

RECETOX NEWS

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The RECETOX NEWSLETTER is a quarterly newsletter by the Research Centre for Toxic Compounds in the Environment (RECETOX), Brno, Czech Republic

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**Activities of the Stockholm Convention
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Calendar of Events

- 8 September** Days of Chemistry, Brno, Czech Republic
11 September 2018 2nd ERA Planet meeting, Geneva, Switzerland
14 September 2018 Open Day at Masaryk University for secondary school students, Brno
17 - 21 September 2018 Expert mission on mercury to Serbia, Belgrade, Serbia
17 - 21 September 2018 14th meeting of the POPRC, Rome, Italy
26 September 2018 Brno Health Days 2018, RECETOX in Mahen library, Brno
26 - 27 September 2018 Gaudeamus Fair (European Fair of university and tertiary education), Nitra, Slovakia
27 September 2018 2nd meeting of the HBM4EU Governing Board, Vienna, Austria
28 September 2018 High level panel at the Human Biomonitoring Conference, Vienna, Austria
5 October 2018 Science Night, Brno, Czech Republic
16 -18 October 2018 CEE regional meeting in preparation to the COP2 of the Minamata Convention, Chisinau, Moldova
23 - 25 October 2018 Education Fair - Gaudeamus 2018, Brno Fair Grounds, Czech Republic
25 October 2018 26th meeting of the Council of the National Centre for Toxic Compounds, Prague, Czech Republic
25 October 2018 7th meeting of the National Panel for Human Biomonitoring (HBM4CZ), Prague
28 October 2018 - 2 November 2018 2nd Expert mission on mercury to Serbia, Belgrade, Serbia
1 November 2018 Excursion to Brno-Modřice Waste water treatment plant
6 November 2018 Secondary school Excursion to RECETOX
5 - 9 November 2018, Study visit from Kazakhstan - Sharing experience on Minamata Convention, Prague and Brno
15-16 November 2018 Annual Meeting of SCRC - BCRC directors, Geneva, Switzerland
17 November 2018 Human Exposure to and Environment Concentration of Mercury - outcomes and lessons learned, Geneva, Switzerland
17 November 2018 Science, Surveillance and Management Efforts to Support Successful Implementation of the Minamata Convention on Mercury, University of Geneva, Geneva, Switzerland
19 - 23 November 2018 Minamata Convention on Mercury (COP2), Geneva, Switzerland
12 - 14 December 2018 Small intersessional working group on polychlorinated biphenyls meeting, Prague, Czech Republic
January-February 2019 Expert meeting for POPs monitoring capacity building projects, RECETOX, Brno
25 - 28 March 2019, CEE regional consultations prior Basel, Rotterdam and Stockholm Conventions, RECETOX, Brno
2 - 4 April 2019 SAICM OEWG3, Montevideo, Uruguay
29 April - 10 May 2019, joint meeting of the Basel, Rotterdam and Stockholm Conventions, CIGG, Geneva, Switzerland

Úvodník

Dear readers of our quarterly RECETOX news,

this autumn issue focusses on human health. It looks at it from a number of perspectives - through research investigating human health impacts using a wealth of information and expertise that was generated during the first 35 years of the RECETOX. It uses our tools, environmental chemistry, ecotoxicology, new analytical methods for monitoring toxic chemical substances in the environment and in various types of matrices. There is also information on new projects combining our long-term knowledge and disciplines, complementing them with newly established teams for epidemiology, biostatistics or biomedicine, new approaches or newly developed IT tools. All this allows us to tackle the questions on human health and on factors affecting human health asked by our partners in ministries, other research institutions or by authorities of our home city.

We also provide a traditional overview of our activities for experts and the public, and we look forward to a future cooperation with many of you, whether through a CELSPAC study, biomonitoring, or in use of our bio-banking facility that we are now constructing.

I wish you a nice reading of this RECETOX news,

Professor Jana Klánová
RECETOX Director





Investigating Health - the CELSPAC study in full swing

What is CELSPAC?

The CELSPAC (Central European Longitudinal Studies of Parents and Children) is a unique joint project between the Masaryk University and the Brno University Hospital (FN Brno). The project is a platform for surveys that deal with factors affecting the human health. Currently, we have two major undertakings - ELSPAC and TNG - and we are working on further studies.

The ELSPAC (The European Long-term Survey on Pregnancy and Childhood) study was conducted for over 20 years between 1991 and 2012 and involved more than 7,500 families from Brno and Znojmo in the Czech Republic. Cooperating with about a hundred people (teachers, dentists, pediatricians, nurses), the participants filled in over 200,000 questionnaires over the years that we computerized. We are now trying to re-engage with the ELSPAC participants and involve them in our current and future studies (see below for more details).

The TNG study (The Next Generation) is our current main research focus. It is a long-term cohort study investigating factors of the healthy development of children from their prenatal period. Pregnant mothers can enroll into our study at FN Brno maternity clinics contacting our TNG study assistants or by e-mail (info@celspac.cz).

News from the Epidemiological studies team

Under the leadership of Petra Vídeňská PhD, **a new study protocol was developed to identify the health determinants in early life.** The protocol covers immunity development in the neonatal and infant periods characterized by a high metabolic activity and dynamic development of the immune system. In addition, the effects of exposure factors in these periods may persist for life. The new study focuses on important health determinants such as colonization of the gastrointestinal tract by microorganisms, environmental exposure, nutrition habits

and maternal health. Biochemical and protein markers will be used to assess the effects on the child's organism. Microbiological analyzes will be supervised by Petra Vídeňská, data processing and analysis by Eva Budinská, analyses of adipokins and macronutrients by Assoc.Prof MUDr. Julie Bienertová-Vašků,

metabolomic analysis by PharmDr. Zdeněk Spáčil, analysis of protein markers by Veronika Vidová, and last but not least environmental exposure by Lisa Melymuk. This study is prepared for all mothers involved in the TNG and will be open for sign-up during autumn 2018.





Further, we would also like to re-engage with the participants of the ELSPAC study this winter. Within the framework of the Horizon 2020 Human Biomonitoring for Europe project (HBM4EU.eu) studying how chemicals get into the human body from the environment and what chronic diseases they can cause, a body composition, chemical exposure and their pathways as well as diet investigations will be performed. We will invite our young adults, participants in the original ELSPAC study, for a re-examination prepared in cooperation with the Faculty of Medicine and the Faculty of Sport Studies teams covered also by the OP VVV projects CETOCOEN Plus and RECETOX RI.

In addition, these same projects will work with school-age children. We will approach Brno schools to recruit 300 school-children for monitoring of the physical activity and fitness and for analyses of metabolites of toxic substances in their urine. Moreover, we will monitor indoor air and dust contamination in selected schools. We will carry out this project together with teams from the Faculty of Sport Studies at Masaryk University.

Finally, our team of the Population Studies also participates in the ICARUS international project (icarus2020.eu) investigating how changes in the environment and a climate change affect the health and quality of life of citizens in European cities. Hereby we would like to engage 100 Brno citizens of all ages, ideally consisting of several families living in one household. The case study participants will find out about their indoor and outdoor environment contamination and how their physical activities affect their exposure to harmful substances. Our colleagues Ondřej Mikeš, Céline Degrele, and Lucie Grohmanová oversee this ICARUS study at RECETOX.

We would like to invite you to follow the news from CELSPAC studies at www.celspac.com or on our CELSPAC Facebook profile www.facebook.com/celspac.cz.



science and policy
for a healthy future

HBM4EU prioritizing chemicals

The European Human Biomonitoring Initiative (HBM4EU) project was launched in January 2017. It involves 28 countries (including 24 countries of the EU including the Czech Republic) and the European Environmental Agency and European Commission. The aim of this EU Horizon 2020 project is to create a common and coordinated European platform for human biomonitoring. In doing so, the available expertise and data in the EU will be used at international and national levels, new data on priority substances will be obtained and a common European information and knowledge database on the exposure of the EU population to chemicals and their health impacts will be prepared (Information Platform for Chemical Monitoring Data (IpCHEM platform)).

An expert from the European Environment Agency shared with us the procedures of selecting priority chemicals under the HBM4EU project. In the first round, a joint a pan-European call among scientists and the decision-makers resulted into nine chemical substances selection in end 2016 to be examined in greater detail through the European initiative. The chemicals constituting the first list are now target of ongoing case studies and laboratory proficiency tests.

Catherine told us on the prioritization procedure used in the second round:

“HBM4EU is generating new knowledge on human exposure to chemicals in Europe and the resulting impacts on human health. This knowledge can support the efforts of policy makers to enhance chemical safety in Europe, as well as serving the needs of a range of stakeholders.

The selection of substances to be the subject of research activities under HBM4EU represents a critical step in the project. A 1st list of HBM4EU priority substances was identified, in collaboration with policy makers in 2016.

From 2017 to 2018, HBM4EU ran a second

round of prioritisation, guided by the imperative to produce knowledge for policy making in Europe and based on scientific evidence. HBM4EU partners consulted policy makers and stakeholders on the prioritisation of substances, so broadening participation to ensure the legitimacy and credibility of our work.

Prioritisation was guided by the imperative to produce knowledge for policy making in Europe and based on science. The HBM4EU National Hubs, members of the EU Policy Board and members of the Stakeholder Forum nominated substances via an online survey. Participants submitted evidence on hazards, exposure, public concern, regulatory status and the availability of technical methods for human biomonitoring.

At a stakeholder workshop in November 2017, stakeholders, scientists and policy makers had an open discussion on their priorities and concerns regarding specific substances.

In parallel, citizen outreach activities were employed to better understand public concerns regarding chemical safety and ensure the societal relevance of our work. These included an online survey and a focus group with citizens in Austria, described in the article on outreach to citizens in the HBM4EU newsletter .

These strands of input provided the basis for the prioritisation strategy, whereby evidence for nominated substances was systematically assessed against a set of prioritisation criteria. A ranked list of substances was discussed by the HBM4EU Management Board and the EU Policy Board, with agreement reached on nine groups of substances to be prioritised for monitoring and research in 2019-2020.“

Do you wish to know more on 2nd priority list? Please see project website: <https://www.hbm4eu.eu/the-substances/>

Dr. Catherine Ganzleben, European Environment Agency

Medically-oriented projects of Loschmidt Laboratories

The project **PredictSNP-Onco** is focused on the development of the new tool predicting the effect of mutation on protein function for the use in Pediatric Oncology. Newly developed tool will allow prediction of the effects, but will also navigate potential treatment using FDA-approved drugs. Analysis of the vast amount of data in as short as possible time will be achieved by using supercomputing infrastructure of IT4 Innovations. The project is carried out in collaboration with Professor Jaroslav Štěrba from Children's Hospital in Brno and Associate Professor Ondřej Slabý from CEITEC.

Aging-related diseases represent a key challenge of our society. The European population will be the oldest in the world by 2030. Within the **AD** and **STROKE projects**, we will develop novel laboratory techniques, microfluidic chips, biomaterials and biopharmaceuticals for prevention, diagnosis, and treatment of neurodegenerative and cerebrovascular diseases. We will combine expertise in molecular and cell biology, immunology

and protein chemistry with clinical neurology and product development by two leading Czech biotechnology companies BioVendor and CPN. The project is carried out in cooperation with a large network of research teams and clinical experts from the Czech Republic, including the RECETOX teams of Prof. Jana Klánová, Prof. Vojtěch Thon, Dr. Zdeněk Spáčil, and Dr. Petra Vídeňská.



credit: Ing. arch. Jiří Šerek

New academic staff recruited

We are proudly announcing results of the open call for new academic staff at RECETOX. There were 25 applicants, mainly from abroad. Some of our internal staff successfully steered through the selection process and these five colleagues took their new posts on the 1 October 2018. Congratulations!:

Two Associate Professors

Pavel Babica, PhD who recently completed his habilitation and received his diploma on 21 September 2018

Branislav Vrana, PhD

Three Assistant Professors

Lisa Emily Melymuk, Ph.D., PharmDr. Zdeněk Spáčil, Ph.D. Mgr. Peter Šebej, Ph.D.

Building a Biobank

During November 2018, a new RECETOX biobank facility will start construction works. Scheduled date of completion is spring 2020. However the construction works will bring us logistical challenges for our pavilion A29 and in the neighbouring INBIT, the resulting outcome will provide us with the necessary new space for further research and a long-term sample storage.

RECETOX Publications 2018

In 2018, RECETOX completed and published 124 articles in the peer reviewed literature so far. Majority of these papers is published in Q1 and Q2 quartils of the relevant research fields. A selection of six articles below covers the breadth of our research until early October 2018:

Beerens, K., Mazurenko, S., Kunka, A., Marques, S. M., Hansen, N., Musil, M., Chaloupkova, R., Waterman, J., Brezovsky, J., Bednar, D., Prokop, Z., Damborsky, J., 2018: Evolutionary Analysis is a Powerful Complement to Energy Calculations for Protein Stabilization. *ACS Catalysis* 8: 9420–9428.

Hvezdova, M.; Kosubova, P.; Kosikova, M.; Scherr, K. E.; Simek, Z.; Brodsky, L.; Sudoma, M.; Skulcova, L.; Sanka, M.;

Svobodova, M.; Krkoskova, L.; Vasickova, J.; Neuwirthova, N.; Bielska, L.; Hofman, J. Currently and recently used pesticides in Central European arable soils. *Science of the Total Environment* (2018), 613, 361-370.

Klanova, B.; Zlamal, F.; Pohorala, A.; Slaby, O.; Pikhart, H.; Bienertova-Vasku, J. Association of Glutathione S-Transferase Polymorphisms with Dietary Composition but Not Anthropometry in Obese as Well as Nonobese Individuals. *Journal of the American College of Nutrition* (2018), 37 (2), 87-92.

Melymuk, L.; Diamond, M. L.; Riddell, N.; Wan, Y.; Vojta, S.; Chittim, B. Challenges in the Analysis of Novel Flame Retardants in Indoor Dust: Results of the INTERFLAB 2

Interlaboratory Evaluation. *Environmental Science & Technology* (2018), 52 (16), 9295-9303.

Smedes, F. Silicone-water partition coefficients determined by cosolvent method for chlorinated pesticides, musks, organo phosphates, phthalates and more. *Chemosphere* (2018), 210, 662-671.

Tomsej, T.; Horak, J.; Tomsejova, S.; Krpec, K.; Klanova, J.; Dej, M.; Hopan, F. The impact of co-combustion of polyethylene plastics and wood in a small residential boiler on emissions of gaseous pollutants, particulate matter, PAHs and 1,3,5- triphenylbenzene. *Chemosphere* (2018), 196, 18-24.

Brno Health Days 2018

Brno Health Days are a week long whole-city event promoting a healthy lifestyle. The RECETOX supported this 24th annual activity taking place 23-29 September 2018 for the third time in a row. In cooperation with our colleagues from the Faculty of Sport Studies, we organized a full-day event entitled “Eating and Walking towards Health” in the Jiří Mahen Library in Brno on 26 September 2018.

Combining the theory and practice, the visitors listened first to a presentation on the Microbiome and its health effects by Petra Vídeňská followed by a tasting of fermented food from dairy products to a less traditional food for the Central Europe such as tempeh or miso soup. This experience sparked interest of the audience who vividly discussed with our experts. Then, Ondřej Mikeska from the Faculty of the Sport Studies team presented motional abilities of humans. His lecture was also coupled with an experiment. The audience could then undertake a walk diagnostics with Ondřej or find out the power of their handshake with Marta Gimunová from the same team. The whole day was a success and two rounds of the talks inspired many visitors.



An year at RECETOX - Gilberto Fillmann



Professor Gilberto Fillmann of the Oceanographic Institute at the University of Rio Grande, Brazil spent a year with us at RECETOX. Gilberto graduated in oceanography in Brazil and completed his PhD studies in Plymouth in 2001. In 2011-2016, he was a member of the Chemical Review Committee under the Rotterdam Convention. He is the author of more than 100 articles, supervised 8 PhD students, more than 20 master students, and well over 40 bachelors at the University of Rio Grande to date. In addition, he implemented more than 45

research projects for the government of Brazil. He arrived to RECETOX in August 2017 and a month after the end of his annual stay he wrote to us in response to a request of sharing his experience with RECETOX news readers: „I already miss RECETOX.“

And this is what Gilberto wanted to say: “I have never heard of Brno before meeting Professor Jana Klánová during a SETAC conference some years ago. Working all my life with aquatic environments, atmospheric contamination was still quite new to me. After sharing another couple of conferences with Jana, I was invited to spend my sabbatical year working at RECETOX. At the beginning it seemed to be quite a challenge to choose Czech Republic instead of Barcelona or Toronto, but everything was slowly pointing out that it was the right choice. Although having no expectations what so ever, the Masaryk University, Brno (and Czech Republic as a whole) were a very pleasant surprise. In fact, they surpassed all my expectations. The RECETOX was a very professional and friendly place to work, while Brno was amazingly cozy, lively and, culturally

speaking, just a perfect place to spend my time at. I doubt it would have been any better in another place.

During my sabbatical year at RECETOX, several classes of organic microcontaminants were analyzed in more than a 100 samples collected by LAPAN (Latin America Passive Atmospheric Sampling Network). I have also improved my knowledge about atmospheric and water passive sampling, and expanded my scientific network. The RECETOX was just perfect for that, since the analytical facilities were impressive and many researchers covering different fields of expertise were available there. In addition to the analytical results produced by Trace Lab and the on-going collaboration with Jana, other collaborations with the toxicology and modelling groups are on their way. A collaboration with the water passive sampling group have started by deploying samplers of Aqua-GAPS project and testing silicone rubber passive sampling techniques along Brazilian waters. I sincerely hope that all these initiatives will become as fruitful as possible and we have a chance to deepen the collaboration even more in the future.”

The Stockholm Convention Regional Centre in the Czech Republic (SCRC) hosted at RECE-TOX continues to provide support to other countries and regions, in particular in relation to monitoring, sampling and analyses of toxic chemicals in the environment and biota by providing capacity building projects and trainings. In addition, it supports development of the legal and institutional frameworks as well as generates data in monitoring program MONET and operates the global POPs data visualization portal www.pops-gmp.org

Regional meeting in Chisinau



The Stockholm Convention Regional Centre in the Czech Republic supported the Regional meeting for Central and Eastern Europe and Central Asia in Preparation for the second meeting of the Conference of the Parties to the Minamata Convention on mercury and subsequent information sessions on the three conventions (BRS) and SAICM held in Chisinau, Moldova 16-17 October 2018.

The regional consultations on mercury took place in the hotel Jolly Alon in the centre of the Moldovan capital Chisinau. There were 44 participants in the meeting representing the 18 countries of the Central and Eastern Europe and Central Asia (Armenia, Azerbaijan, Bosnia and Herzegovina, Czech Republic, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Moldova, Montenegro, Poland, Republic of Macedonia, Romania, Russian Federation, Serbia, Tajikistan and Ukraine), international organizations and agencies UNDP Astana office, SAICM Secretariat, BRS Secretariat and World Health Organization, the Stockholm Convention Regional Centre in the Czech Republic, and

civil society participants representing Zero Mercury Working Group, Global Alliance for Mercury free Dentistry and IPEN.

The consultations covered documents for COP2 including the budget and work-plan for the next biennium as well as cross-overs to the other chemicals and waste agreements and global issues to be discussed at the UNEA4 taking place March 2019. We also discussed the progress in the ratification in our region. While Armenia is only new Party intersessionally, Georgia, Azerbaijan and Ukraine hope their process could be finalized before end 2018 and Kazakhstan, Kyrgyzstan and Bosnia and Herzegovina target 2019.

In addition, information sessions on other matters of relevance in the chemicals and waste cluster such as Basel, Rotterdam and Stockholm Conventions and the Strategic Approach to International Chemicals Management were held back-to-back with the regional consultations on 18 October 2018 led by the respective secretariats and bureau members.



We would like to acknowledge the generous support of donors from Austria, Japan, Sweden and Switzerland who made this regional meeting possible.

SCRC Events in the Pipeline

A study tour for 14 experts from Kazakhstan to share experience of the Czech Republic in mercury management is organized in Prague, Slaný and Brno 5-9 November 2019 in the cooperation of the SCRC with UNDP Astana office and the Czech Ministry of the Environment. The study tour builds capacities in monitoring and chemical analyses of mercury in the environment as well as enhances understanding of the legislation. The delegation will undertake a field trip to the national observatory in Košetice as well as laboratory training in mercury analyses at RECETOX.

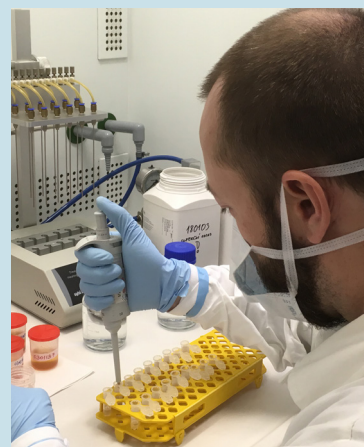
The RECETOX will speak at the **back-to-back event to the COP2** of the Minamata Convention in Geneva, Switzerland on 17 November 2018. We will showcase the preliminary results of the First Global Assessment of Laboratories Analyzing Mercury 2018 organized by UNEP with our support. There were more than 60 laboratories invited, 42 of them confirmed their participation and the deadline for providing the results was on 21 October 2018.

The SCRC Czech Republic will organize a **three day meeting of the Small inter-cessional working group on PCB** working on the assessment of progress in eliminating PCB in mid-December 2019. The resulting report will be considered by the next Meeting of the Parties to Stockholm Convention on Persistent Organic Pollutants in May 2019.

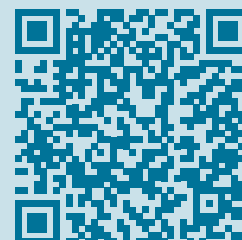
Trace Analyses Laboratories (TAL) at RECETOX

Use the Accredited Laboratories (EN ISO/IEC 17025:2005) and their expert team and infrastructure for the following services::

- Speciation analyses of toxic and essential elements in the environment (soil, sediments, water and air) and biota.
 - QA/QC system, validated analytical methods, professional team
 - Modern equipment for extractions, fractionations and purification of samples
 - State of the art instrumentation for analyses of endocrine disrupting chemicals, persistent organic pollutants, dioxins, furans, brominated flame retardants, steroids, explosives, and heavy metals
 - High quality results with very low detection limits
 - Long-term monitoring – air, precipitation, soil, water, sediments, needles, mosses and lichens
 - Air monitoring networks – MONET in Europe, Africa and Asia
 - Sampling by active and passive samplers
 - Sampling of precipitation and surface waters, sediments, soils and biotic materials
- Capacity building – made-to-measure training for researchers and laboratory experts on various instrumentation and in development of new analytical methods



Contact Head of TAL,
Dr. Petra Přebilová
(pribylova@recetox.muni.cz), for
more information



HBM Conference in Vienna

Under the auspices of the Austrian Presidency of the Council of the European Union, a conference “**Human Biomonitoring in Europe – science and policy for healthy citizens**” was organized in Vienna, Austria on 28 September 2018. Co-organized jointly with the European Commission Directorate General for Research and Innovation and HBM4EU project, this conference explained how human biomonitoring activities contribute to science, policy making and citizens’ awareness raising. There were also representatives of EU member states as well as European agencies on environment, food safety and chemicals along with other directorates at the European Commission and other key stakeholders. The meeting discussed the progress in harmonization of approaches through HBM4EU project, its new cooperations as well as challenges in HBM and risk assessment and options for the future sustainability of the human biomonitoring in Europe.

Further, the conference also comprised a **high level panel on the Future of Human Biomonitoring in Europe** highlighting the role of the science, countries needs and opportunities available at european agencies were discussed by France, Germany and the Czech Republic along with directors of EFSA, EEA and ECHA. Kateřina Šebková from RECETOX represented the Czech Republic underlined future tasks from the perspective and needs stemming from the provisions of the global environmental agreements protecting human health and the environment and mandates of international organizations. More on outcomes of the conference is available online: <http://www.hbm4eu-vienna2018.com>

Public Lecture Series in Brno-Medlány

Upon invitation of the local authorities and in cooperation with the Masaryk University 3rd age university, the RECETOX prepared a series of six lectures on "Health and food" targeting the elderly citizens in Brno-Medlány district.

Thursday lectures will open on 27 September 2018 9 am in Sýpka culture centre in Medlány. The participants will uncover a new topic of the RECETOX research each week - on intestinal bacteria, on food contamination, on alternatives to chemicals used in gardening, on cyanobacteria but also on our research taking place beyond the Polar Circle.

Photocontest for Students

Take part in our photography contest for on environment and the health. The task is to make a photograph of anything you believe affects your health, add a hashtag #recetox and share this picture on Facebook or Instagram. The contest is open for all students and its rules are available on our website: <http://recetox.muni.cz/index.php?pg=studium-a-vzdelani--soutez>

We look forward to seeing your photos!



Science Night 2018



A regular public awareness raising event advertising the science took place on Friday, October 5, 2018. The University Campus in Brno Bohunice was flooded by more than 2800 enthusiasts and the last ones left the premises after midnight. We had our Science Night stands and posters in the corridor at the level 2 next to our A29 building with a lot of games for kids as well as information for the teens and big ones on the development in research over the last one hundred years.

Our stand uncovered whether the contaminants released in the times of our grandparents' would affect us, looked at trends in concentrations of toxic chemicals in the Czech Republic and reveals why we shifted from test animals to cell lines. In addition, they could find out what connects food heated in the plastic vessels and printed cash receipts. Lot of interesting food for thoughts was available and if you did not make it this time, we look forward to seeing you at the next Science Night!