

IOCB Local Codes of Practice For GMO Laboratories, pursuant to Act No. 78/2004 Coll., Addendum 4

English version

a-c) Competent authority

Institute of Organic Chemistry and Biochemistry of the CAS

Address: Flemingovo nám. 542/2, Prague 6, 166 10

ID 61388963

Director: Prof. RNDr. Jan Konvalinka, CSc.

Tel: 220183333, email: uochb@uochb.cas.cz

d) Expert advisor

RNDr. Milan Kožíšek, Ph.D., Institute of Organic Chemistry and Biochemistry of the CAS

Mailing addr: Flemingovo nám. 542/2, Prague 6, 166 10, tel: 220 183 518 email:

milan.kozisek@uochb.cas.cz

Home address: Vrší 393/3, Prague 8, 182 00

e) Permitted risk classes for contained use

Risk classes I and II

f) Person responsible for contained use

Director: Prof. RNDr. Jan Konvalinka, CSc.

Tel: 220183333, email: uochb@uochb.cas.cz

g) Traits and purposes of work, description of technical control measures for contained use

Individual laboratory suites within the new premises of buildings A and C are closed with locked doors. Access is restricted to authorized personnel carrying preprogrammed cards only. Deep-freezer rooms and cultivation rooms are under permanent locks; access for their use is authorized only for persons listed below in section i); entry logs are kept and processed by computer.

The laboratory floors are resistant to aggressive chemicals and have a nonslip finish. The bench covers are acid resistant.

The methods used for waste inactivation in GMO laboratories are: autoclave sterilization or disinfection with a solution of hypochlorite or the brand-name disinfectants SAVO and Ajatin. Following inactivation, waste management is completed by the contracting company SITA Bohemia a.s.

h) Procedures to be followed at work

The work is performed for scientific/research purposes. The general approach lies in construction of plasmid vectors for transformation of bacteria (*Escherichia coli*), yeast (*Saccharomyces cerevisiae*, *Pichia pastoris*), or baculoviruses as well as in a variety of further activities related to the use of microorganisms to solve scientific problems. This is the case of the creation of DNA constructs of many types, mainly novel and ad hoc developed, enabling transformation of bacteria or yeast with various genes. In view of the ever-changing and multifaceted character of such work, it is difficult to precisely identify

and list the procedures involved: they will undergo modifications with different source materials and with varying purposes of the experiments. The procedures will also be inventively improved by researchers or updated according to reports in scientific literature.

i) List of appropriately trained personnel

All users must be given sufficient information, instruction, and training. The list of GMO users is attached as Addendum 1. The updated version is kept with IOCB's expert advisor.

j) Approximate quantities of GMOs for contained use

Taking the research character of the work into consideration, laboratory scale cultivations of GMO microorganism are carried out at a laboratory scale not exceeding 18 litres of cultures per day.

k) Arrangements and technical measures pertaining to the contained-use premises/workplaces

The arrangements are implemented in conformity with the organizational system of IOCB and with the assignment of teams to certain premises/workplaces.

Work with the bacteria *Escherichia coli*, yeasts *Pichia pastoris* and *Saccharomyces cerevisiae*, baculoviruses, and mammalian cell lines is restricted to laboratories A.01.11, A.01.13, A.01.55, A.01.57, A.01.62, A.01.63, A.01.64, A.01.78, A.01.79, A.1.06, A.1.21, A.1.22, A.1.23, A.1.24, A.1.34, A.1.47, A.2.28a, A.2.28b, A.2.29, A.2.48, A.2.92a, A.2.97 in building A and laboratories C.1.03, C.1.04, C.1.05, C.1.06, C.1.20, C.2.05, C.2.07, C.2.08, C.2.09, C.2.10, C.2.16, C.2.17, C.2.18, C.2.20, C.3.05, C.3.07, C.3.08, C.3.09, C.3.10, C.3.16, C.3.17, C.3.18, C.3.20, C.4.05, C.4.07, C.4.08, C.4.09, C.4.10, C.4.16, C.4.17, C.4.18, C.4.20 in building C.

GMO biohazard signs are posted at the doors of the workplaces. The laboratories are closed, and entry is enabled with preprogrammed cards. Laboratory surfaces have an easily cleanable finish. Gloves are used in all procedures involving GMOs. Waste and protective clothing are sterilized in an autoclave. Laboratories have their own specific equipment, which must not be transferred to premises not approved for work with GMOs. A steam sterilizer is located in building C. Control of insects and rodents is achieved with tightened closures of all doors and windows as well as by means of periodic disinfestation and rodenticide applied throughout the buildings.

l) Measures to take in case of accident or fire, incl. the Emergency Plan pursuant to § 20

In the event of fire, items or objects touched by flames are considered free of GMO. When items are retrieved from the building, the team leader decides which of them must be left due to suspected GMO contamination. In other regards, a fire or emergency is managed according to the IOCB Fire Alarm Directive and the IOCB Emergency Plan.

m) Duties of users at work (compliance with the work regulations; sanitation steps after work is finished; decontamination of instruments, protective equipment, and clothing)

The appropriate course of sanitation and decontamination after work is finished depends on the nature of the activities and on the team leader's decisions.

n) Supervision: system and frequency

Inspections will be carried out by the responsible persons 1 time per year (risk class I) and 4 times per year (risk class II). Logs will be kept for all inspections.

o) Maintenance staff duties

When performing maintenance at GMO workplaces, employees must observe these IOCB Local Codes and wear GMO protective clothing; they must comply with the instructions of the respective team leader.

p) Principles of good occupational safety and hygiene

Workers in GMO laboratories must wear protective clothing. No devices must be removed from GMO laboratories without first being subjected to preventive decontamination.

q) List of mandatory personal protective equipment and clothing with applicability specifications

Protective clothing must always be worn when working with GMOs; rubber gloves must be worn when working with microorganisms and DNA electrophoreses.

r) Conduct prohibited in the work area

Eating, drinking, and smoking are strictly prohibited in any GMO work area.

s) Rules of log keeping on the operation and sanitation of equipment and on control element tests

Each piece of equipment has a logbook in which data on its use, sanitation, and control element tests is recorded.

t) Prevention of entry of unauthorized persons

Entry to each laboratory is via lockable door(s) only, and the keys are carried by the laboratory personnel. Cultivation rooms are also locked at all times.

u) GMOs are not introduced into the environment

v) Period of validity

This English version of these Local Codes has the force of an IOCB internal regulation. It comes into force on the day of authorization by the Director and shall remain in force until retraction by the Director.

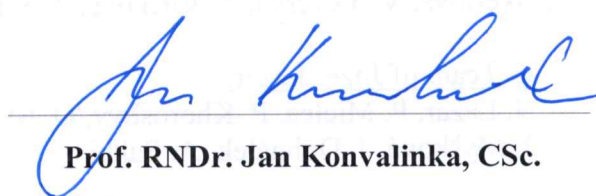
Compiled by:

Authorized on 18th January 2023



RNDr. Milan Kožíšek, Ph.D.

IOCB expert advisor



Prof. RNDr. Jan Konvalinka, CSc.

IOCB Director

Addendum 1. List of Appropriately Trained Personnel

a) Team of Iva Pichová:

I. Pichová, O. Heidingsfeld, A. Zábranský, J. Snášel, R. Hadravová, J. Dostál, E. Dolejší, D. Grundová, H. Zábranská, M. Doležal, R. Cubinková, O. Bulvas, M. Dedola, Z. Knejzlík, D. Kolářová, V. Llopis Torregrosa, S. Macháček, K. Pokorná, M. Tupec, O. Berehovská.

b) Team of Jan Konvalinka:

J. Konvalinka, M. Adámek, V. Aulichová, V. Bechyňský, J. Beranová, K. Blažková, K. Čermáková, K. Daňhelová, A. Diederichs, L. Ďurečiková, K. Grantz Šašková, J. Gregor, I. Klikarová, M. Kožíšek, M. Král, A. Kramná, V. Kramný, R. Kryštůfek, T. Majerová, M. Mejnar, A. Marcalíková, D. Musil, V. Nováková, P. Novotný, T. Orsmy, K. Parkan, M. Pehr, S. Petrežsélyová, J. Pokorná, M. Poukarová, K. Radilová, J. Sedláček, F. Sedlák, N. Sidej, J. Smith, J. Staňurová, J. Starková, A. Šimková, P. Šácha, K. Šrámková, M. Zamani

c) Team of Michael Mareš:

M. Mareš, M. Horn, A. Jílková, L. Marešová, M. Štajfová, J. Srp, J. Pytelková, R. Houštecká, J. Benýšek, M. Buša, A. Leontovič, L. Ulrychová, J. Dvořák, P. Rubešová, Z. Matoušková, K. Orsághová, I. Hánová, A. Vostoupalová, M. Apeltauer, Z. Šmotková, M. Beňová, L. Bieliková, M. Mikulů, A. Smith, J. Švéda, F. Wichterle, T. Zosinčuková.

d) Team of Kvido Strišovský:

K. Strišovský, H. Dvořáková, K. Trávníčková, J. Škerle, P. Rampírová, Š. Boháčová, J. Dohnálek, M. Fliegl, K. Bach, A. Martinez Fernandez, E. Poláchová.

e) Team of Evžen Bouřa:

E. Bouřa, J. Šilhán, D. Chalupská, M. Klíma, P. Škvára, B. Landová, J. Bartošová, V. Horová, P. Krafčíková, A. Hušková, K. Krejčová, E. Konkol'ová, A. Eisenreichová, J. Humpolíčková, L. Kloučková, P. Dostalík, V. Duchoslav, M. Hanigovský, D. Ivanovská, P. Trembuláková, M. Vaško, P. Fajtová, J. Chalupová, M. Fedák, J. Havlíková.

f) Team of Pavlína Řezáčová:

J. Brynda, S. Djukic, M. Fábry, M. Hořejší, E. Koutná, V. Křejiřířiková, V. Lux, M. Nedomová, V. Mrkvičková, M. Nováková, P. Pacht, K. Pospíšilová, I. Siegllová, J. Škerlová, V. Veverka, T. Vučková, Z. Vavřina, LM. Weinhold, M. Svoboda.

g) Team of Jozef Lazar:

J. Lazar, P. Miclea, P. Khoroshyy, O. Rybakova, V. Bělíková, A. Bondar, G. Kocurová, J. Myšková, J. Dohnálek, A. Sakhi

h) Team of Jiří Jiráček:

J. Jiráček, I. Selicharová, L. Žáková, S. Asai, P. Potalitsyn, K. Mitrová, J. Lin, Z. Páníková, L. Mrázková, T. Turnovská, A. Kertisová.

i) Team of Milan Vrábel:

M. Vrábel, R. Dzijak, S. Bellová.

j) Team of Gabriel Birkuš:

G. Birkuš, A. Brázdová, M. Pimková Polidarová, L. Vaneková, Z. Vavřina, H. Prouzová, P. Prouzová, J. Řeháková, A. Kratochvílová, J. Uskoba, M. Drška, M. Koutová.

k) Team of Zuzana Kečkéšová:

Z. Kečkéšová, V. Cutano, J. M. Gonzalez Morena, P. Jakoubě, B. Malečková, S. Machado, S. Escudeiro Lopes, W. Chung Phang.

l) Team of Hana Macíčková-Cahová:

H. Macíčková Cahová, B. Svojanoská, M. B. Mititelu, O. Nešuta, V. Serianni, P. Vopálenský, F. Mancini, H. Fernandez, J. Říha.

m) Team of Edward Curtis:

K. Švehlová, T. Streckerová, M. Volek, K. Pšenáková, R. Rangotis

n) Team of Robert Hanus:

O. Lukšan, J. Štáfková.

o) Team of Helena Mertlíková-Kaiserová:

H. Mertlíková Kaiserová, A. Dvořáková, J. Günterová, P. Hovorková, K. Chalupský, L. Jandová, J. Kozák, E. Kužmová, A. Magdolenová, M. Matoušová, K. Müllerová, L. Pospíšilová, T. Sanislo, T. Strmeň, M. Šmídková, E. Tloušťová, J. Voldřich, M. Zavřel, M. Žáček.

p) Team of Michal Hocek:

M. Krömer, M. Brunderová.

r) Team of Jiří Vondrášek:

V. Vetýšková, M. Zouharová, K. Poštulková, K. Boušová, K. Jirásková.

s) Team of Lenka Maletínská:

A. Pačesová, V. Charvát.

t) Team of Sebastian Zoll:

S. Zool, H. Sulzen, A. Merčiaková, K. Čáповá, A. Dhillon, A. Lacinová, M. Šafner, S. Kereiche.

u) Team of Tomáš Pluskal:

T. Pluskal, J. Smith, T. Damiani, V. Čerovský, L. Mutabdžija, M. Perkovič, T. Hebra, C. Brungs, A. Tekel.

v) Team of Jan Weber:

J. Weber, J. Hodek, J. Weberová, B. Lubyová, L. Aillot, M. Pávová, M. Zgarbová, B. Lapuníková, L. Ulrychová, E. Tikalová, S. Žáčková, K. Krulová, J. Tyrčlová.