



## MAIN FOCUS

**The Centre of Experimental Medicine** of the Slovak Academy of Sciences is focused on the integrated research into the causes, mechanisms of development and possibilities of prevention, diagnosis and treatment of societally important diseases with the emphasis on diseases of the cardiovascular and the nervous systems, metabolic disorders, mental disorders and mental health problems as well as diseases originating in the prenatal and early postnatal developmental periods. The Centre has also extensive expertise in toxicology and pharmacodynamics.



## CONTACT US

**Dúbravská cesta 9  
BRATISLAVA, SLOVAKIA**  
[www.cem.sav.sk](http://www.cem.sav.sk)

FOR IN VIVO SERVICES  
[mojmir.mach@savba.sk](mailto:mojmir.mach@savba.sk)  
+421-2-32295718

FOR IN VITRO SERVICES  
[helena.kandarova@savba.sk](mailto:helena.kandarova@savba.sk)  
+421-2-32295724

**FIRST-CLASS**  
SCIENTIFIC SERVICES

**PROFESSIONAL**  
CUSTOMER RELATIONS



**CENTRE  
OF EXPERIMENTAL  
MEDICINE**  
SLOVAK ACADEMY OF SCIENCES

SCIENTIFIC & CONTRACT  
RESEARCH SERVICES  
**TOXICOLOGY**

# SCIENTIFIC & CONTRACT RESEARCH SERVICES

## Toxicity testing according to the OECD Test Guidelines (TG)

Method	Description
In vivo studies*	
OECD TG 402	Acute Dermal Toxicity
OECD TG 404	Acute Dermal Irritation/Corrosion*
OECD TG 405	Acute Eye Irritation/Corrosion*
OECD TG 414	Prenatal Developmental Toxicity Study
OECD TG 420	Acute Oral Toxicity - Fixed Dose
OECD TG 421	Reproduction/Developmental Toxicity Screening Test
OECD TG 422	Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test
OECD TG 423	Acute Oral toxicity - Acute Toxic Class Method
OECD TG 425	Acute Oral Toxicity: Up-and-Down Procedure
In vitro studies	
OECD TG 431	In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method
OECD TG 439	In Vitro Skin Irritation: Reconstructed Human Epidermis Test Method
OECD TG 432	In Vitro 3T3 NRU Phototoxicity Test
OECD TG 492	Reconstructed human Cornea-like Epithelium (RhCE) test method for identifying chemicals not requiring classification and labelling for eye irritation or serious eye damage

\*only for specific cases that can't be resolved by in vitro methods

# other OECD methods available as per request

## Medical devices testing

Method	Description
ISO 10993-5	Biological evaluation of medical devices - Part 5: Tests for in vitro cytotoxicity (specific tests)
ISO 10993-23	Biological evaluation of medical devices - Part 23: Tests for irritation (specific tests)



The Centre has a leading role in the development of toxicology in Slovakia. It closely cooperates with the Slovak Toxicological Society SETOX. Main results of cooperation are organization of regular international interdisciplinary toxicological conferences TOXCON and publishing an international open-access journal "Interdisciplinary Toxicology", which is indexed in several well-known scientific databases (PubMed, PubMed Central, Elsevier - SCOPUS, Medline, EBSCO, FSTA, DOAJ, Chemical Abstracts Service (CAS), etc.)

## Cosmetic and pharmaceutical formulations testing

Method	Description
Skin tolerance testing	Skin tolerance testing of final formulations, raw materials and mixtures using 3D reconstructed human epidermis model.
Ocular tolerance testing	Ocular tolerance testing of final formulations, cosmetic raw materials and mixtures using 3D reconstructed human cornea model.
Mucosa tissue irritation/inflammation testing	Mucosa tissue (Oral, Gingival, Vaginal) tolerance testing of final formulations, cosmetic raw materials and mixtures using 3D reconstructed human mucosa models.
Phototoxicity testing	Phototoxicity testing on 2D and/or 3D tissue model (skin/eye) to assess phototoxicity and/or photo-protection of formulations, raw materials and mixtures
Markers of inflammation and sensitisation	Screening of inflammatory mediators release (e.g. IL-1a, IL-18) for screening of inflammatory potential of formulations, raw materials and mixtures



**GLP CERTIFICATE**  
FOR TOXICOLOGICAL & SAFETY STUDIES

## Trainings in selected toxicity testing methods

Method	Description
OECD TG 431	In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method
OECD TG 439	In Vitro Skin Irritation: Reconstructed Human Epidermis Test Method
OECD TG 432	In Vitro 3T3 NRU Phototoxicity Test
OECD TG 492	Reconstructed human Cornea-like Epithelium (RhCE) test method for identifying chemicals not requiring classification and labelling for eye irritation or serious eye damage
ISO 10993-5	Biological evaluation of medical devices -part 5: tests for in vitro cytotoxicity (specific tests)
ISO 10993-23	Biological evaluation of medical devices - part 23: tests for irritation (specific tests)
Skin tolerance testing	Skin tolerance testing of final formulations, raw materials and mixtures using 3D reconstructed human epidermis model.
Ocular tolerance testing	Ocular tolerance testing of final formulations, cosmetic raw materials and mixtures using 3D reconstructed human cornea model.
Mucosa tissue irritation/inflammation testing	Mucosa tissue (Oral, Gingival, vaginal) tolerance testing of final formulations, cosmetic raw materials and mixtures using 3D reconstructed human mucosa models.
Phototoxicity testing	Phototoxicity testing on 2D and/or 3D tissue model (skin/eye) to assess phototoxicity and/or photo-protection of formulations, raw materials and mixtures
Markers of inflammation and sensitisation	Screening of inflammatory mediator's release (e.g. IL-1a, IL-18) for screening of inflammatory potential of formulations, raw materials and mixtures
Basic 2D and 3D cultures training	1-week training course in handling 2D and 3D cultures in laboratory.

## Partner of the H2020 project LOGIC LAB

Molecular logic lab-on-a-vesicle for intracellular diagnostics. With excellent cross-disciplinary scientific and complementary training, we educate highly-skilled young scientists in the fields of chemistry, physics and biology.

**LOGICLab**