



Helena Kandárová

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Bratislava (Slovakia)

ABOUT ME

Dr. Helena Kandarova, ERT is a Senior Scientist at the Institute of Pharmacology and Toxicology, Centre of Experimental Medicine, Bratislava. She also holds a position at the Institute of Biochemistry and Microbiology at the Faculty of Chemical and Food Technology (FCHPT) in Bratislava. From 2007 - 2018, Dr. Kandarova held the position of Senior Scientist and General Acting Manager for EU at MatTek Corporation, USA. She established MatTek In Vitro Life Science Laboratories in Europe and led the company in the position of Executive Director between 2009 - 2018. Dr. Kandarova is an executive board member in several European toxicology oriented organisations and a member of the international expert panels. In 2020 she has been elected as president of the European Society for Toxicology in Vitro. Dr. Kandarova has been involved in many international projects aiming at the validation of 3D reconstructed human tissue models for topical toxicity and phototoxicity testing of chemicals, cosmetics, pesticides, and medical devices. She is a co-author for several internationally implemented protocols, that were adopted also into the OECD and ISO 10993 guidelines. She published over 50 papers and book chapters (H-index 19, over 1000 citations) and obtained several scientific awards related to the research aiming into the development and validation of alternative methods.

WORK EXPERIENCE

Senior scientist

Centre of Experimental Medicine, Slovak Academy of Sciences [01/07/2019 – Current]

City: Bratislava

Country: Slovakia

- development and validation of in vitro protocols for chemical and medical devices testing
- grant participation and management
- educational and training activities
- management and conductance of GLP studies in vitro

Assistant professor

Faculty of Chemical and Food Technology, Institute of Biochemistry and Microbiology [01/03/2020 – Current]

City: Bratislava

Country: Slovakia

- leading of Diploma work of Master students
- lecturer on selected themes related to tissue engineering, cell cultures and in vitro toxicology

Chief executive officer and owner

InVitroTox Consulting, s.r.o., Bratislava, Slovakia [01/06/2019 – Current]

City: Bratislava

Country: Slovakia

- Consulting in the field of in vitro toxicology
- Organisation of educational events related to the toxicology

Executive Officer and Director

MatTek In Vitro Life Science Laboratories, s.r.o., Bratislava, Slovakia [01/01/2009 – 31/12/2018]

City: Bratislava

Country: Slovakia

- Established and built up the EU subsidiary of MatTek Corporation in Slovakia
- Hired, trained and coached the key personnel of the EU facility
- Met and exceeded the annual business goals set by the corporation
- Assured sustainable business growth as demonstrated by annual growth in revenues of > 20%
- Achieved profitability of the EU site since the start of the commercial production.
- Increased the market share in the EU by 120 %
- Assured ISO 9001 certification of all the facility processes
- Represented company at scientific committees, international conferences and business meetings
- Led and supervised scientific projects that aimed at implementation of the technology into the regulatory frameworks (ICH, ISO and OECD).

Senior Scientist and Acting General Manager for EU

MatTek Corporation [01/01/2007 – 31/12/2018]

City: Ashland, MA

Country: United States

- Optimised testing protocols for topical toxicity testing (skin and eye)
- Managed international validation project on the EpiDerm Skin Irritation Test (OECD TG 439)
- Lead scientist in the EpiDerm Medical Devices protocol development and validation
- Scientific consultant and test method co-developer in the EpiOcular validation study for Eye Irritation Testing (OECD TG 432)
- Manager and business advisor for the EU related activities of MatTek Corporation
- Establisher of the training programs for the clients and scientists interested in 3Rs
- Participant and lead scientist on several international grants and grant applications

National Coordinator of the OECD Test Guidelines (TG) Program, Slovakia

Pro bono [2010 – 2012]

City: Bratislava

- Represented Slovak Republic at the OECD WNT meetings.
- Since 2010 National expert in the area of topical toxicity testing and OECD TG development.

Research associate

Federal Institute for Risk Assessment BfR [15/05/2003 – 15/05/2006]

City: Berlin

- Development, evaluation and validation of alternative methods for topical toxicity testing using wide range of commercially and non-commercially available reconstructed human tissue models.
- Involvement in ECVAM validation projects on Skin Irritation and Phototoxicity.
- Conductance of PhD thesis at BfR under the supervision of Dr. Manfred Liebsch and Prof. Monika Schaefer-Korting.

EDUCATION AND TRAINING

Academic Qualification Degree (IIA)

Slovak Academy of Science [2019 – Current]

Address: Dubravska cesta 9, 841 04 Bratislava (Slovakia)

<http://cem.sav.sk/index.php/en/cem/>

European Registered Toxicologist (ERT)

EUROTOX, Hellenic Society of Toxicology [2017 – Current]

<http://www.eurotox.com/>

Doctor of Science (PhD, Dr.rer.nat)

Freie Universität Berlin, Institut für Pharmazie [01/06/2004 – 01/06/2006]

Address: Königin-Luise-Straße 2 und 4, 14195 Berlin (Germany)

<https://www.fu-berlin.de/>

Master of Science (Ing.)

Faculty of Chemical and Food Technology, STU [01/09/1999 – 01/09/2001]

Address: Radlinskeho 9 , 812 37 Bratislava (Slovakia)

<https://www.fchpt.stuba.sk>

Bachelor of Science (BSc.)

Faculty of Chemical and Food Technology, STU [01/09/1996 – 01/09/1999]

Address: Radlinskeho 9, 812 37 Bratislava (Slovakia)

<https://www.fchpt.stuba.sk>

LANGUAGE SKILLS

Mother tongue(s):

Slovak , Czech

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

German

LISTENING C2 READING C2 WRITING B2

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Italian

LISTENING A2 READING A2 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

DIGITAL SKILLS

MS Office and Teams

Microsoft Word / Microsoft Excel / Outlook / Power Point / Microsoft Teams

Social Media and Online communication tools

Google tools (Gmail Drive Google forms etc) / LinkedIn / Facebook / Twitter / Skype

Other digital skills and programs

Accounting programs / Salesforce CRM / Web mastering and web design

PUBLICATIONS

Toxicological testing of a photoactive phthalocyanine-based antimicrobial substance.

[2020]

<https://www.sciencedirect.com/science/article/abs/pii/S0273230020301112>

Regulatory Toxicology and Pharmacology

Kejlová K., Bendová, H., Chrz, J., Dvořáková, M., Svobodová, L., Vlková, A., Kubáč, L., Kořínková, R., Černý, J., Očadlíková, D., Rucki, M., Heinonen, T., Jírová, D., Letašiová, S., **Kandarova, H.**, Kolářová, H. (2020). Toxicological testing of a photoactive phthalocyanine-based antimicrobial substance. Regulatory Toxicology and Pharmacology Volume 115, August 2020

Evaluation of the toxicity profiles of rare earth elements salts (lanthanides).

[2020]

<https://www.sciencedirect.com/science/article/abs/pii/S1002072119308646>

Journal of Rare Earths

Kejlova, K., Vlkova, A., Jirova, D., Dvorakova, M., Svobodova, L., **Kandarova, H.**, Letasiova, S. Kolarova, H., Heinonen, T., Mannerstrom M.,(2020). Evaluation of the toxicity profiles of rare earth elements salts (lanthanides). In Journal of Rare Earths, 2020, [article in press]. ISSN 1002-0721

Evaluation of the phototoxic and cytotoxic potential of TiO₂ nanosheets in 3D reconstructed human..

[2020]

<https://www.altex.org/index.php/altex/article/view/1435>

Alternatives to Animal Experimentation

Líšková, A., Letašiová, S., Jantová, S., Brezová, V., **Kandárová, H.** (2020). Evaluation of the phototoxic and cytotoxic potential of TiO₂ nanosheets in 3D reconstructed human skin model. Alternatives to Animal Experimentation, 2020, vol. 37, [article in press]. ISSN 1868-596X.

Tissue-on-a-Chip: Microphysiometry with Human 3D Models on Transwell Inserts

[2020]

<https://www.frontiersin.org/articles/10.3389/fbioe.2020.00760/full>

Frontieres - Biotechnology

C. Schmidt, J. Markus, H. **Kandarova** and J. Wiest (2020). Tissue-on-a-Chip: Microphysiometry with Human 3D Models on Transwell Inserts. Frontieres - Biotechnology. Front. Bioeng. Biotechnol., 04 August 2020

Sviluppo e validazione di una piattaforma innovativa per lo studio in vitro dei diversi...

[2020]

<https://www.ceceditore.com/sviluppo-e-validazione-di-una-piattaforma-innovativa-per-lo-studio-in-vitro-dei-diversi-meccanismi-di-assorbimento-intestinale/>

L'Integratore Nutrizionale,

Ilaria Pulsoni, Jan Markus, Seyoum Ayehunie, Silvia Scaglione, **Helena Kandarova**, Maurizio Aiello (2020). Sviluppo e validazione di una piattaforma innovativa per lo studio in vitro dei diversi meccanismi di assorbimento intestinale - Dispositivo fluidico multi-camera (MIVO®) con inserti di tessuto 3D. In L'Integratore Nutrizionale, 2020, vol. 23, no. 1, p. 38-45. ISSN 1127-6320.

In vitro demonstration of intestinal absorption mechanisms of different sugars using 3D organot...

[2020]

<https://www.altex.org/index.php/altex/article/view/1340>

ALTEX - Alternatives to Animal Experimentation

Marrella, A., Buratti, P., Markus, J., Firpo, G., Pesenti, M., Landry, T., Ayehunie, S., Scaglione, S., **Kandarova, H.** and Aiello, M. (2020). In vitro demonstration of intestinal absorption mechanisms of different sugars using 3D organotypic tissues in a fluidic device. In ALTEX - Alternatives to Animal Experimentation, 2020, vol. 37, [Epub ahead of print]. ISSN 1868-596X.

Behind the claim - In Vitro 3D human tissue models in the studies of cosmetics for "sensitive skin"

[2019]

https://www.teknoscienze.com/teks_article/in-vitro-3d-human-tissue-models-in-the-studies-of-cosmetics-for-sensitive-skin/

H&PC Today

Kandarova H., Jírová D. (2019). Behind the claim - In Vitro 3D human tissue models in the studies of cosmetics for "sensitive skin". H&PC Today - Household and Personal Care Today - vol. 14(2) March/April 2019.

ESTIV2018: 20th anniversary of the International Congress on In Vitro Toxicology.

[2019]

<https://pubmed.ncbi.nlm.nih.gov/31220529/>

Toxicology in Vitro

Vinken M., Suter-Dick L., **Kandarova H.** (2019). ESTIV2018: 20th anniversary of the International Congress on In Vitro Toxicology. *Toxicology in Vitro*. Jun 18; 60:293-295. doi: 10.1016/j.tiv.2019.06.005

Toxicity of food contact paper evaluated by combined biological and chemical methods

[2019]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233318307847>

Toxicology in Vitro

Kejlova K., Dvorakova M., Vavrous A., Sevcik V., **Kandarova H.**, Letasiova S., Sosnovcova J., Jirova D. (2019). Toxicity of food contact paper evaluated by combined biological and chemical methods. *Toxicology in Vitro*, Sep; 59:26-34. doi: 10.1016/j.tiv.2019.04.001

Preparation of irritant polymer samples for an in vitro round robin study

[2018]

<https://www.sciencedirect.com/science/article/pii/S0887233318300201>

Toxicology in Vitro

Coleman K.P., Grailer T.P., McNamara L.R., Rollins B.L., Christiano N.J., **Kandarova H.**, De Jong W.H.(2018). Preparation of irritant polymer samples for an in vitro round robin study, *Toxicology in Vitro*, 02 Feb 2018, 50:401-406. DOI: 10.1016/j.tiv.2018.01.018

Evaluation of the medical devices benchmark materials in the controlled human patch testing...

[2018]

<https://www.sciencedirect.com/science/article/pii/S0887233318300468>

Toxicology in Vitro

Kandarova H., Bendova H., Letasiova S., Coleman K.P., De Jong W.H., Jirova D.(2018). Evaluation of the medical devices benchmark materials in the controlled human patch testing and in the RhE in vitro skin irritation protocol, *Toxicology in Vitro*, 50

Pre-validation of an in vitro skin irritation test for medical devices using the reconstructed....

[2018]

<https://www.sciencedirect.com/science/article/pii/S0887233318300444?via%3Dihub>

Toxicology in Vitro

Kandarova H., Willoughby J.A., De Jong W.H., Letasiova S., Milasova T., Bachelor M.A., Breyfogle B., Handa Y., De la Fonteyne L., Coleman K.P. (2018). Pre-validation of an in vitro skin irritation test for medical devices using the reconstructed human tissue model EpiDerm™, *Toxicology in Vitro*, 50

Round robin study to evaluate the reconstructed human epidermis (RhE) model....

[2018]

<https://www.sciencedirect.com/science/article/pii/S0887233318300018>

Toxicology in Vitro

De Jong W.H., Hoffmann S., Lee M., **Kandarova H.**, Pellevoisin C., Haishima Y., Rollins B., Zdawczyk A., Willoughby J., Bachelor M., Schatz T., Skoog S., Parker S., Sawyer A., Pescio P., Fant K., Kim K.(2018). Round robin study to evaluate the reconstructed human epidermis (RhE) model as an in vitro skin irritation test for detection of irritant activity in medical device extracts. *Toxicology in Vitro*, 50

Reprint of "CON4EI: Selection of the reference chemicals for hazard identification....

[2018]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233318300717?via%3Dihub>

Toxicology in Vitro

Adriaens E., Alepee N., **Kandarova H.**, Drzewieckac A., Gruszka K., Guest R., Willoughby J.A., Verstraelen S., Van Rompay A.R. (2018). Reprint of "CON4EI: Selection of the reference chemicals for hazard identification and labelling of eye irritating chemicals. Toxicology in Vitro, 49

Reprint of "CON4EI: Bovine Corneal Opacity and Permeability (BCOP) test for hazard identification..

[2018]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233318300729>

Toxicology in Vitro 49

Verstraelen S., Maglennon G., Hollanders K., Boonen F., Adriaens E., Alepee N., Drzewiecka A., Gruszka K., **Kandarova H.**, Willoughby J.A., Guest R., Schofield J., Van Rompay A.R.(2018). Reprint of "CON4EI: Bovine Corneal Opacity and Permeability (BCOP) test for hazard identification and labelling of eye irritating chemicals". Toxicology in Vitro, 49

Development of testing strategies for hazard identification and labelling for serious eye damage...

[2018]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233317302606>

Toxicology in Vitro

Adriaens E., Verstraelen S., Alepee N., **Kandarova H.**, Drzewiecka A., Gruszka K., Guest R., Willoughby J.A., Van Rompay A.R.(2018). CON4EI: Development of testing strategies for hazard identification and labelling for serious eye damage and eye irritation of chemicals. Toxicology in Vitro, 49

Evaluation of QSAR models for hazard identification and labelling of eye irritating chemicals

[2018]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233317302564>

Toxicology in Vitro

Geerts L., Adriaens E., Alepee N., Guest R., Willoughby J.A., **Kandarova H.**, Drzewiecka A., Fochtman P., Verstraelen S., Van Rompay A.R.(2018). CON4EI: Evaluation of QSAR models for hazard identification and labelling of eye irritating chemicals. Toxicology in Vitro, 49

CON4EI: CONSortium for in vitro Eye Irritation testing strategy - EpiOcular™ time-to-toxicity....

[2018]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233317302503?via%3Dihub>

Toxicology in Vitro

Kandarova H., Letasiova S., Adriaens E., Guest R., Willoughby J.A., Drzewiecka A., Gruszka K., Alepee N., Verstraelen S., Van Rompay A.R.(2018). CON4EI: CONSortium for in vitro Eye Irritation testing strategy - EpiOcular™ time-to-toxicity (EpiOcular ET-50) protocols for hazard identification and labelling of eye irritating chemicals. Toxicology in Vitro, 49

CON4EI: Short Time Exposure (STE) test method for hazard identification and labelling...

[2018]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233317302187?via%3Dihub>

Toxicology in Vitro

Adriaens E., Willoughby J.A., Meyer B.R., Blakeman L.C., Alepee N., Fochtman P., Guest R., **Kandarova H.**, Verstraelen S., Van Rompay A.R.(2018). CON4EI: Short Time Exposure (STE) test method for hazard identification and labelling of eye irritating chemicals. Toxicology in Vitro, 49

CON4EI: Slug Mucosal Irritation (SMI) test method for hazard identification and labelling...

[2018]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233317302497?via%3Dihub>

Toxicology in Vitro

Adriaens E., Guest R., Willoughby J.A., Fochtman P., **Kandarova H.**, Verstraelen S., Van Rompay A.R.(2018). CON4EI: Slug Mucosal Irritation (SMI) test method for hazard identification and labelling of serious eye damaging and eye irritating chemicals. Toxicology in Vitro 49

CON4EI: EpiOcular™ Eye Irritation Test (EpiOcular™ EIT) for hazard identification and labelling...

[2018]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233317301881?via%3Dihub>

Toxicology in Vitro

Kandarova H., Letasiova S., Adriaens E., Guest R., Willoughby J.A., Drzewiecka A., Gruszka K., Alepee N., Verstraelen S., Van Rompay A.R.(2018). CON4EI: EpiOcular™ Eye Irritation Test (EpiOcular™ EIT) for hazard identification and labelling of eye irritating chemicals. Toxicology in Vitro, 49. June 2018, Pages 21-33

CON4EI: SkinEthic™ Human Corneal Epithelium Eye Irritation Test

[2018]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233317301613?via%3Dihub>

Toxicology in Vitro

Van Rompay A.R., Alepee N., Nardelli L., Hollanders K., Leblanc V., Drzewiecka A., Gruszka K., Guest R., **Kandarova H.**, Willoughby J.A., Verstraelen S., Adriaens E.(2018). CON4EI: SkinEthic™ Human Corneal Epithelium Eye Irritation Test (SkinEthic™ HCE EIT) for hazard identification and labelling of eye irritating chemicals. Toxicology in Vitro, 49

53rd EUROTOX Congress: Connecting for a Safer Future.

[2017]

<https://www.sciencedirect.com/science/article/abs/pii/S0378427417311608?via%3Dihub>

Toxicology Letters

Kandarova, H. and Iscan, M. (2017) 53rd EUROTOX Congress: Connecting for a Safer Future. EUROTOX 2017 Supplement, Foreword. Toxicol Lett. 2017 Oct 20; 280 Suppl 1:S1. doi: 10.1016/j.toxlet.2017.08.001. Epub 2017 Aug 8.

CON4EI: Bovine Corneal Opacity and Permeability (BCOP) test...

[2017]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233317301844>

Toxicology in Vitro 44

Verstraelen S., Maglennon G., Hollanders K., Boonen F., Adriaens E., Alepee N., Drzewiecka A., Gruszka K., **Kandarova H.**, Willoughby J.A., Guest R., Schofield J., Van Rompay A.R.(2017). CON4EI: Bovine Corneal Opacity and Permeability (BCOP) test for hazard identification and labelling of eye irritating chemicals. Toxicology in Vitro 44.

CON4EI: Selection of the reference chemicals for hazard identification...

[2017]

<https://www.sciencedirect.com/science/article/abs/pii/S0887233317301492>

Toxicology in Vitro 44

Adriaens E., Alepee N., **Kandarova H.**, Drzewieckac A., Gruszka K., Guest R., Willoughby J.A., Verstraelen S., Van Rompay A.R.(2017). CON4EI: Selection of the reference chemicals for hazard identification and labelling of eye irritating chemicals. Toxicology in Vitro 44.

Two novel prediction models improve predictions of skin corrosive sub-categories by test methods...

[2015]

<https://linkinghub.elsevier.com/retrieve/pii/S0887233315002106>

Toxicology in Vitro 29

Desprez B., Barroso J., Griesinger C., **Kandárová H.**, Alépée N., Fuchs H.W (2015). Two novel prediction models improve predictions of skin corrosive sub-categories by test methods of OECD Test Guideline No. 431, Toxicology in Vitro, Volume 29, Issue 8, December 2015, Pages 2055-2080,

Non-animal models of epithelial barriers (skin, intestine and lung) in research, industrial...

[2015]

<https://www.altex.org/index.php/altex/article/view/214>

ALTEX 32

Sarah Gordon, Mardas Daneshian, Joke Bouwstra, Francesca Caloni, Samuel Constant, Donna E Davies, Gudrun Dandekar, Carlos A Guzman, E Fabian, Eleonore Haltner, Thomas Hartung, Nina Hasiwa, P Hayden, **H Kandarova**, S Khare, HF Krug, C Kneuer, Marcel Leist, G Lian, U Marx, Marco Metzger, K Ott, P Prieto, MS Roberts, EL Roggen, T Tralau, C van den Braak, Heike Walles, Claus-Michael Lehr (2015). Non-animal models of epithelial barriers (skin, intestine and lung) in research, industrial applications and regulatory toxicology. *Altex*, 32, 4, 327-378.

Application of MatTek In Vitro Reconstructed Human Skin Models

[2015]

<https://www.liebertpub.com/doi/abs/10.1089/aivt.2015.0012>

Applied In Vitro Toxicology

Hayden, Patrick J; Bachelor, Michael; Ayehunie, Seyoum; Letasiova, Silvia; Kaluzhny, Yulia; Klausner, Mitchell; **Kandárová, Helena** (2015). Application of MatTek In Vitro Reconstructed Human Skin Models for Safety, Efficacy Screening, and Basic Preclinical Research. *Applied In Vitro Toxicology*, 1, 3, 226-233, 2015, Mary Ann Liebert, Inc. 140 Huguenot Street, 3rd Floor New Rochelle, NY 10801 USA"

The EpiOcular Eye Irritation Test (EIT) for hazard identification and labelling of eye irritating..

[2015]

<https://journals.sagepub.com/doi/10.1177/026119291504300205>

ATLA 43

Kaluzhny, Y., **Kandárová, H.**, Handa, Y., DeLuca, J., Truong, T., Hunter, A., Kearney, P., d'Argembeau-Thornton, L., Klausner, M. (2015). The EpiOcular Eye Irritation Test (EIT) for hazard identification and labelling of eye irritating chemicals: protocol optimisation for solid materials and the results after extended shipment. *Alternatives to Laboratory Animals : ATLA* 2015, 43(2):101-127]

Eye Irritation Test (EIT) for Hazard Identification of Eye Irritating Chemicals using ...

[2015]

<https://www.jove.com/t/52979/eye-irritation-test-eit-for-hazard-identification-eye-irritating>

JoVE - Journal of Visualized Experiments 102

Kaluzhny, Y., **Kandárová, H.**, d'Argembeau-Thornton, L., Kearney, P., Klausner, M. (2015). Eye Irritation Test (EIT) for Hazard Identification of Eye Irritating Chemicals using Reconstructed Human Cornea-like Epithelial (RhCE) Tissue Model. *JoVE (Journal of Visualized Experiments)*, 102, 2015

NETWORKS AND MEMBERSHIPS

European Society for Toxicology in Vitro - ESTIV President (2020-2024)

[The Netherland, 2004 – Current]

Slovak Toxicology Society SETOX - Vice-President (2012 -2021), Co-founder of the in vitro division
[Slovak Republic, 2010 – Current]

Fed. of European Toxicologists and Societies in Toxicology EUROTOX, Chair of the Communication Com.
[EU, 2016 – Current]

EPAA Mirror Group, Member
[EU, 2020 – Current]

Chair of the Slovak National Platform for 3Rs
[Slovakia, 2018 – Current]

Member of EUSAAT, Member of the Audit Committee at EUSAAT (2012 – 2016)
[Austria , 2003 – Current]

US Society of Toxicology (US SOT), Full member
[USA, 2007 – Current]

ISO Technical Commision on medical devices
[Slovakia , 2013 – Current]

PARERE Network - National Expert, EURL ECVAM
[Slovakia, 2019 – Current]

National Coordinator of the OECD TG Program (2011 – 2013)
[Slovakia, 2011 – 2013]

PROJECTS

APVV-19-0591: Evaluation of Biocompatibility of Medical Devices and MD Materials In Vitro
[2020 – 2024]

Funding organisation: APVV

Main Contractor: CEM, SAS

Period:1.7.2020 - 31.16.2024

Role: Main Investigator

DS-FR-19-0048: TraiN-SafeMDs - Training Network for improving of the safety of medical devices

Funding organisation: APVV

Main Contractor: CEM, SAS

Period:1.3.2020 - 31.12.2021

Role: Main Investigator

Web: www.medicaldevicessafety.com

VEGA 2/0153/20: Use of 3D reconstructed tissue models in the biocompatibility assessment

Funding organisation: Ministry of Education, Science, Research and Sport of the Slovak Republic

Main Contractor: CEM, SAS

Period: 2020 - 2023

Role: Main Investigator

H2020 : Logic LAB - Marie Skłodowska-Curie grant agreement No 813920

Funding Organization: EU - H2020 Grant Scheme.

Received: 2018

Role: One of the 6 Project Partners - representative of MatTek IVLSL, left the project due to change of the workplace

Web: <http://logiclab-itn.eu/>

LNE grant scheme - ALT4EI - Alternative for Eye Irritation

Funding Organization: Flemish Institute for Technological Research

Period: 2017-2018

Main Contractor: VITO, Belgium

Role: Partner and Primary Investigator for the EpiOcular System

LRI-AIMT6: CON4EI - Eye irritation testing in vitro in practice – Database and testing strategy.

Funding Organisation: CEFIC

Period: 2015-2016

Main Contractor: VITO, Belgium

Role: Partner and Primary Investigator for the EpiOcular test system (2 different EpiOcular assays)

The ECVAM International Validation Study on In Vitro Tests for Acute Skin Irritation

Contract 21323

Organisation: JRC - European Centre for Validation and Evaluation of Alternative Methods (ECVAM)

Period: 2003-2007

Main Contractor: ZEBET at the BfR, Germany

Role: Junior Research staff in the ECVAM project responsible for the Development of the EpiDerm Skin irritation protocol (part of my PhD project) and its experimental validation,

ECVAM Photo-potency Feasibility Study

Contracts 19868-2002-09 F1ED ISP DE

Grant of the JRC - European Centre for Validation and Evaluation of Alternative Methods (ECVAM)

Period: 2002-2006

Main Contractor: ZEBET at the BfR, Germany

Role: Junior research staff responsible for the evaluation and optimization of the EpiDerm Phototoxicity test (part of my PhD project)

The Small Business Innovation Research (US SBIR) program

Reconstructed Skin Micronucleus Genotoxicity Assay, phase 2

Organization: Department of Health and Human Services

SBIR Grant #: 2R44ES015002-02A1

Received: 09/28/09

Role: Collaborator

<https://www.sbir.gov/sbirsearch/detail/226440>

In Vitro Assay to Determine Skin Corrosivity Packing Groups, Phase 1

Organization: Department of Health and Human Services

SBIR Grant #: 1R43ES017178-01

Received: 04/03/2008

Role: Collaborator

<https://www.sbir.gov/sbirsearch/detail/226434>

In Vitro Human Airway Model for Regulatory Toxicity Testing

Organization: Department of Health and Human Services

SBIR Grant #: 2U44ES014312-04

Received: 2017 – lasts till 02/28/2020

Role: Collaborator - left the project in 2018 (change of the workplace)

<https://www.sbir.gov/sbirsearch/detail/1247805>

Internal R&D projects of MatTek IVLSL - Industrial research

Organization: MatTek In Vitro Life Science Laboratories, s.r.o.

Period: 2012-2018

Overall Grant Amount: can not be disclosed

Role: Main Investigator, Project manager

HONOURS AND AWARDS

2020 - UNECSO-L'OREAL Woman in Science - Talents program 2020, Honorable mention in category over 35 years

UNECSO-L'OREAL

2020 - Lush Prize - Commended Project

Lush Prize

Project: In Vitro Irritation Testing of Medical Devices

Category: Lobbying

2019 US SOT - Best Medical Device Paper Award

2018 EUSAAT Invited Keynote Lecture on Career Development in Toxicology

EUROTOX 2017 Congress president

2017 US SOT - Best Medical Device Abstract Award

2014 Colgate-Palmolive In Vitro Toxicology Lecture for Students - US SOT

2012 Four Paws poster award - EUSAAT Congress

2007 Linz Congress poster award

CONTINUOUS EDUCATION

Good Laboratory Practice Course, SNAS, Bratislava Slovakia (Certificate)

[2020 - Current]

Work with toxic and highly toxic substances

[2020 - Current]

Safety Assessment of Cosmetics in the EU, Vrije University Brussels, Belgium (Exam, Certificate)

[2019 - Current]

Good Laboratory Practice Course, SNAS, Bratislava Slovakia (Certificate)

[2019 - Current]

Manufacturing Controlling, Controller Institute, Bratislava, Slovakia (Certificate)

[2011 - Current]

Double Entry Accounting, JASPIS, Bratislava, Slovakia (Exam, Certificate)

[2009 - Current]

6 Continuous Education courses taken at the EUROTOX and ESTIV events

[2006 - Current]

Safety Assessment of Cosmetics in the EU, Vrije University Brussels, Belgium (Exam, Certificate)

[2006 - Current]

DISSEMINATION OF THE SCIENCE - INVOLVEMENT IN ORGANIZING SCIENTIFIC CONFERENCES -

ESTIV 2022 Congress - Chair of the Congress, member of SPC and LOC

OECD EFSA Symposium on Implementation of Alternative Methods 2021 - Chair of SPC and LOC

TOXCON 2018 - member of the SPC and LOC

ESTIV 2018 - member of the SPC

EUSAAT 2018 - member of the SPC

EUROTOX 2017 - President, member of the SPC and LOC

EUROTOX 2016 - member of the SPC

TOXCON 2016 - member of the SPC and LOC

ESTIV 2016 - member of the SPC

EUSAAT 2015 - member of the SPC

World Congress on Alternatives to Animal Experiments 2015 - member of the SPC and LOC

TOXCON 2014 - member of the SPC and LOC

TOXCON 2012 - member of the SPC and LOC

EUSAAT 2013 - member of the SPC, Co-organizer

EUSAAT 2012 - member of the SPC

TOXCON 2010 - member of the SPC and LOC

Other educational events, training courses and teaching:

Involvement in organizing educational events, training courses and teaching: In the period 2006-2020 participation at more than 60 training courses for young scientists (organized and co-organised). List available per request.

BOOK CHAPTERS AND BOOKS

Book Chapters

1. **Kandarova H.** and Hayden P. (2021). Standardized Reconstructed Skin Models in Toxicology and Pharmacology: State of the Art and Future Development. Book chapter 417. Handbook of Experimental Pharmacology.
2. Spielmann H. and **Kandarova H.** (2021). Integration of Advanced Technologies into Regulatory Toxicology. In: Reichl FX., Schwenk M. (eds) Regulatory Toxicology. Springer, Berlin, Heidelberg.
3. Spielmann H. and **Kandarova H.** (2021). International Regulation of Toxicological Test Procedures. In: Reichl FX., Schwenk M. (eds) Regulatory Toxicology. Springer, Berlin, Heidelberg.
4. Červinka, M., **Kandarova, H.**, Forgacs, Z., Śladowski, D.: Chapter 2.6 - The Three Rs and Alternatives in the Visegrád (V4) Countries (2019). In: The History of Alternative Test Methods in Toxicology. Edited by Michael Balls, Robert Combes and Andrew Worth. 2019, Pages 59-70
5. **Kandarova H.** and Liebsch M. (2017). The EpiDerm Phototoxicity Test (EpiDerm H3D-PT) – book chapter 35 In: Alternatives for Dermal Toxicity Testing. Editors: Eskes, Ch., van Vliet, E., Maibach, H., 592 pages. ISBN 978-3-319-50351-6
6. **Kandarova H.** and Liebsch M. (2017). The EpiDerm™ Skin Corrosion Test (EpiDerm™ SCT) – book chapter 9. In: Alternatives for Dermal Toxicity Testing. Editors: Eskes, Ch., van Vliet, E., Maibach, H., 592 pages. ISBN 978-3-319-50351-6
7. **Kandarova H.** and Liebsch M. (2017). The EpiDerm™ skin irritation test (EpiDerm™ SIT) – book chapter 3. In: Alternatives for Dermal Toxicity Testing. Editors: Eskes, Ch., van Vliet, E., Maibach, H., 592 pages. ISBN 978-3-319-50351-6
8. Hayden, P. J., Bachelor, M., Klausner, M. and **Kandárová, H.** (2016) Predicting Organ Toxicity In Vitro, in Drug Discovery Toxicology: From Target Assessment to Translational Biomarkers (eds Y. Will, J. E. McDuffie, A. J. Olaharski and B. D. Jeffy), John Wiley & Sons, Inc, Hoboken, NJ. doi: 10.1002/9781119053248.ch12

Books

Advances in Toxicology : Textbook for advanced toxicology course - Vol. 2. Editor: Mojmír Mach.
Authors: Mojmír Mach, Emanuela Corsini, Helena Kandárová, Ján, Sedlák, Michal Pastorek. Bratislava: Slovak Toxicology Society SETOX , 2012, 152 p. ISBN 978-80-969474-5-4

PUBLISHING AND EDITORIAL BOARDS ACTIVITIES

Dr. Helena Kandarova is author of > 50 papers in scientific journals indexed in WoS and Scopus

H-index (Scopus): 19

Citations (Scopus): 1051

Scopus ID: <https://www.scopus.com/authid/detail.uri?authorId=8881692100>

ORCID ID: <https://orcid.org/0000-0002-6926-1343>

Guest Editor of the Supplements

EUROTOX 2017 (Toxicology Letters), ESTIV 2018 Conference (Toxicology in Vitro), ESTIV 2022 Conference (Toxicology in Vitro)

Co-editor:

- Jana Navarová, Helena **Kandárová**, Mojmír Mach (**2014**). Connecting for safer Europe : 19th Interdisciplinary toxicological conference. Programme & abstracts. Interdisciplinary toxicology 7 (S1)
- Jana Navarová, Helena **Kandárová**, Mojmír Mach (**2012**). TOXCON 2012. Toxicology at the crossroad : 17th Interdisciplinary toxicological conference and Advanced toxicological course. The High Tatras, Slovakia. Stará Lesná - hotel Academia, August 27-31, 2012. Programme and abstracts. Interdisciplinary Toxicology 5 (S1)
- Mojmír Mach, Helena **Kandárová**, Jana Navarová, Eduard Ujhazy, Michal Dubovický (**2010**). TOXCON 2010: Borderless toxicology. 15th Interdisciplinary toxicological conference & advanced toxicological course. The High Tatras Slovakia, Stará Lesná - Hotel Academia, September 6-10, 2010. Interdisciplinary toxicology 3 (1). 1337-6853

Editorial Boards:

- Interdisciplinary Toxicology (Field Editor), Current Research in Toxicology (Field Editor), The EuroBiotech Journal (Field Editor), Frontiers in Toxicology - In Vitro Toxicology (Associate Editor), ATLA - Alternatives to animal experimentation (Associate Editor), Skin Pharmacology and Physiology (EB member),

Scientific reviewer:

ATLA, Skin Pharmacology and Physiology, Toxicology in Vitro, Regulatory Pharmacology and Toxicology, Interdisciplinary toxicology,

Experimental Dermatology, Cutaneous and Ocular Toxicology, Scientific Reports - Nature

LIST OF PAPERS PUBLISHED IN THE 5 PAST YEARS IS GIVEN IN THE SECTIONS PAPERS AND BOOKS.

FULL LIST OF PAPERS IS AVAILABLE AT www.helenakandarova.com