – Boris Safronov, Institute for Molecular and Cell Biology, Portugal.

Spinal mechanisms of pain processing

11:30 - 11:45 - Coffee Break

11:45 – 12:30 – Victor Dosenko, Bogomoletz Institute of Physiology.

Etiology and pathogenesis of love

12:30 - 13:15 – Oleg Krishtal, Bogomoletz Institute of Physiology.

That we know about consciousness in terms of neuroscience

13:15 – 14:00 - Lunch

14:00 – 14:15 - Photo of participants and teachers of the Workshop

14:15 – 15:00 – Discussion, Summarizing, Diplomas Awarding, (room 214 high rise bld)

15:00 – 18:00 – Quizz&Beer Party

PRACTICUM

The duration of each practice session is 50 minutes (10 minutes break).

lab #	Laboratory name, room #	Teachers
1.	Confocal immunohistochemistry. The study of the properties of stem cells of different origins. 2 floor high rise bld, r. 210	Oksana Rybachuk
2.	Sensory Signaling. Behavioral tests. Optogenetics. 2 floor high rise bld, r. 203	Vova Krotov Diana Shevchuk
3.	"Super Resolution" method 4 floor high rise bld, r. 406	Alexander Tarasenko
4.	Method "Patch-Clamp" and genetic modification of cells. 4 floor high rise bld, r. 1106	Bizhan Sharopov Nataly Shtefan
5.	Fluorescent methods. Calcium Uncaging in Neurons. 4 floor high rise bld, r. 404	Andrey Dromaretskiy
6.	Experimental models of epilepsy and neural plasticity. 4 floor high rise bld, r. 402	Alina Savotchenko
7.	Determination of gene expression by real time PCR analysis. 1 floor admin bld, r. 128	Tatyana Lapikova-Briginskaya
8.	Cardiac catheterization to study parameters of cardiodynamics. 3 floor admin bld, r. 326	Yuliya Goshovska Sergey Goncharov

Participants into groups:

Group number	Участники
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

Schedule labs on April 18, 2018

Lab #	Laboratory name, room #	Teachers	Group number, time			
			14:15	15:15	16:15	17:15
1.	Confocal immunohistochemistry. The study of the properties of stem cells of different origins. 2 floor high rise bld, r. 210	Oksana Rybachuk	1	2	3	4
2.	Sensory Signaling. Behavioral tests. Optogenetics. 2 floor high rise bld, r. 203	Vova Krotov Diana Shevchuk	2	3	4	5
3.	"Super Resolution" method 4 floor high rise bld, r. 406	Alexander Tarasenko	3	4	5	6
4.	Method "Patch-Clamp" and genetic modification of cells. 4 floor high rise bld, r. 1106	Bizhan Sharopov Nataly Shtefan	4	5	6	7
5.	Fluorescent methods. Calcium Uncaging in Neurons. 4 floor high rise bld, r. 404	Andrey Dromaretskiy	5	6	7	8
6.	Experimental models of epilepsy and neural plasticity. 4 floor high rise bld, r. 402	Alina Savotchenko	6	7	8	1
7.	Determination of gene expression by real time PCR analysis. 1 floor admin bld, r. 128	Tatyana Lapikova-Briginskaya	7	8	1	2
8.	Cardiac catheterization to study parameters of cardiodynamics. 3 floor admin bld, r. 326	Yuliya Goshovska Sergey Goncharov	8	1	2	3

Schedule labs on April 19, 2018

L ab #	Laboratory name, room #	Teachers	Group number, time			
			14:00	15:00	16:00	17:00
1.	Confocal immunohistochemistry. The study of the properties of stem cells of different origins. 2 floor high rise bld, r. 210	Oksana Rybachuk	5	6	7	8
2.	Sensory Signaling. Behavioral tests. Optogenetics. 2 floor high rise bld, r. 203	Vova Krotov Diana Shevchuk	6	7	8	1
3.	"Super Resolution" method 4 floor high rise bld, r. 406	Alexander Tarasenko	7	8	1	2
4.	Method "Patch-Clamp" and genetic modification of cells. 4 floor high rise bld, r. 1106	Bizhan Sharopov Nataly Shtefan	8	1	2	3
5.	Fluorescent methods. Calcium Uncaging in Neurons. 4 floor high rise bld, r. 404	Andrey Dromaretskiy	1	2	3	4
6.	Experimental models of epilepsy and neural plasticity. 4 floor high rise bld, r. 402	Alina Savotchenko	2	3	4	5
7.	Determination of gene expression by real time PCR analysis. 1 floor admin bld, r. 128	Tatyana Lapikova- Briginskaya	3	4	5	6
8.	Cardiac catheterization to study parameters of cardiodynamics. 3 floor admin bld, r. 326	Yuliya Goshovska Sergey Goncharov	4	5	6	7