

# Meeting with Group Leaders

September 9, 2013

Zdenek Hostomsky

# Agenda

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- Update on new Junior Group Leaders
- Evaluation of Research-Service and Service groups
- Financing of Research Groups in 2013
- Upcoming events

# Jr Group Leader selection process

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Based on recommendations by IAB and internal IOCB considerations:

- Scientific personality
- Strategic fit
- Ability to interact and collaborate with internal IOCB groups

# Junior Group Leaders

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Currently active candidates:

- **Josef Lazar** (Inst Nanobiol & Struct Biol. AS CR, Nove Hradý)
- **Robert Hanus** (IOCB, Prague)
- **Edward Curtis** (Harvard University)
- **Norbert Weiss** (Hotchkiss Brain Inst - University of Calgary)
- **Louis Adriaenssens** (Catalan Inst of Chem Res, Tarragona)
- **Dmytro Yushchenko** (EMBL, Heidelberg)
- **Milan Vrabel** (Ludwig-Maximilians University, Munich)

# Research-Service Groups 2013

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- NMR Spectroscopy
- Mass Spectrometry
- Structural Biology
- Electromigration methods
- Radioisotopes laboratory
- Biochemical Pharmacology
- Virology
- Bioinformatics
- Medicinal Chemistry

# Research vs. Service

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Research

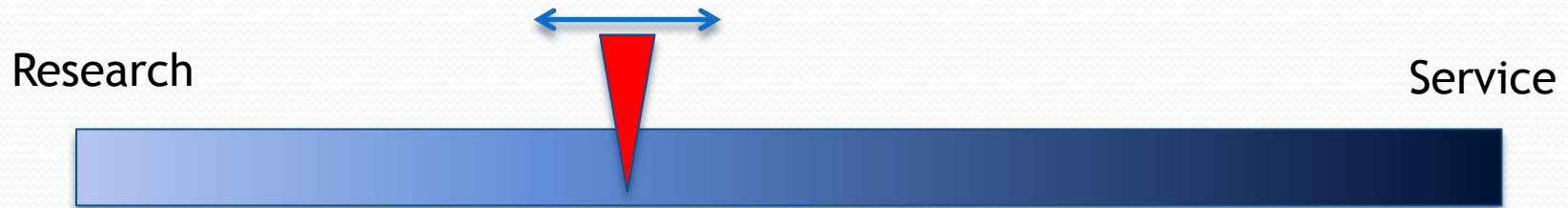
Service



# Research vs. Service



Institute sets the boundary



Paid from the group's  
research budget (grants, etc.)

Paid by the Institute, as it is  
considered important for  
research groups

Collaboration

Qualified service

May refuse

May not refuse

Co-authorship

Acknowledgment

# Research-Service Groups 2014

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- Structural Analysis (NMR, EPR, IR, CD)
- Mass Spectrometry
- Biochemical Pharmacology
- Virology
- Bioinformatics
- Medicinal Chemistry

# Structural Analysis

(David Šaman)



- Merger of NMR and Molecular Spectroscopy groups
- Employs multiple approaches and techniques:
  - Nuclear Magnetic Resonance (NMR)
  - Electron Paramagnetic Resonance (EPR)
  - Circular Dichroism (CD)
  - Infrared spectroscopy (IR)

Research

1.8

Service

10.4

# Mass Spectrometry

(Josef Cvačka)



- Small molecule routine services and research
- Increased emphasis on BioMS and Proteomics

Research

**4.9**

Service

**10.3**

# Biochemical Pharmacology

(Helena Mertlíková Kaiserová)



- Service strictly speaking (2.5 FTE):
  - XTT cytotoxicity on 4 cell lines
  - Analysis of cell cycle and apoptosis by flow cytometry
  - Data analysis and export
  - Technical support of the instrumentation
- Additional Assays
  - Kinase assays
  - Thymidine phosphorylase assay
  - Inhibition of DNA polymerases
  - Labeled compounds

Research **4.0**

Service **5.0**



- Setup and maintenance of the BSL3 core facility
- Virus panel
- Virology drug discovery program



**ELIXIR** - Infrastructure for biological and biomedical data  
(National Nod at IOCB, ELIXIR\_CZ consortium, incl. CESNET hardware)

- Proteomics
  - BioMassSpec
    - Data storage and analysis
  - Super-resolution microscopy
- Genomics
  - Sequence analysis, phylogenetic trees, structure predictions, modeling, RNA seq,
- Small molecule databases for BioMedical Sciences
- Education



- Chemistry support in:
  - Collaborative MedChem inhibitor design and synthesis
  - Custom peptide synthesis
  - Amino acid analysis
- Guest chemist concept
  - Providing infrastructure and quality control
  - Facilitating knowledge transfer

# Conversion to Research Group

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## Structural Biology (Pavlína Řezáčová)

- Service core within the Research group

Research	<b>7.5</b>	Service	<b>3.0</b>
		(in transition)	

## Electromigration methods (Václav Kašička)

Research	<b>4.8</b>
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- Center of Scientific Information
- Information Technology
- Analytical Chemistry
- Molecular Spectroscopy
- Developmental Workshops
- Waste Management



- Center of Scientific Information
- Information Technology
- Analytical Chemistry
- Radioisotopes Laboratory
- Developmental Workshops
- Waste Management

# Service positions - Initial proposal



Group	Research	Service	
Structural Analysis	1.8	10.4	5.2 NMR 5.2 MolSpec
Mass Spectrometry	4.9	10.3	
Biochemical Pharmacology	4.0	5.0	
Virology	3.3	2.9	
Bioinformatics	1.3	2.3	
Medicinal Chemistry	2.6	5.6	
Center for Scientific Info	-	10.0*	
IT	-	7.0*	
Analytical Chemistry	-	5.6	
Radioisotopes Lab	-	3.0	
Developmental Workshops	-	15.6	
Waste management	-	3.0	
Total		80.7	

# Evaluation of service

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- Internal review by Board of the Institute and IOCB management  
(next Board meeting on Sept.11, 2013)
- Ongoing survey of usage

# Group efficiency awards

	Group	GEF points	Award to budget
1	Hocek	55,053	292 K
2	Hobza	36,521	194 K
3	Krečmerová	30,260	161 K
4	Šaman	29,340	156 K
5	Jungwirth	26,600	141 K
6	Bouř	26,301	140 K
7	Cvačka	23,976	127 K
8	Kašička	22,106	117 K
9	Beier	21,183	112 K
10	Michl	20,692	110 K
11	Konvalinka	18,806	100 K
12	Maloy Řezáčová	18,177	96 K
13	Janeba	16,333	87 K
14	Valterová	16,224	86 K
15	Rulíšek	12,770	68 K

	Group	GEF points	Award to budget
16	Vondrášek	12,228	65 K
17	Nencka	10,524	56 K
18	Elbert	10,009	53 K
19	Mertlíková Kaiserová	9,980	53 K
20	Rosenberg	8,591	46 K
21	Pichová	8,034	43 K
22	Mareš	6,654	35 K
23	Jiráček	6,134	33 K
24	Jahn	6,123	32 K
25	Havlas	5,562	30 K
26	Starý	4,647	25 K
27	Šrogl	4,581	24 K
28	Majer	3,322	18 K
29	Weber	0,467	3 K
Total			2 503 K

# Most significant publications in 2013

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- Physical and Theoretical Chemistry
- Medicinal and Organic Chemistry
- Biochemistry and Molecular Biology
- Interdisciplinary (within IOCB)

Each group may submit 1 most significant paper published in 2013. **Semi-autonomous units within larger groups may submit their own papers if the group leader is not listed as co-author.** The papers will be judged by an external panel (IAB members, *ad hoc* reviewers) as well as by an internal IOCB panel (team leaders and management). Top one third of papers in each category will be awarded prizes in the form of group money.

# Next events in 2013

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- Science Fair - September 18 - take your kids!
- Happy Hours - Thursday Sept. 19, at 4:30 pm, in  
NTK cafeteria  
Thursday Nov. 7
- Laborexpo - September 25-26 in Pakul  
IOCB Developmental Workshops booth - free tickets

# Next events in 2013 cont.

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- Chemicke listy - deadline end of September  
(absolute deadline - end of October)
- 60 years of IOCB Exposition in National Technical Museum - from November 5
- 60th Anniversary of IOCB - big celebration in Břevnov Monastery - November 21
- (No Open Doors Days this year ...)

# VĚDECKÝ JARMARK

Věda nás baví...



18. září 2013 od 8.30 do 17.30 hodin  
na Vítězném náměstí v Dejvicích, Praha 6

Vstup je zdarma :-)



Zveme všechny žáky, studenty a širokou veřejnost na celodenní interaktivní akci pod širým nebem.  
Přijďte si pohrát a vyzkoušet si na vlastní kůži, co dokáže věda.

[www.vedeckyjarmark.cz](http://www.vedeckyjarmark.cz)

Záštitu převzali: RNDr. Tomáš Hudeček, Ph.D., primátor hl. města Prahy  
PhDr. Jindřich Fryč, I. náměstek ministra školství, mládeže a tělovýchovy  
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