



ÚOCHB ^{AV}
IOCB PRAGUE

Meeting with Group Leaders

Zdenek Hostomsky | Sept. 11, 2017

Agenda

- Most significant publications 2016 – results
- Evaluations 2017
- Evaluations 2018
- Major Awards
- ITS update
- Miscellanea

Most significant publications 2016



- Physical and Theoretical Chemistry

(8 for 2015) **8** submissions → **5** preselected → **3** awards

- Medicinal and Organic Chemistry

(7 for 2015) **8** submissions → **6** preselected → **4** awards

- Biochemistry and Molecular Biology

(6 for 2015) **7** submissions → **5** preselected → **4** awards

- Interdisciplinary (within IOCB)

(8 for 2015) **11** submissions → **5** preselected → **3** awards

Most Significant Publications 2016

Physical and Theoretical Chemistry part 1



Listed alphabetically by first author

Dziuba D, Jurkiewicz P, Cebecauer M, Hof M, and Hocek* M

A Rotational BODIPY Nucleotide: An Environment-Sensitive Fluorescence-Lifetime Probe for DNA Interactions and Applications in Live-Cell Microscopy

Angew Chem Int Ed 2016, 55, 174-178

Mason** P E, Buttersack** T, Bauerecker* S, and Jungwirth* P

A Non-Exploding Alkali Metal Drop on Water: From Blue Solvated Electrons to Bursting Molten Hydroxide

Angew Chem Int Ed 2016, 55, 13019-13022

Most Significant Publications 2016

Physical and Theoretical Chemistry part 2



Listed alphabetically by first author

Šebestík J, Kapitán J, Pačes O, and Bouř* P

Diamagnetic Raman Optical Activity of Chlorine, Bromine, and Iodine Gases

Angew Chem Int Ed 2016, 55, 3504-3508

Organic and Medicinal Chemistry part 1



Listed alphabetically by first author

Havlík J, Raabová H, Gulka M, Petráková V, Krečmarová M, Mašek V, Lousa P, Štursa J, Boyen H-G, Nesládek M, and Cígler* P

Benchtop Fluorination of Fluorescent Nanodiamonds on a Preparative Scale: Toward Unusually Hydrophilic Bright Particles

Adv Funct Mater 2016, 26, 4134-4142

Machara A, Lux V, Kožíšek M, Grantz Šašková K, Štěpánek O, Katora M, Parkán K, Pávová M, Glass B, Sehr P, Lewis J, Müller B, Kräusslich* H-G, and Konvalinka* J

Specific Inhibitors of HIV Capsid Assembly Binding to the C-Terminal Domain of the Capsid Protein: Evaluation of 2-Arylquiazolines as Potential Antiviral Compounds

J Med Chem Soc 2016, 59, 8621-8633

Most Significant Publications 2016

Organic and Medicinal Chemistry part 2



Listed alphabetically by first author

Rais R, Jančařík A, Tenora L, Nedelcovych M, Alt J, Englert J, Rojas C, Le A, Elgogary A, Tan J, Monincová L, Pate K, Adams R, Ferraris D, Powell J, Majer* P, and Slusher* B

Discovery of 6-Diazo-5-oxo-L-norleucine (DON) Prodrugs with Enhanced CSF Delivery in Monkeys: A Potential Treatment for Glioblastoma

J Med Chem Soc 2016, 59, 8621-8633



Director's Award

Slavíková B, Chodounská H, Nekardová M, Vyklický V, Ladislav M, Hubálková P, Krausová B, Vyklický L, and Kudová* E

Neurosteroid-like Inhibitors of N-Methyl-D-aspartate Receptor: Substituted 2-Sulfates and 2-Hemisuccinates of Perhydrophenanthrene

J Med Chem Soc 2016, 59, 4724-4739

Most Significant Publications 2016

Biochemistry and Molecular Biology part 1



Listed alphabetically by first author

Doležal M, Zábranský A, Dostál J, Vaněk O, Brynda J, Lepšík M, Hadravová R, and Pichová* I

Myristoylation drives dimerization of matrix protein from mouse mammary tumor virus

Retrovirology 2016, 13, 1-15

Hnízda A, Škerlová J, Fábry M, Pachl P, Šinalová M, Vrzal L, Man P, Novák P, Řezáčová P, and Veverka* V

Oligomeric interface modulation causes misregulation of purine 5'-nucleotidase in relapsed leukemia

BMC Biology 2016, 14, 1-16

Most Significant Publications 2016

Biochemistry and Molecular Biology part 2



Listed alphabetically by first author

Klíma M, Tóth DJ, Hexnerová R, Bäumlová A, Chalupská D, Tykvart J, Řezábková L, Sengupta N, Man P, Dubánková A, Humpolíčková J, Nencka R, Veverka V, Balla T, and Bouřa* E

Structural insights and *in vitro* reconstitution of membrane targeting and activation of human PI4KB by the ACBD3 protein

Sci Reports 2016, 6, 1-11



Director's Award

Viková J, Collinsová M, Kletvíková E, Buděšínský M, Kaplan V, Žáková L, Veverka V, Hexnerová R, Tarazano Aviñó, Straková J, Selicharová I, Vaněk V, Wright DW, Watson CJ, Turkenburg JP, Brzozowski* AM, and Jiráček* J

Rational steering of insulin binding specificity by intra-chain chemical crosslinking

Sci Reports 2016, 6, 1-12



Galeta J, Šála M, Dračínský* M, Vrábel M, Havlas Z, and Nencka* R

Single-Step Formation of Pyrimido[4,5-*d*]pyridazines by a Pyrimidine/Tetrazine Tandem Reaction

Org Lett 2016, 18, 3594-3597

Hexnerová**R, Křížková**K, Fábry M, Sieglová I, Kedrová K, Collinsová M, Ullrichová P, Srb P, Williams C, Crump MP, Tošner Z, Jiráček J, Veverka* V, and Žáková* L

Probing Receptor Specificity by Sampling the Conformational Space of the Insulin-like Growth Factor II C-domain

J Biol Chem 2016, 291, 21234-21245



Šácha P, Knedlík T, Schimer J, Tykvart J, Parolek J, Navrátil V, Dvořáková P, Sedlák F, Ulbrich K, Strohalm J, Majer P, Šubr* V, Konvalinka*J

iBodies: Modified Synthetic Antibody Mimetics Based on Hydrophilic Polymers Decorated with Functional Moieties

Angew Chem Int Ed 2016, 55, 2356-2360

Most significant papers 2016

The **Interdisciplinary (within IOCB)** category has been introduced to stimulate interdisciplinary interactions within IOCB and encourage utilization of the full potential of the institute.

It turned out mostly problematic, and will be canceled next year. The submissions will be in the 3 broad categories:

- **PHYS**
- **CHEM**
- **BIO**

Other mechanisms, such as **IOCB interdisciplinary grants** will be used to motivate interdisciplinary collaborations.

Pavel Hobza received Schrödinger medal

- Schrödinger medal is awarded each year by World Association of Theoretical and Computational Chemists (WATOC) to one outstanding theoretical and computational chemist
- Pavel Hobza received Schrödinger medal for 2017 for his outstanding work on noncovalent interactions
- Following Josef Michl in 1992, Pavel Hobza is the second Czech Schrödinger medal laureate in history

CONGRATULATIONS!



License agreement with Novo Nordisk

16

- Group of **Lenka Maletínská** developed new compounds with positive effects in experimental animal models of obesity and type II diabetes. Her team focused on synthesis and study of modified analogues of endogenous neuropeptides.
- IOCB and Institute of Physiology have signed license agreements with major pharmaceutical company Novo Nordisk which will develop and prepare these compounds for preclinical testing

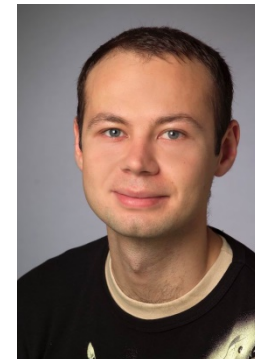


CONGRATULATIONS!

Selected Other Awards

17

- Pavla Perlíková & Dmytro Yushchenko laureates of the Otto Wichterle Award for the year 2017 in the category Life and Chemical Sciences



- Petr Cígler laureate of the Neuron Impuls Award for the year 2017 in the Chemistry category



CONGRATULATIONS!

Evaluation 2017

- Petr Cígler and Evžen Bouřa promoted to Sr. GL by Oct. 1, 2017
- Kvido Stříšovský – extended by 2 years as Jr. GL
- Josef Michl – extended by 3 years
- Ivan Rosenberg and Václav Kašička – terminated by Dec. 31, 2017 as senior research groups
- Zuzana Kečkéšová – new Jr. Research group by Oct. 1, 2017

Evaluation 2017 – closing groups

- IAB recommended to retain technology and expertise from the groups to be closed
- New arrangements will be announced by Oct. 1, 2017
- Closing group guidelines:
 - Take care of students
 - Complete running grants

Evaluation 2018

20

- “Five” year evaluation of senior groups:
 - Jiří Jiráček
 - Jan Konvalinka
 - Pavlína Maloy Řezáčová
 - Michael Mareš
 - Iva Pichová
 - Petr Beier
 - Michal Hocek
 - Ullrich Jahn
 - Ivo Starý
 - Petr Bouř
 - Lubomír Rulíšek

- Tenure decision:
 - Radim Nencka

Happy Hours Etiquette

- Increase communication
- Decrease alcohol intake

In the subsequent discussion the following consensus seemed to have emerged:

- *Keep the tradition of IOCB Happy Hours alive*
- *Stop serving alcoholic beverages by 9 pm*
- *The premises should be vacated by 10 pm*
- *Inform your supervisor ahead of time if you are planning to bring a guest*

Mtgs w GLs - 2017 Schedule



- January 23
- February 27
- March 27
- April 24
- May 29
- ~~June 26~~ (cancelled)
- September 11
- October 9
- November 6
- December 18

Always on Mondays at 10:00 am in the Director's Boardroom

Official name of IOCB



Based on the information from the Czech Academy of Sciences (Foundation Deed), the name of the institute in English should be:

**The Institute of Organic Chemistry and Biochemistry
of the Czech Academy of Sciences**

Abbrev. form : **Czech Acad Sci, Inst Org Chem & Biochem**

(no v.v.i. should be used in English, only in the Czech name, which remains: Ústav organické chemie a biochemie Akademie věd České republiky, v.v.i.)



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ITS Update

Jiří Polách | Sep 11, 2017

Poster printing



- pricing for A0 poster
 - paper – 470 Kč
 - photopaper – 530 Kč
 - textile – 630 Kč
- charged twice a year (01-06 in Jul, 07-12 in Jan), charged as a „VEJ“ budget reduction – cannot be paid by a grant
- please do not use *colour transitions*, *shading* and *fine color effects* – especially not in PowerPoint



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- Intraweb > ITS > E-mail > Signature

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