



ÚOCHB ^{AV}
IOCB PRAGUE

Meeting with Group Leaders

Jan Konvalinka | November 4, 2022

Agenda

- Thank you and congratulations
- GSRC Prague
- Coordinator of Institutional Resilience (Koordinátor institucionální odolnosti)
- Research Integrity and Data Management (Ethical Code for Researchers)
- MERIT – Call for nomination of independent experts
- Buildings & Technical Summary
- Invited lectures
- Occupational Health and Safety
- Miscellanea

Several Thank you and Congratulations

- Pavel Hobza for Neuron Prize!
- Jana Dvořáková, Božena Petschová, Martin Havránek and Martin Matoušek (among others) for flawless results of the in depth 5-years control from the Academy
- Communication department and everybody involved for the „Night of Scientists“ and current „Open door day“

Gilead Sciences Research Center Prague

- New round of the program, more tailored for the needs of Gilead, more focused on IP and medicinal chemistry
- 6 highly competitive proposals from IOCB submitted, evaluated by Joint Steering Committee (Hostomský, Fusek, Maloy Řezáčová for IOCB)
- Three projects awarded:
 - Gabo BIRKUŠ
Inhibitors of rhinovirus 3C protease for treatment of HRV induced pulmonary exacerbations
 - Radim NENCKA
Methyltransferase inhibitors for treatment of viral infections and cancer
 - Radek POHL
Inhibitors of therapeutically relevant galectins

Congratulations and good luck for the winners, take it easy for the less successful ones

Institutional Resilience

“Institutional resilience” - to prevent influence of foreign powers in the Institute. Consists of:

- Cyber security - software and hardware and awareness
- International control and sanctions compliance
- preventing theft of IP and advanced technologies



Some states (esp. dictatorial regimes and fundamentalistic states) institutions and companies which consider Czechia and EU their enemies are interested to get access to knowledge and technologies which are not available to them. And they are active !!

- IOCB generates such knowledge and use these technologies. We have to prevent their misuse.
- Nominated Institutional resilience coordinator - Jiri Polman
- will include institutional resilience basics in personnel training

Research Integrity and Data Management

The research at IOCB must be performed following the highest standards of research integrity and the correct data management is a crucial issue.

A key integral component of data management environment is the use of **laboratory notebooks** that records every experiment and inventory system of all new compounds and their characterization data. The lab notebook can be either **electronic (preferentially)** or bound paper book where the records are written with non erasable pen. Every experiment must be dated.

For all work published (including peer-reviewed work as well as archive manuscripts or theses), **primary data** that underlie those published **must be kept** to document authenticity and allow reproducibility, in line with the FAIR Data management principles.

All primary or raw data should be archived and safely **stored for at least 10 years** after the first publication in at least two independent storage media (hard-disks, CD/DVD etc.).

Research Integrity and Data Management

CHEM:

The CHEM cluster at IOCB broadly includes organic synthesis, bioorganic and medicinal chemistry, as well as material chemistry. All new compounds must be fully characterized by analytical methods and spectroscopy (NMR, MS, IR etc.) and should be included in an electronic inventory system. All raw NMR data must be archived in the original FID format together with acquisition parameters; non-standard processing parameters should be also archived. Raw MS data should be stored in the format and software provided by the supplier of the spectrometer. Other raw spectra should also be archived in the format of the providers of the instruments. For X-ray crystallography, Crystallographic Information Files (CIFs), structure factor tables, and CheckCIF should be submitted to the Cambridge Crystallographic Data Centre (CCDC). Scientists are encouraged to submit all stable new compounds (even if not intended for medicinal chemistry) into the IOCB Compound Library for biological activity testing.

Research Integrity and Data Management

BIO:

The BIO cluster at IOCB broadly includes molecular cell biology, structural biology and chemical biology. Proteomics, lipidomics and transcriptomics data must be deposited in the respective omics databases (PRIDE, etc.), and macromolecular structural data in the common structural databases (Protein Data Bank, PDB) as usually required by the journals, or be archived at IOCB. Other primary data that are usually not included into the extended or supplemental data sections may represent e.g. primary uncropped and unaltered immunoblots and other gel electrophoreses based images, immunofluorescence (light microscopy) images, enzyme progress curves used for IC_{50} measurements and other primary enzymatic and binding data, etc. In all mentioned cases, also raw data without any modifications or alterations should be archived. A serious and distinct arising issue is raw data from cryoEM experiments, which can easily amount to tens of TB from a single high-resolution experiment. The regime of backing up and accessing this data type will most likely have to be different from the rest of the data (e.g. using magnetic tapes).

Research Integrity and Data Management

PHYS - Computational data:

Preserving data from computational works ensures the reproducibility and integrity of scientific results and further research based on them. To ensure reproducibility, researchers should keep at least all input files/data, codes, and the instructions for executing them in order to be able reproduce the results obtained. These files and information details include initial structures and simulation conditions, databases, and similar information that may directly and substantially influence the obtained results. Preserved information should also include the complete identification of codes/software used (e.g., version, compilation options, parameters); in-house codes or scripts should be kept under an open-source license. The usage of fully annotated protocols that contain all information that ensures procedural reproducibility (e.g., jupyter notebooks) should be encouraged. Although not always feasible (primarily due to size issues), preserving the raw data obtained should also be encouraged, especially those used in published work. The above data should be made available upon a reasonable request. When the data are under embargo or restricted access, at least basic metadata should be provided.

MERIT – Call for Independent Experts

- MERIT(Central Bohemia Mobility Programme for Excellence in Research, Innovation and Technology) – call for the nomination of **Independent Experts** needed for the evaluation of postdoctoral Fellows from Abroad
(výzva k nominaci nezávislých expertů potřebných k evaluaci postdoktorandů ze zahraničí); 30 incoming postdocs within Horizon Europe MSCA-COFUND-2021
- **Please nominate** these experts for the ÚOCHB
- The experts' remuneration: 500 EUR/ day
- More info: <https://s-ic.cz/cs/kariera/open-call-for-independent-experts/>

▪ CryoEM

What we have:

- ✓ implementation documentation
- ✓ statement of dimensions (výkaz výměr) - necessary for tender
- ✓ valid building permit

The legal department, in cooperation with THS, prepares the contract and tender documentation for the selection of the contractor.

Start of the construction: 1Q / 2Q 2023 (i.e. spring 2023)

VÚV – Podbaba

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Phase I:

- **4th Floor** - to the left of the staircase (X-man spin-off)
- furniture, 1 hood and 3 flow boxes will be ordered during this week
- Operated from: January 2023

Phase II:

- **5th Floor** – Organic chemistry hoods
- -working on a price offer for hoods and laboratory equipment

Phase III:

- **4th Floor**- to the right of the stairs (research group from IOCB)
- Dr. Kasicka will specify the requirements for equipment (furniture, technical gases, machines, air conditioning ...)



VUSTE – Velflíkova

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Currently rented:

3rd Floor:

on the right - already occupied by **OP VVV** (prospectively OP JAK)

on the left - contract ready for signature - administration

2nd Floor:

on the right - contract ready to sign - administration

1st Floor:

on the right - Dr. Hoffit, **e-shop**



Occupational Health and Safety - proposal

Jiří Polman

Competiton - Safety 2020

- Nr. 5 - Construction worker



Competiton - Safety 2020

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- Nr. 4 - Grinder



Competiton - Safety 2020

- Nr. 3 – Repair of A/C



Competiton - Safety 2020

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- Nr. 2 – Forklift driver



Competiton - Safety 2020

- Nr. 1 - Electrician



Competition - Safety 2020

- Special premium - North Korean soldier



Legge 626: L'apoteosi

Best Practice in Industry

“If you can not make it safely, do not do it at all”.

- Boss declares safety as a top priority
- Consists of formal documents and DISCIPLINE
- Continuous emphasis on safety needed, not just a campaign
- Safety education is integral part of education generally
- If you see something dangerous, immediately correct it
- “Safety is a good business”. It protects the company, people, well-being, health, lives, families.

Proposals - Formal Part

- Establish new safety organization reporting to the director and represented in management meetings
- Safety manager (or JP), safety proxy organic chem. (Radek Souček) and biochem. + Mr. Pošta
- Create and publish “Waste manual”
- On the door of each lab, there should be symbols of PPE, which is needed
- Closing valves of water and gases must be accessible to everybody
- safety e-training: levels: basic, manager, organic chem., biochemist
- Mark smoking areas in the Institute map, **ban smoking on the roof of bld.B**

Proposals - discipline

- Regular monthly walks through the labs - safety audits
- Colleagues correct colleagues when seeing improper behavior
- 1x year Fire Alarm (next one - involve fire brigades Prague 6)
- Organize Fire handling training for newcomers 2x/year (fire extinguisher training, safety blankets etc.)
- First aid training, each corridor should have an emergency first aid person
- Remove bicycles from the labs
- No headphones in the lab, no cut trousers, no synthetic closing in org. lab

Miscellanea

New Junior Group at IOCB

- Based on the open call and recommendation of the International Advisory Board, Junior Group of Paulo DeSouza Paioti (currently Uni Strassbourg) will join IOCB in March 2023

Some requests and info for you



- When you have chemicals for disposal, it is mandatory to properly mark what is the content and write a name and contact or give the chemical to Mr. Šimek personally
- **IMPORTANT!** If we can not identify the chemical, we can not dispose it or we pay extreme price.
- We are preparing e-learning for work safety and fire protection. Expect to be online soon.
- As of 1st December protective gas masks against toxic dust, gas etc. will be available to collect in the same place and using the same procedure as protective glasses, gloves and other PPE.

IOCB Events 2022

- 4.–5. 11. Open House Days (IOCB)
- 8. 11. Workshop – Czech Centre for Phenogenomics (IOCB)
- 8. 11. PhD Career Workshop (IOCB)
- 9. 11. Lecture: Beatriz Navarro (IOCB)
- 10.–12. 11. Liblice 2022 (Špindlerův Mlýn)
- 15. 11. Invited Lecture: Daniel G. Anderson (IOCB)
- 24. 11. 10th Anniversary of Gilead CZ (IOCB)
- 2. 12. Advent in the Campus (Kampus Dejvice)
- 16. 12. IOCB Christmas party (Old waste water treatment plant in Bubeneč)

2023

- 16. 2. IOCB Ball
- 31. 5. Symposium: 70th Anniversary of IOCB Prague

IOCB Ball

- First IOCB ball on the occasion of the 70th Anniversary
- 16th February 2023 (19:30–0:30), Palác Žofín – 2 halls

Program

- Director's speech
- Music: Jan Smigmator Big Band, Jakub Šafr & Swing Trio Avalon, Electro Swing Allstars, DJ Aleš Matoušek
- Ceremonial opening dance by Jana Pokorná and Musalovi
- Dance lesson by Swing Busters, Midnight surprise
- Host: Simona Babčáková
- Tickets will be available by the end of the year to employees
- Partners will be allowed



Mtgs with GLs – 2022 Schedule

- January 28
- February 18
- March 31
- April 29
- May 20
- June 17
- September 22
- November 4
- ~~November 18~~
- December 15

Always on Fridays at 10:00 am in the Director's Boardroom A.4.01

Thank you!