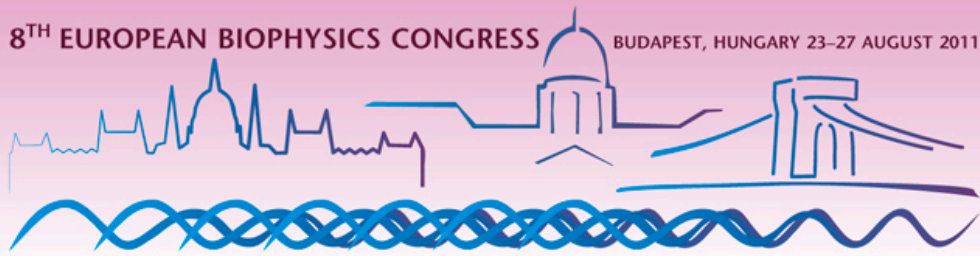


8TH EUROPEAN BIOPHYSICS CONGRESS

BUDAPEST, HUNGARY 23–27 AUGUST 2011



8TH EUROPEAN BIOPHYSICS CONGRESS

Budapest, Hungary • 23–27 August 2011



Немного истории

- 1-й конгресс, 1971 год – Баден, Австрия
- 2-й, 1997 – Орлеан, Франция
- 3-й, 2000 – Мюнхен, Германия
- 4-й, 2003 – Аликанте, Испания
- 5-й, 2005 – Монпелье, Франция
- 6-й, 2007 – Лондон, Англия
- 7-й, 2009 – Генуя, Италия
- **8-й, 2011 – Будапешт, Венгрия**
- *9-й, 2013 – Лиссабон, Португалия*
- *10-й, 2015 – Дрезден, Германия*

Место проведения

Будапешт

- Город образовался в 1873 году в результате слияния Пешта, Буды и Обуды
- 1,7 млн жителей



Будапештский университет (или Университет имени Лóранда Этвёша)

- Основан в 1635 году
- 8 факультетов
- Работает около 1500 преподавателей
- Обучается около 30000 студентов

Организаторы

- Hungarian Biophysical Society
- European Biophysical Societies Association (EBSA)
- Eötvös Loránd University (ELTE)



Stefan Hell
(Германия)
председатель научного
комитета



László Mátyus
(Венгрия)
председатель
оргкомитета



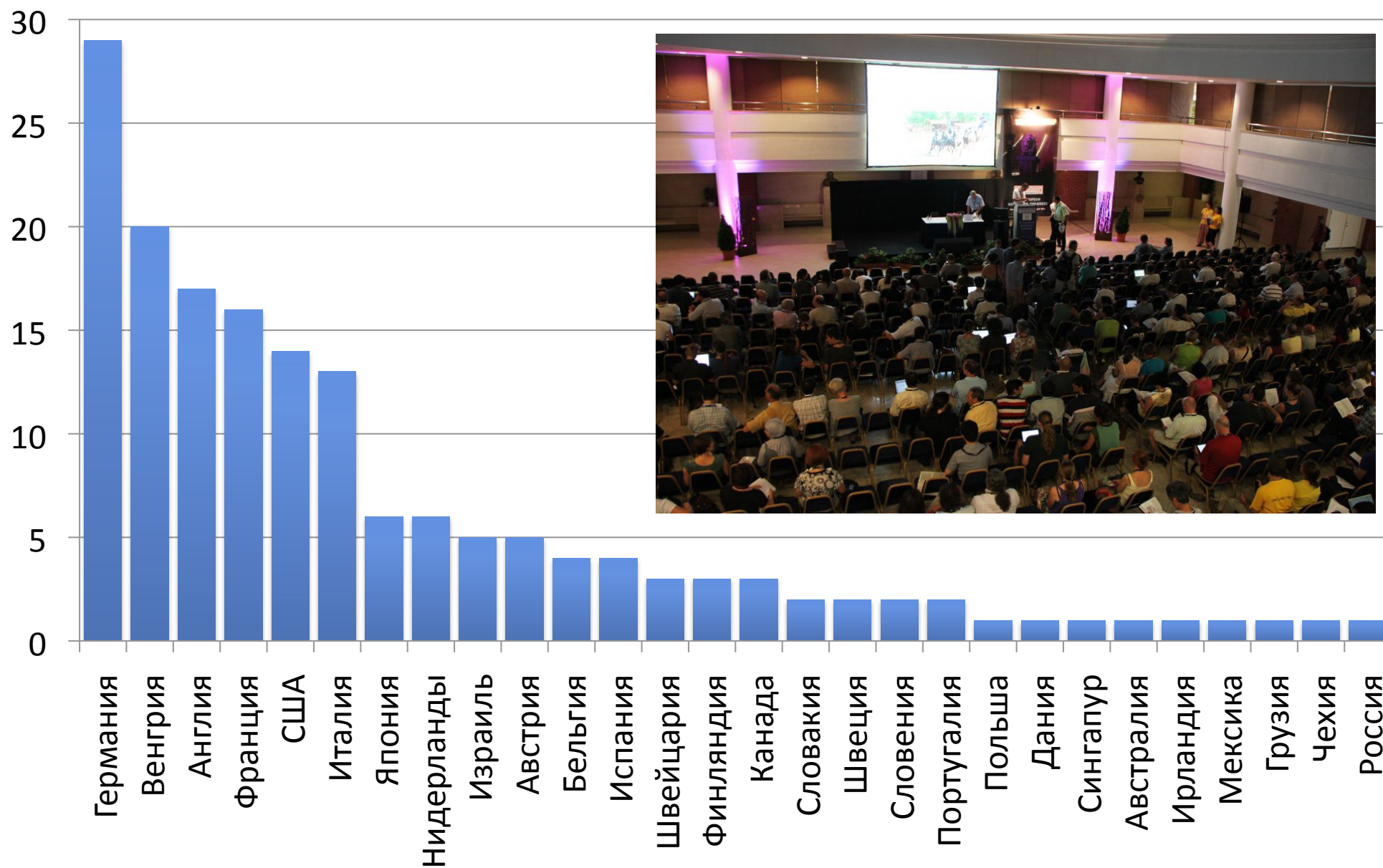
Alberto Diaspro
(Италия)
президент EBSA

Участники

- Около 1000 зарегистрированных участников из 52 стран мира
- Всего 689 тезисов, среди которых 165 устных и 524 постерных доклада



Участники (устные доклады)

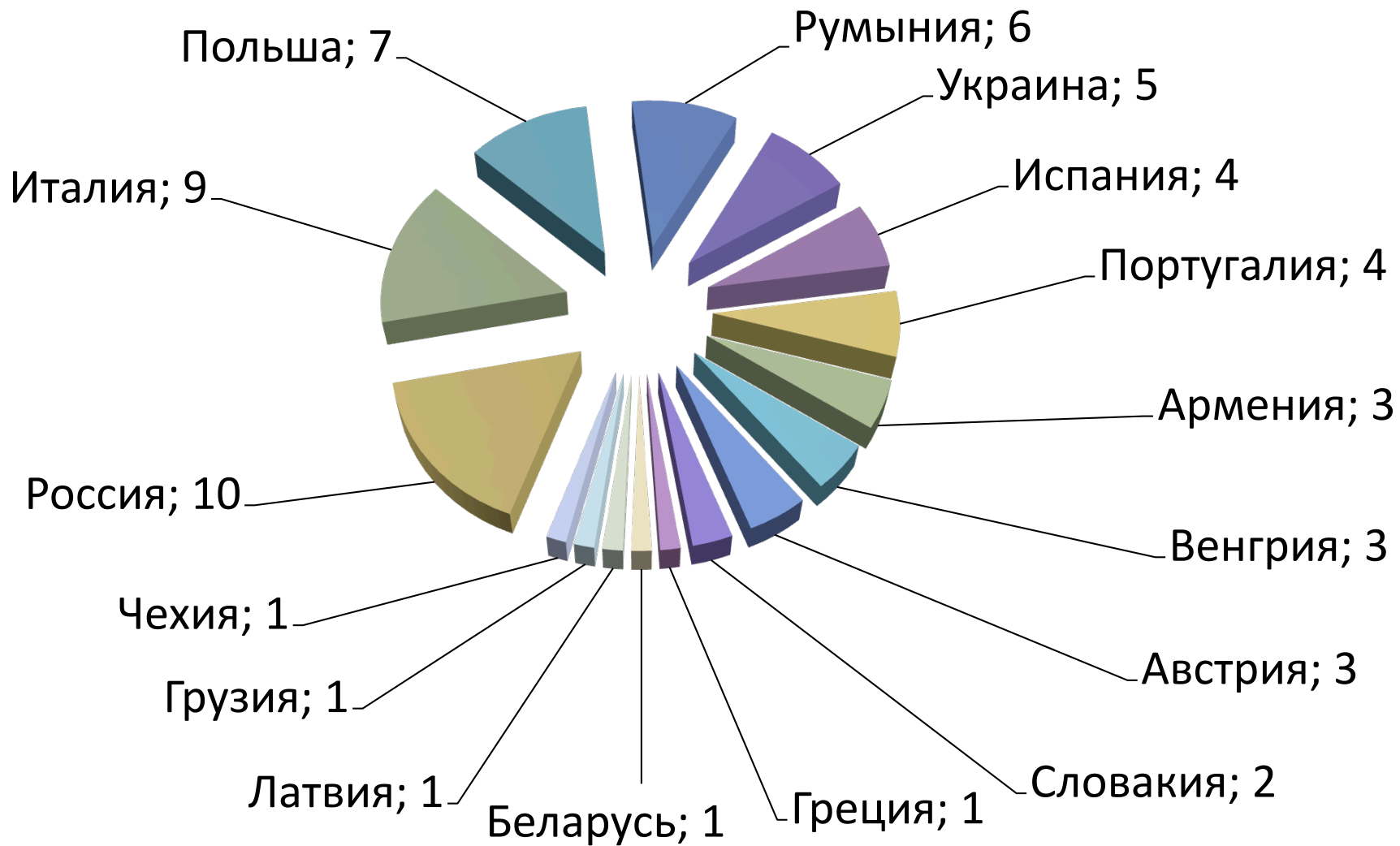


Программа конференции

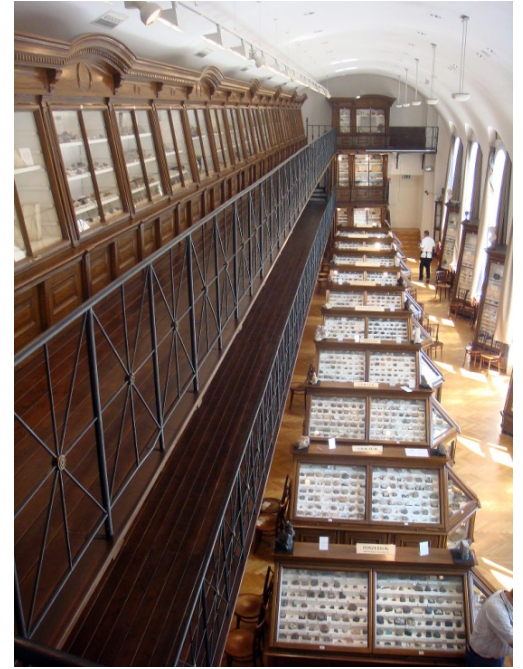
	Tuesday, August 23	Wednesday, August 24	Thursday, August 25	Friday, August 26	Saturday, August 27	
9.00		EBSA PRIZE LECTURE Kinneret Keren	PLENARY LECTURE Tamás Balla	PLENARY LECTURE Ernst Bamberg	PLENARY LECTURE Michael Grätzel	
9.15						
9.30						
9.45						
10.00		Coffee break	Coffee break	Coffee break	Coffee break	
10.15						
10.30		Biomolecular interactions	Computational biophysics and simulation	Cytoskeleton and cell migration	Membrane structure	
10.45		Neuronal systems and optogenetics	Imaging and optical microscopy	Ion channels: structure and function	Conformational dynamics, folding and IDP	
11.00		Calcium fluxes, sparks, & waves	Molecular motors	Photosynthesis	Systemic and collective behavioural aspects in biology	
11.15						
11.30						
11.45						
12.00						
12.15						
12.30						
12.45						
13.00		POSTER SESSION & EXHIBITS	POSTER SESSION & EXHIBITS	POSTER SESSION & EXHIBITS	POSTER SESSION & EXHIBITS	
13.15		EBJ EDITORIAL BOARD MEETING		EXECUTIVE COMMITTEE BURSARY RECEPTION		
13.30			PLENARY LECTURE Ferenc Mezei			
13.45						
14.00	REGISTRATION		PLENARY LECTURE Holger Stark	EBSA GENERAL ASSEMBLY	Single molecule biophysics	
14.15					Micro and nanotechnology	
14.30				Structure of proteins and protein complexes		Bioengineering & biotechnology
14.45				Live cell imaging		
14.00				Trends in neutron scattering for biology		
14.15						
15.30						
15.45						
16.00			Tea break		PLENARY LECTURE Philippe Bastiaens	Tea break
16.15						
16.30		Membrane lipids, microdomains & signalling				
16.45		Aggregated proteins				
17.00		Nucleic acid and chromatin structure & function				
17.15	OPENING			Tea break	CLOSING LECTURE Akihiro Kusumi	
17.30						
17.45	OPENING LECTURE Ada Yonath			Electron and proton transfer, bioenergetics	POSTER PRIZE AWARDS AND CLOSING CEREMONY	
18.00				New and notable		
18.15				Ion channels and disease		
18.30					FAREWELL COCKTAIL	
18.45	WELCOME RECEPTION					
19.00						
19.15						
19.30						
19.45						
20.00						
20-23			SOCIAL DINNER			

№	Секция	Доклады
1	Biomolecular interactions	100
2	Neuronal systems and optogenetics	10
3	Calcium flaxes, sparks & waves	9
4	Membrane lipids, microdomains & signaling	56
5	Aggregated proteins	30
6	Nucleic acid and chromatin structure & functions	18
7	Computational biophysics and simulation	163
8	Imaging and optical microscopy	33
9	Molecular motors	15
10	Structure of proteins and protein complexes	41
11	Live cell imaging	25
12	Trends in neuron scattering for biology	11
13	Cytoskeleton and cell migration	30
14	Ion channels: structure and function	27
15	Photosynthesis	24
16	Electron and protein transfer, bioenergetics	20
17	Ion channels and disease	14
18	New and notable	16
19	Membrane structure	53
20	Conformational dynamics, folding and IDP	22
21	Systemic and collective behavioral aspects in biology	9
22	Single molecule biophysics	36
23	Micro- and nanotechnology	37
24	Bioengineering & biotechnology	23

Участники



- Оргкомитетом поддержан 61 молодой ученый



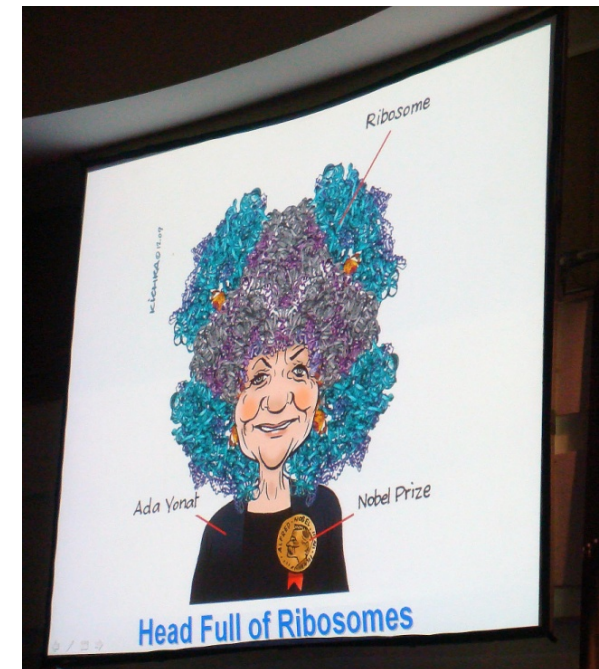
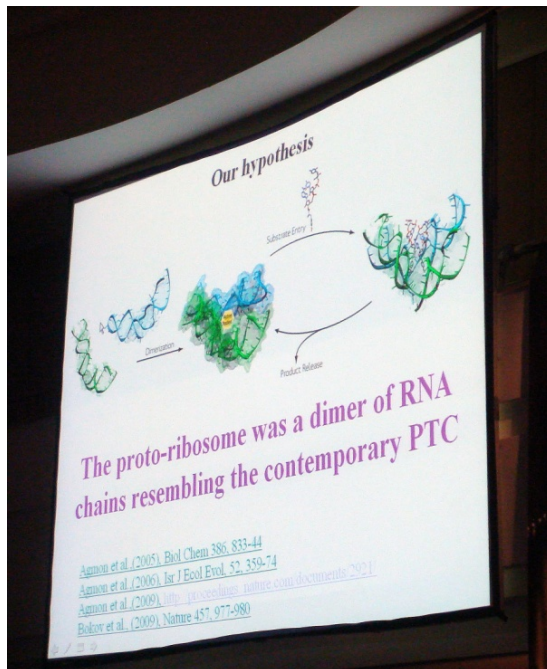
Пленарная сессия



Ada Yonath «View into the ribosomal exit tunnel»

Weizmann Institute, Реховот, Израиль

Нобелевская премия по химии 2009 «за исследования структуры и функций рибосомы»

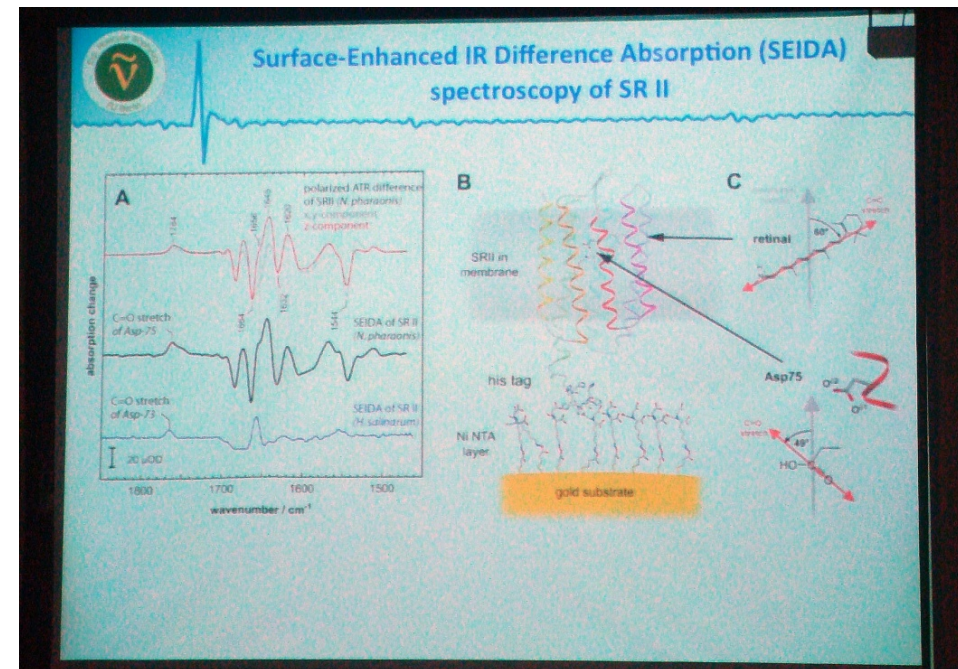
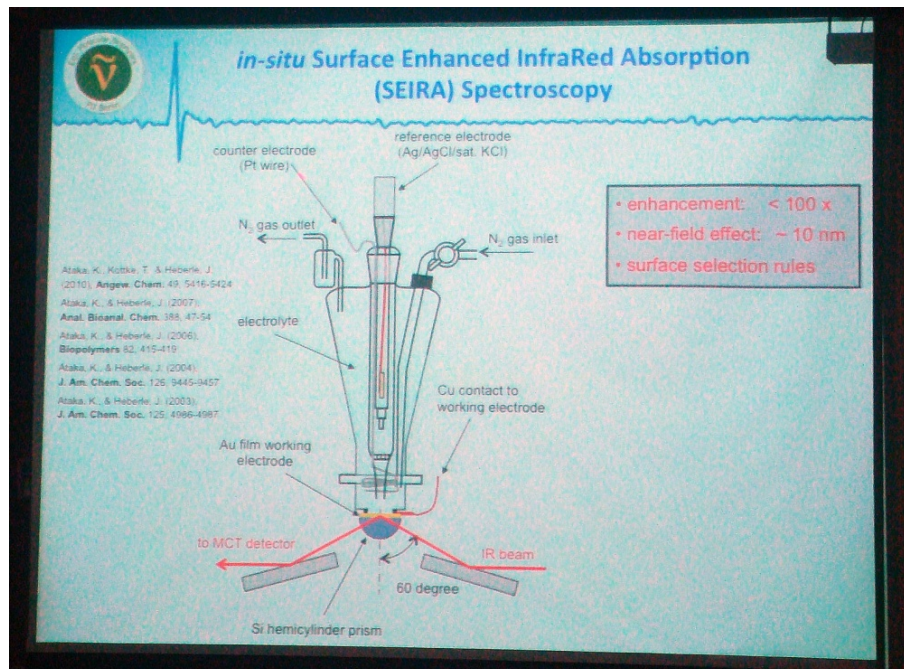


Устная сессия



Joachim Heberle «Surface-Enhanced InfraRed Absorption Spectroscopy (SEIRAS) of membrane protein monolayers»

Freie Universität, Берлин, Германия



Устная сессия



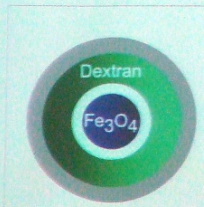
Daniel Horak «Multifunctional magnetic nanoparticles for cell imaging»

Institute of Macromolecular Chemistry AS CR, Прага, Чехия

Stem cell labeling with various magnetic nanoparticles

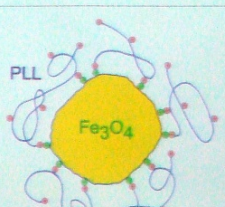
Commercial vers. novel iron oxide nanoparticles

Endorem®
Dextran-coated
100 nm



Dextran
Fe₃O₄

PLL
Poly(amino acid)
bound
on the surface
10 nm



Fe₃O₄


Tests

- Cytotoxicity (WST-1 colorimetry)
- Labeling efficiency (Prussian Blue)
- *In vitro* and *in vivo* detection in MR imaging

Evaluated effect on
rat and human MSCs from bone
marrow as a model


- Chondrocytes
- Langerhans islets

In vitro MR imaging of cell suspension



MRI of gelatin phantoms with (a) unlabeled, (b) Endorem-, (c) PLL-coated Endorem-, (d) PLL-coated IO-, (e) D-mannose-coated IO-, (f) PDMAAm-coated IO-, and (g) uncoated IO-labeled rMSCs

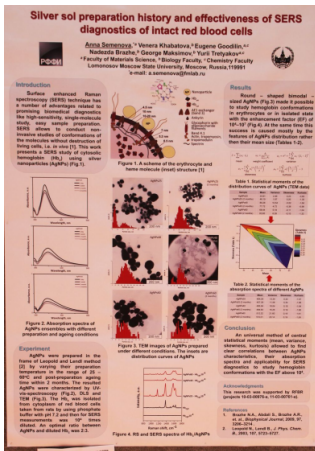
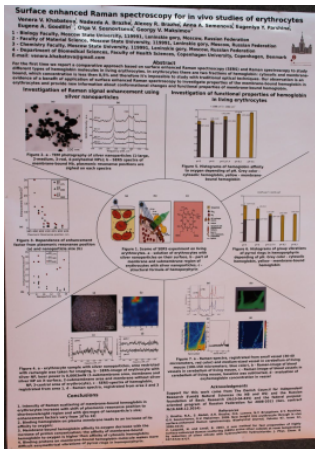
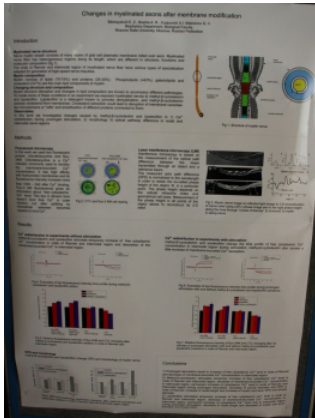
In vivo MR imaging



Axial and coronal MRI of a rat brain with 1000 PLL-coated IO- and Endorem-labeled cells in left and right hemisphere, respectively

Постерная сессия

- **E. Bibineysvili**, A. Brazhe, A. Yusipovich, G. Maksimov
«Changes in myelinated axons after membrane modification» (*Calcium fluxes, sparks & waves*)
- **V. Khabatova**, N. Brazhe, A. Brazhe, A. Semenova, E. Parshina, E. Goodilin, O. Sosnovtseva, G. Maksimov
«Surface enhanced Raman spectroscopy for in vivo studies of erythrocytes» (*Single molecule biophysics*)
- **A. Semenova**, V. Khabatova, E. Goodilin, N. Brazhe, G. Maksimov, Yu. Tretyakov
«Silver sol preparation history and effectiveness of SERS diagnostics of intact red blood cells» (*Micro and nanotechnology*)



http://nanometer.ru/2011/08/28/biofizika_261190.html

Спасибо за внимание!

