



# CRYO-ELECTRON MICROSCOPY 2017: ACHIEVEMENTS AND PROSPECTS

**MOSCOW JUNE 6-8, 2017** 

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# **ABOUT**

"Cryo-electron microscopy 2017: achievements and prospects" will be held at Lomonosov Moscow State University (MSU) on June 6 - 8, 2017.

The main purpose of this conference is to inform the Russian scientific community of the technical progress attained in structural biology and of the latest achievements in the field of cryo-electron microscopy. This event will become a communication platform between internationally recognized experts and young researchers in the rapidly developing region of cryo-electron microscopy. Leading researchers from Russia, Europe, USA and Japan will take part in this conference; this will undoubtedly have a positive effect on the international reputation of Moscow State University. The conference will have significant impact on further advancement of cryo-EM in Russia and the implementation of the most modern structural methods at MSU; it will also establish fruitful partnerships between researchers in Russia and abroad. Recent advances in deciphering the atomic structure of macromolecules using cryo-electron microscopy and various aspects of sample preparation will be discussed at the conference.

### WORKSHOPS WILL BE HELD ON THE TOPICS OF:

- · Membrane proteins and the methods of studying their structure;
- The structure and functions of the cells transcription apparatus;
- Subnanometer-resolution virus structures;
- Molecular organization of cells and organelles;
- New methods of sample preparation and data processing in cryo-electron microscopy.

### **IMPORTANT DATES:**

Abstract submission ends – 1.05.17 Last day to register online – 1.06.17 Russian Visa invitation letters to be received – 30.04.17

# **CONTACTS:**

# PARTICIPATION AND ORGANIZATION QUESTIONS:

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### SPONSORSHIP:

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# PRELIMINARY CONFERENCE **SCHEDULE**



From 10:00 registration open at Faculty of Biology, MSU 1 Leninskie Gory, Bld. 12

<b>14:00</b> Opening
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14-20 Greeting from Dean of Faculty of Biology, MSU, acad. Mikhail Kirpichnikov 14:15

## **KEYNOTE LECTURE**

14:15-14:30	Cryo-electron microscopy or the challenge of doing structural biology in situ.	Wolfgang Baumeister (Max-Planck-Institut für Biochemie, Germany)
14:30-15:30	Cryo-electron microscopy of AMPA receptor-stargazin complexes	<b>Dr. Alexander Sobolevsky</b> (Columbia University, NY, USA)
20 MIN LE	CTURES	

16:30	Virus Revealed by Cryo-Electron Microscopy	(MSU, Moscow, RU)
17:00	to be announced	<b>Dr. Zakhar Shenkarev</b> (IBH, Moscow, RU)
17:30	to be announced	Prof. Olga Sokolova (MSU, Moscow, RU)
18:30	Banquet	

# PRELIMINARY CONFERENCE SCHEDULE



# SINGLE PARTICLE

9:00	Protein-bound compartments: Variations on a theme	<b>Dr. Alasdar Steven</b> (NIH, Bethesda, USA)
9:50	to be announced	<b>Prof. Elena Orlova</b> (Birkbeck College, London, UK)
10:40	to be announced	Prof. Valentin Gordeliy (IBS, Grenoble, France/MIPT, Dolgoprudny)
11:30	Coffee-brake	31 37
11:45	Cryo-electron microscopy of RNA polymerase I and III transcription complexes	<b>Dr. Christoph Müller</b> (EMBL, Heidelberg, Germany)
12:40	Role of histone chaperones in regulation of transcription and cancer	<b>Dr. Vasily Studitsky</b> (FCCC, USA/MSU, Moscow, RU)
13:30	Lunch	

# METHODS OF IMAGE RECONSTRUCTION IN CRYO-EM (APPLICATIONS TO IMAGE RECONSTRUCTION)

14:30	Advances in segmented helical reconstruction	(EMBL Heidelberg, Germany)
15:20	Beyond black-box processing: long live «toolbox-style» single-particle cryo-EM methodology	<b>Dr Pavel Afanasiev</b> (MRC, Cambridge, UK)
16:00	Cryo-EM analysis with the Volta phase plate	<b>Max Maletta</b> (FEI, Netherlands)
16:45	Coffee-brake	

# **20 MIN LECTURES**

17:00	to be announced	<b>Dr. Lydia Kurochkina</b> (IBH, Moscow, RU)
17:30	to be announced	
18:00	Poster session	

# PRELIMINARY CONFERENCE SCHEDULE

Cryo-TEM in studies of chromatin organization



Dr. Mikhail Eltsov

R.A.Kamyshinsky

**Anton Orekhov** 

Dr. Alexander Vasilev

(Kourchatov institute, Moscow, RU)

(Kourchatov institute, Moscow, RU)

(Kourchatov institute, Moscow, RU)

### **CELLULAR ORGANIZATION**

9:00

17:00

17:30

18:00

18:30

18:45

16:45	Coffee-brake	
16:00	to be announced	
15:20	High Pressure Freezing and freeze fracturing for cryo SEM applications	<b>Andreas Nowak</b> (Leica, Austria)
14:30	Immersion freezing and Cryo CLEM techniques for cryo TEM applications	<b>Dr. Guenter Resch</b> (Nexperion, Austria)
EMERG:	ING TECHNIQUES IN CRYO	
13:30	Lunch	
12:40	to be announced	
11:50	to be announced	<b>Dr. Igor Kireev</b> (MSU, Moscow, RU)
11:00	Probing the Molecular Organization of Cells and Organelles using Cryo-Electron Microscopy	<b>Dr. Daniela Nicastro</b> (Southwest University, USA)
10:40	Coffee-brake	
9:50	The functional structure of lamins in somatic cells	<b>Dr. Ohad Medalia</b> (University of Zurich, Switzerland)
9:00	Cryo-TEM in studies of chromatin organization	(Goete University, Frankfurt, German

Investigation of biocompatible containers with

nanoparticles by Cryo-SEM

Cryo-SEM study of polymers

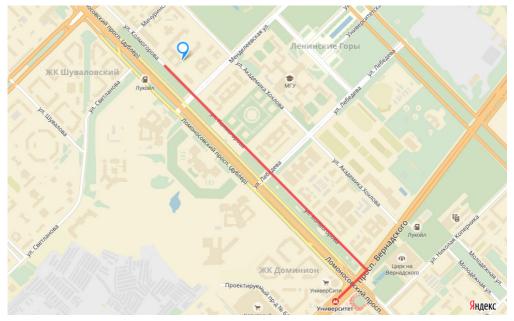
Best poster award ceremony

Closing remarks

Cryo-TEM study of layered clay minerals

# **CONFERENCE VENUE**





Conference will be held in Moscow State Unversity
Faculty of Biology, auditory BBA

Address: 1 Leninskie gory, Bld 12

# **PLACES TO STAY**

# • Universitetskaya hotel (Michurinskiy Prospect 8/29, Ramenki, 119192 Moscow, Russia)

# **CONTACTS**

BOOKING: 8-495-151-84-84 | www.universitetskaja.ru





# Hotel Korston Moscow

Ulitsa Kosygina 15, Gagarinsky, 119334 Moscow, Russia)

# **CONTACTS**

BOOKING: 8-800-100-9989 | www.korston.ru/moscow



