

ESTIV 2022 - Posters

Poster information

Please use the poster list below to find the board number of the poster. Poster presenters are requested to stand next to their posters for discussion during the poster sessions which will take place during the Welcome Reception, Wine Reception, breaks and lunches on all congress days. All posters should be set up before the congress starts on the first day. Posters should be dismantled before the end of the congress. The organization will remove all posters after the congress. If the poster is not collected it will be discarded after the congress.

Posters

P = Presenting Author

1. Bio-engineering, stem cells and disease models

P-1-1 The effect of methylmercury chloride on three germ layer formation during hiPSC-derived Embryoid Bodies development

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P-1-2 Preliminary evaluation of extracted collagen from food fish-processing side streams as an active ingredient for cosmetic application.

Lorenzo Dondero^{P1}, Giulia De Negri Atanasio¹, Federica Robino², Anastasiia Kharina², Micaela Tiso³, Francesca Rispo¹, Giorgia Allaria¹, Francesca Tardanico¹, Federica Turrini⁴, Federica Grasso⁴, Valentina Orlandi⁴, Matteo Zanotti Russo², Raffaella Boggia⁴, Elena Grasselli¹
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P-1-3 An innovative and robust strategy to generate hepatocyte-like cells from individual patients to investigate idiosyncratic hepatotoxicity of drugs

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P-1-4 Human peripheral neurons with enhanced nociceptor features for the study of pain-related dysfunctions

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¹ In vitro Toxicology and Biomedicine, Dept inaugurated by the Doerenkamp-Zbinden foundation at the University of Konstanz, Germany

P-1-5 Development of in vitro cardiotoxicity assessment using human iPS cell technology

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P-1-6 Stem cell toxicity is detected by cell internal indicator, SERPINB2

Seong-Kwan Kim^{P1,2}, Se-Ra Park^{1,2}, Soo-Rim Kim^{1,2}, In-Sun Hong^{1,2}
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P-1-7 Establishment of an in vitro rabbit neurosphere model to evaluate neurodevelopmental adverse effects induced by Intra-uterine growth restriction (IUGR) and to test future therapies

Britta Anna Kühne^{P1,2}, Paula Vázquez^{1,2}, Carla Loreiro², Fatima Crispí², Eduard Gratacós², Jesús Gómez-Catalán¹, Ellen Fritsche³, Miriam Illa², Marta Barenys^{1,2}
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P-1-8 Generation of Human Induced Pluripotent Stem Cell-derived Cardiomyocytes using the Aurora Kinase Inhibitor ZM447439

Su-Jin Lee^{P1}, Hyang-Ae Lee¹
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P-1-9 Mechanism of the Cyclic Stretch Induced Maturation of the Human Induced Pluripotent Stem Cell-derived Cardiomyocytes

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P-1-10 Cellular Model of Parkinson's Disease for Safety Testing of Selenium-Based Nanodelivery System

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P-1-11 Study the toxicity effect of Cycloporin A on angiogenesis progress of endothelial cells derived from induced pluripotent stem cells

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P-1-12 Discovery of a novel function, immune-modulatory factor CSF-2, improves the therapeutic effect of stem cells from cell damage

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P-1-13 Studying melanoma progression on a commensal 3D-skin model

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P-1-14 A novel in vitro 3D model of chronic kidney disease (CKD) in the proximal tubule for drug development and safety.

Elena Tasinato^{P1,2}, Kathryn Garner², Lyle Armstrong^{1,2}, Colin D A Brown²

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P-1-15 ACCURATE EVALUATION OF DRUG METABOLISM BY ENHANCED HEPATOCYTE FUNCTIONS IN A NEW OXYGEN-PERMEABLE PLATE WITH LOW DRUG ADSORPTION

Yasuyuki Sakai^{P1}, Masaki Nishikawa¹, Hiroyasu Itoh¹, Fumiya Tokito¹, Mathieu Danoy¹, Takumi Kawanishi², Hiroshi Arakawa², Yukio Kato², Tomoaki Matsugi³, Jingjing Yang³, Katsuhiko Esashika³, Toru Sumita³

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P-1-16 3D multi cell-type liver organoids as an alternative NAFLD model for drug safety assessment

Ferron Pierre-Jean^{P1}

¹ INSERM – U1241

P-1-17 A novel in vitro iPSC-based cardiac organoid model for personalized medicine.

Rosaria Santoro^{P1}, Luca Piacentini¹, Chiara Vavassori¹, Maura Brioschi¹, Cristina Banfi¹, Elena Donetti², Patrizia Benzoni², Andrea Barbuti², Giulio Pompilio¹

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P-1-18 Advanced in vitro model for drug induced kidney injury assessment – generation of kidney organoid for safety assessment purposes

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P-1-19 NEXT GENERATION TARGET ORGAN TOXICITY RISK ASSESSMENT: ENDOGENOUSLY TAGGED HUMAN STEM CELL REPORTERS FOR HIGH-CONTENT SCREENING OF OXIDATIVE STRESS RESPONSE

Tamara Danilyuk¹

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P-1-20 AN ANIMAL FREE, DEFINED WORKFLOW FOR HUMAN INDUCED PLURIPOTENT STEM CELLS

Yas Heidari¹

¹Bio-Techne

2a. Models, biomarkers and assays for endocrine disruption and developmental toxicity

P-2a-1 Chlorpyrifos impairs immortalized hypothalamic murine GnRH neurons at human relevant exposure levels

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P-2a-2 Evaluation of the local tolerance of flagellin aerosol therapy (FLAMOD) on primary human cell-based 3D in vitro nasal, bronchial, small-airway and alveolar models

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P-2a-3 Investigation on the reproducibility of the DIO1 inhibition in vitro method based on human liver microsomes

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P-2a-4 A closer look at the evaluation criteria of the H295R In vitro Steroidogenesis Assay test guideline

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P-2a-5 LC-MS based analysis of substance-induced displacement of thyroid hormone from its serum binding protein

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P-2a-6 Impact of interference with retinoid signaling on in vitro differentiation in human neural stem cell-based model

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P-2a-7 In Vitro pharmacologic profiling For Cosmetic Chemical Systemic Toxicity Safety Testing: A case study on Homosalate

Matthew Burbank^{P1}, Nicola Jane Hewitt², Gerry Kenna², Mareike Boettcher³, Catherine Mahony⁴, Johanna Ebmeyer³, Duncan Armstrong⁵, Audrey Noel-Voisin⁶, Anne Riu⁷, Gladys Ouedraogo⁷

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P-2a-8 Test Guideline No. 248 (XETA): a new OCDE approved alternative method for the identification of thyroid active chemicals

David Du Pasquier^{P1}, Gregory Lemkine¹

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P-2a-9 Relevant impact on the endocrine activity potential by modification of classical in vitro transactivation assays – exemplary case studies with two UV filters

Sylvie Emery^{P1}, Guillaume Lereaux¹, Sébastien Grégoire¹, Matthew Burbank¹, Nicola Jane Hewitt², Audrey Noel-Voisin³, Dagmar Bury³, Gladys Ouedraogo¹, Anne Riu¹

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P-2a-10 INCORPORATING A METABOLIZING SYSTEM AND TOPICAL APPLICATION TO IMPROVE THE VALUE OF IN VITRO ENDOCRINE DISRUPTION ASSAYS

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P-2a-11 The agonistic bioanalytical equivalent concentration: A novel tool for assessing the endocrine activity of environmental mixtures

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P-2a-12 ENDOCRINE DISRUPTION – BREAKING FREE FROM IN VIVO TESTING ORTHODOXY

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P-2a-13 PERFORMANCE LIMITATION OF OECD TEST NO. 455 ESTROGEN RECEPTOR TRANSACTIVATION ASSAY CLASSIFICATION CRITERIA USING VM7LUC4E2 CELL LINE.

Theo Le Godec^{P1}, Poornima Paramasivan¹, Michael McMahon², Matilda Bingham¹
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P-2a-14 A metabolomics approach to investigate in vitro the hepatotoxicity of drugs and the mechanisms so far involved

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P-2a-15 Validation of Endocrine Disrupter Assays at EURL ECVAM

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P-2a-16 THE ADIPOGENESIS MODEL OF HUMAN MESENCHYMAL STEM CELLS FOR THE DETERMINATION OF OBESOGENIC POTENTIALS OF SUNSCREENS

Minsoo Noh^{P1}, Sungjin Ahn¹, Seungchan An¹, In Guk Park¹, Seok Young Hwang¹, Junpyo Gong¹
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P-2a-17 INCREASING THE NUMBER OF AVAILABLE METHODS FOR THE DETECTION OF ENDOCRINE DISRUPTORS BEYOND EATS

Andrea RIVERO-ARZE^{P1}, Elise GRIGNARD¹, Philippe HUBERT¹
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P-2a-18 EVALUATION OF THE CYTOTOXICITY OF TETRAHYDROCANNABINOL, CANNABINOL AND CANNABIDIOL IN PRECURSOR CELLS OF THE GLIA

Rene Rocha^{P1}, Javier Figueroa¹, Diego Diaz¹, Boris Duffau¹, Ivan Triviño¹
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P-2a-19 Grouping of chemicals into mode of action classes by automated effect pattern analysis using the zebrafish embryo toxicity test

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P-2a-20 Study of Endocrine disruptors-related lipid and carbohydrate metabolism disorders in human hepatocytes

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P-2a-21 OXYSTEROLS PROFILE IN ZEBRAFISH EMBRYOS UPON EXPOSURE TO BISPHENOL A (BPA) AT 8 AND 24 HOURS POST-FERTILISATION

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P-2a-22 HIGH CONTENT SCREENING OF BISPHENOLS AND THEIR MIXTURES UNDER CONDITIONS OF LOW-INTENSITY ADIPOGENESIS OF HUMAN MESENCHYMAL STEM CELLS (hMSCs)

Kalle Norgren¹, Astrud Tuck¹, Antero Vieira Silva¹, Paula Burkhardt¹, Mattias Öberg¹, Vesna Munic Kos^{P1}

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P-2a-23 Reproductive and developmental adverse effects of complex real-life mixtures in human-relevant cell-based assays

Andreas Frederik Treschow^{P1}, Yanying Ma¹, Maria João Valente¹, Maria Margalef², Maria König³, Solène Motteau⁴, Gaud Dervilly⁴, Ronan Cariou⁴, Beate I. Escher³, Marja Lamoree², Jean-Philippe Antignac⁴, Anne Marie Vinggaard¹

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P-2a-24 Teratogenic potential of Cosmetics: Building and Optimize a toolbox to develop an ITS

Matthew Burbank^{P1}, Florian Gautier¹, Audrey Noel-Voisin¹, Tanja Wildemann¹, Anne Riu¹, Ann Detroyer¹, Typhaine Bringel¹, Laurent Guillet-Revol¹, Leopold Carron¹, Noémie De Croze¹, Gladys Ouédraogo¹

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P-2a-25 The role of retinoids in disturbing neural rosette formation

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2b. Challenges in cosmetics safety

P-2b-1 An OECD 439 Adaptive In Vitro Skin Irritation Test Model

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P-2b-2 ToxTool: an innovative database for the cosmetic regulatory affair

Giulia De Negri Atanasio^{P1}, Federica Robino², Lorenzo Dondero¹, Elisabetta Perata², Francesca Rispo¹, Giorgia Allaria¹, Francesca Tardanico¹, Francesca Bruzzone², Matteo Zanotti-Russo², Elena Grasselli¹

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P-2b-3 Too many Animal Tests on Cosmetic Ingredients for REACH in the EU: actual situation and future prospects

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P-2b-4 The study on EDs and the application of the NGRA according to the guidelines SCCS NoG XI Ed: two overlapping challenges.

Matteo Zanotti Russo^{P1}, Giorgia Allaria², Lorenzo Dondero², Giulia De Negri Atanasio², Francesca Rispo², Francesca Tardanico², Federica Robino¹, Elisabetta Perata¹, Francesca Bruzzone¹, Elena Grasselli²

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P-2b-5 Zebrafish: Alternative Model For Cosmetic Testing

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3a. Models, biomarkers and assays for systemic and immune toxicity

P-3a-1 Analysis of the predictive capacity of the SENS-IS assay to define the skin sensitization potency on 186 chemicals

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¹ ImmunoSearch, Grasse, France

P-3a-2 Potential beneficial effects of selenium nanoparticles in the adjuvant anticancer therapy

Elena Ines Adam-Dima^{P1}, Mihaela Balas², Anca Dinischiotu²,
Carmen Nicoleta Purdel¹, Denisa Margină¹
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P-3a-3 **Extending the boundaries of OECD DPRA test N°442C towards complex substances and mixtures: an innovative feat in HPLC-MS/MS and skin sensitization testing**

Eric Andres^{P1}, Sergio Gonzalez Duque¹, Axelle Huyard¹, Rola Barcham¹, Christophe Dini¹
¹ Oroxcell

P-3a-4 **Target organs in cosmetics: which in vitro and in silico models to move towards to increase expertise in systemic toxicity?**

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P-3a-5 **Safety of cosmetic perfumes screened in chemico and in vitro in combination with targeted chemical analysis**

Marketa Dvorakova^{P1,2}, Kristina Kejlova¹, Hana Bendova¹, Lada Svobodova^{1,3}, Marian Rucki¹,
Vaclav Sevcik^{1,4}, Barbora Hosikova³, Jan Chrz³, Danuse Ocadlikova¹, Hana Kolarova³, Marek
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Republic
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P-3a-6 **Use of Assay Ready KertainoSens® Cells to test for Skin Sensitization**

Lukas Focke^{P1}, Valerie de Boor¹, Oliver Wehmeier¹
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P-3a-7 **A predictive 3D liver spheroid model for the assessment of liver repeated dose toxicity**

Romain Grall^{P1}, Veronique Neiveyans¹, Sylvie Emery¹, Françoise Gautier², Gladys Ouedraogo¹,
Anne Riu¹
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P-3a-8 **Developing an innervated skin model for predicting neuroinflammatory and neurosensory effect of cosmetic compounds**

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Craig Murdoch², Helen E Colley²
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² University of Sheffield

P-3a-9 **EFFECTS OF PER- AND POLYFLUOROALKYL SUBSTANCES IN HUMAN B AND T CELL LINES**

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Joke Hoekstra¹, Sanne Schild¹, Ron Hoogenboom¹, Ad Peijnenburg¹, Jochem Louisse¹
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P-3a-10 **IN VITRO 3D KIDNEY MODEL CO-CULTURED WITH HUMAN IMMUNE CELLS
INVESTIGATING IMMUNE HYPERACTIVITY ASSOCIATED RENAL INJURY**

Yu Bin Lee^{P1}, Mi-lang Kyun¹, Tamina Park¹, Min-Heui Yoo¹, Inhye Kim¹, Hyewon Jung¹,
Myeongjin Choi¹, Seo Yule Jeong¹, Jihye Son¹, Dong Ho Woo¹, Chang Hoon Choi¹, Hyun-A
Oh¹, Ye-Ji Kim¹, Gong Yeon Kim¹, Yu Yeong Jeong¹, Daeui Park¹, Kyoung-Sik Moon¹
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P-3a-11 **Establishment of a complex commensal 3-D skin model for toxicity testing**

Lisa Lemoine^{P1}, Maya Kissner, Aline Rosin, Tewes Tralau
¹ German Federal Institute for Risk Assessment (BfR)

P-3a-12 **EXPLORING CAUSAL RELATIONSHIPS BETWEEN PFAS EXPOSURE AND LIPID
HOMEOSTASIS BY THE USE OF A HUMAN LIVER SPHEROID MODEL**

Birgitte Lindeman^{P1}, Marit Låg¹, Line Småstuen Haug¹, Azemira Sabaredzovic¹, Kristine Bjerve
Gützkow¹
¹ Norwegian Institute of Public Health; Division of Climate and Environmental Health

P-3a-13 **In vitro study of biosafety of ZnO nanoparticles: coagulation assay and protein corona.**

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P-3a-14 **Evaluation of the use of in vitro methods to study the general toxic effect of cosmetic
products**

Ulyana Protasevich^{P1}, Maryna Anisovich¹, Tatsiana Hamolka¹, Iryna Ilyukova¹
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P-3a-15 **LIVER METABOLOMICS IN VITRO– A MINIATURIZED SCREENING APPROACH TO
PREDICT THE MODE OF ACTION OF LIVER TOXICANTS IN HEPG2 CELLS**

Sabina Ramirez Hincapie^{P1}, Barbara Birk¹, Michael Herold², Philipp Ternes², Volker Haake²,
Varun Giri¹, Franziska Maria Zickgraf¹, Hans-Albrecht Huener¹, Andreas Verlohner¹,
Hennicke Kamp¹, Robert Landsiedel¹, Elke Richling³, Dorothee Funk-Weyer¹, Bennard van
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P-3a-16 **IMPLEMENTING AN IN VITRO METABOLOMICS SCREENING METHOD TO STUDY LIVER
TOXICANTS IN HEPG2 CELLS- A CASE STUDY WITH NITROFURANTOIN**

Sabina Ramirez Hincapie^{P1}, Barbara Birk¹, Franziska Maria Zickgraf¹, Michael Herold², Philipp
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Hennicke Kamp¹, Robert Landsiedel¹, Elke Richling³, Dorothee Funk-Weyer¹, Bennard van

Ravenzwaay¹
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² BASF Metabolome Solutions GmbH
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P-3a-17 **IMPACT OF BENZO[A]PYRENE ON MICRORNAS PROFILES IN HUMAN PERIPHERAL BLOOD MONONUCLEAR CELLS AND THEIR DISCHARGED EXTRACELLULAR VESICLES**

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P-3a-18 **Update and optimization of an adverse outcome pathway network of chemical-induced cholestasis**

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P-3a-19 **An adverse outcome pathway network for liver steatosis induced by chemicals**

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P-3a-20 **Advanced biological models for hazard assessment of nanomaterials on human health**

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3b. Organ-on-a-chip & Microphysiological Systems

P-3b-1 **On the Real-Time Oxygen Consumption of Hepatocytes in a Microphysiological System**

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P-3b-2 **PROPOSAL FOR A HUMAN FOETO-PLACENTAL ORGAN-ON-A-CHIP FOR TESTING DEVELOPMENTAL TOXICITY**

Emilio Benfenati¹, Michaela Luconi², Udo R. Markert³, Tobias May⁴, Alessandra Roncaglioni¹, Astrid Schmidt⁵, Miguel A. Sogorb^{P6}, Marco Straccia⁷, Sabrina Tait⁸, Susanne Wolbank⁹

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⁹ Ludwig Boltzmann Institute for Experimental and Clinical Traumatology, AUVA Research Center, Donaueschingenstrasse 13, A-1200, Vienna, Austria

P-3b-3 **ALL-IN-ONE MICROFLUIDIC-BASED ROBOTIC PLATFORM FOR AUTOMATED TOX SCREENINGS IN C. ELEGANS.**

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P-3b-4 **Mutagenicity and genotoxicity assessment of a new biopreservative product rich in Enterocin AS-48**

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³ Department of Microbiology. Universidad de Granada. Campus de Fuente Nueva. Dr. Severo Ochoa, 18071 Granada, España

P-3b-5 **A multiorgan-on chip platform for the in vitro investigation of off-target cardiotoxicity of liver-metabolized anticancer drugs**

Erika Ferrari^{P1}, Roberta Visone^{1,2}, Paola Occhetta^{1,2}, Marco Rasponi^{1,2}

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² BiomimX Srl, Milano, Italy

P-3b-6 **3D human vasculature-on-a-chip: the biological effect of combustible cigarette smoke and vapor from three heated tobacco products on monocyte adhesion to vessels comprising coronary artery endothelial cells**

Ayaka Hayashida^{P1}, Atsuko Nozawa¹, Kazuhiro Ohashi¹, Shigeaki Ito¹

¹ Scientific Product Assessment Center, Japan Tobacco Inc.

P-3b-7 **What are the barriers to adoption of new approach methodologies for gastrointestinal toxicity testing? A systematic review of in vitro models of gastrointestinal toxicity**

Alasdair Irvine^{P1}, Paul Jochems¹, Roos Masereeuw¹
¹ Utrecht University

P-3b-8 A systematic review of in vitro models of drug-induced liver injury

Alasdair Irvine^{P1}, Vivian Lehman^{2,3}, Bart Spee⁴, Sabine Fuchs², Ross Masereeuw⁵,
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⁴ Department of Veterinary Medicine, Utrecht University,
⁵ Utrecht Institute for Pharmaceutical Sciences (UIPS), Division of Pharmacology, Utrecht
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⁶ Department of In Vitro Toxicology, Vrije Universiteit Brussel

P-3b-9 USE OF MICROFLUIDIC CHAMBERS IN ENVIRONMENTAL TOXICITY STUDIES USING FISH CELLS AS A MODEL

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² IMB-CNM-CSIC

P-3b-10 SOLUBLE FACTORS ARE INVOLVED IN THE PROPAGATION OF LIVER FIBROSIS IN VITRO

Saskia Schmidt^{P1,2}, Catherine Messner^{1,3}, Carine Gaiser¹, Bradley Petkus⁴, Loïc Burr⁴, Joy
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³ SCAHT: Swiss Centre of Applied Human Toxicology, Basel, 4055, Switzerland
⁴ Centre Suisse d'Electronique et de Microtechnique SA (CSEM), Landquart, 7302, and
Muttenz, 4132, Switzerland
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P-3b-11 A microfluidic-based in vitro reconstruction of synaptic circuits as an alternative model for pharmacologic research

Clelia Introna^{P1,2}, Inês Pereira³, Guochang Lyu⁴, Maria José Lopez Martínez^{3,5,6}, Josep
Samitier^{3,5,6}, Berta Coll⁷, Jordi Soriano^{8,9}, Ernest Arenas⁴, Daniel Tornero Prieto^{7,2}, Josep M.
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P-3b-12 A microfluidic, patient-derived tumor-on chip platform for therapeutic efficacy and safety evaluation of CAR-T cell products

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4a. Computational toxicology – in silico modelling, read-across, artificial intelligence and machine learning

P-4a-1 Adverse Outcome Network For Obesity Initiated By Endocrine Disruptors developed using the AOP-helpFinder tool

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P-4a-2 Development of a easy-to-use, semantic technology-based knowledgebase containing toxicological information of cosmetic ingredients to assist animal-free risk assessment

Sara Sepehri^{P1}, Robim M. Rodrigues¹, Mona Delagrangé¹, Joery De Kock¹, Audrey Sanctorem², Jan Maushagen², Christophe Debruyne³, Olga De Troyer², Tamara Vanhaecke¹

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P-4a-3 Three steps to select analogues for skin sensitization prediction using read-across: an exemplary case study with vanillin

Françoise Gauthier¹, Fleur Tourneix¹, Hind Assaf-Vandecasteele¹, Dagmar Bury¹, Nathalie Alépée^{P1}

¹ L'Oreal R&I

P-4a-4 Elucidating the Inhibition Mechanism of six FDA-Approved Drugs on P-glycoprotein (P-gp) Transporter by Molecular Docking Simulation

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P-4a-5 ORBITOX – A COMPUTATIONAL TRANSLATIONAL DISCOVERY PLATFORM FOR DATA MINING AND READ-ACROSS

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Nicole Kleinstreuer², Alex Merick³, Ruchir Shah¹, Warren Casey³
¹ Sciome LLC
² NICEATM, NIEHS
³ NTP, NIEHS

P-4a-6 Use of text-mining and chemoinformatics as additional decision-making tools for the chemical selection process of the EU-NETVAL thyroid validation study

David Asturio^{P1}, Alessandro Antonelli², Anna Beronius³, Patience Browne⁴, Thomas Cole¹, Raffaella Corvi¹, Barbara Demeneix⁵, Alexius Freyberger⁶, Mary Gilbert Gilbert⁷, Elise Grignard¹, Klára Hilscherová⁸, Aude Kienzler¹, Dries Knapen⁹, Josef Köhrle¹⁰, Ingrid Langezaal¹, Sharon Munn¹, Amalia Munoz Pineiro¹, Gea Oliveri Conti¹¹, Alicia Pains¹, Alex Patak¹, Mauro Petrillo¹, Daniel Pickford¹², Francesca Pistollato¹, Anna Price¹, Antonio Puertas Gallardo¹, Maddalena Querci¹, Barbara Raffael¹, Kostja Renko¹⁰, Tammy Stoker⁷, Jukka Sund¹, Guy Van den Eede¹³, Michael Wade¹⁴, Maurice Whelan¹, Sandra Coecke¹
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² University of Pisa, Italy
³ Karolinska Institutet, Sweden
⁴ OECD, France
⁵ National Museum of Natural History
⁶ Bayer AG
⁷ US Environmental Protection Agency, USA
⁸ Masaryk University, Czechia
⁹ University of Antwerp, Belgium
¹⁰ Charité-Universitätsmedizin, Germany
¹¹ University of Catania, Italy
¹² Syngenta, UK
¹³ European Commission, Joint Research Centre
¹⁴ Health Canada, Canada

P-4a-7 IMPLEMENTATION OF IN SILICO-BASED READ-ACROSS ASSESSMENT FOR GENOTOXICITY FOR PESTICIDE RESIDUES UNDER EU LEGISLATION AND KEY CHALLENGES

Minako Allen^{P1}, Maria Pellizzaro¹, Rebecca Silcock¹
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P-4a-8 Development and validation of machine learning based QSAR models to predict the TPO inhibitors

Bharath BR^{P1}, Vaibhav Barot¹, Rahul Date¹, Abhay Deshpande¹
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P-4a-9 High throughput in vitro genotoxicity methods for hazard identification and characterization of “data poor” compounds

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P-4a-10 Combining gene expressions and imaged-based morphological features for chemical-phenotype profiles

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P-4a-11 Development and Translation of Quantitative Neuronal Adverse Outcome Pathway (qNAOP) model for Neurotoxicity Risk Assessment

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P-4a-12 CONTRIBUTION MAPPING: USING STRUCTURE–TOXICITY RELATIONSHIPS (STR) AND MECHANISTIC INTERPRETABILITY OF IN SILICO MODELS TO ASSESS DEVELOPMENTAL TOXICITY AND ENDOCRINE-DISRUPTING POTENTIAL OF TWELVE UV FILTERS

Andreza Di Pietro Micali Canavez^{P1}, Carlos Eduardo Matos dos Santos², Desiree Cigaran Schuck¹, Marcio Lorencini¹
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P-4a-13 Physiological map to study kidney toxicity in the ONTOX project

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P-4a-14 QUANTITATIVE ADVERSE OUTCOME PATHWAY MODELING FOR CHRONIC TOXICITY

Shigeaki Ito^{P1}, Sayak Mukherjee², Kazuo Erami¹, Shugo Muratani¹, Akina Mori¹, Sakuya Ichikawa¹, Kei Yoshino¹, Dawn Fallacara²
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P-4a-15 Applying machine-learning approaches to identify key genes associated with drug-induced cholestasis

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- P-4a-16** **Virtual Human Platform for Safety Assessment (VHP4Safety):
Assessing the safety of chemicals and pharmaceuticals based on human data**
- Anne Kienhuis^{P1}, Cyrille Kru², Juliette Legler³
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² University of Applied Sciences Utrecht (HU)
³ Utrecht University
- P-4a-17** **A COMPARATIVE COMPUTATIONAL PREDICTION OF THE BINDING OF ANDROGEN-
AND ESTROGEN-LIKE FLAVONOIDS TO THEIR COGNATE (NON)NUCLEAR RECEPTORS**
- Stefano Lorenzetti^{P1}, Giulia D'Arrigo², Eleonora Gianquinto², Giulia Rossetti³, Gabriele Cruciani⁴, Francesca Spyra²
¹ ISS – Istituto Superiore di Sanità, Department of Food Safety, Nutrition and Veterinary Public Health
² University of Turin, Department of Drug Science and Technology
³ Aachen University, Department of Neurology
⁴ University of Perugia, Department of Chemistry, Biology and Biotechnology
- P-4a-18** **Designing physiological maps as a tool to study liver toxicology**
- Luiz Carlos Maia Ladeira^{P1}, Alessio Gamba¹, Raphaëlle Lesage², Anouk Verhoeven³, Jonas van Ertvelde³, Jian Jiang³, Daniël Roodzant⁴, Marc Teunis⁴, Ramiro Jover⁵, Tamara Vanhaecke³, Mathieu Vinken³, Harm Heusinkveld⁶, Liesbet Geris^{1,2,7}, Bernard Staumont¹
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⁶ Centre for Health Protection, National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands
⁷ Biomechanics Section, Department of Mechanical Engineering, KU Leuven, Belgium
- P-4a-19** **Toxicity prediction of mycotoxins by in silico modeling**
- Martina Palomino-Schätzlein^{P1}, Josefa Tolosa², Eva Serrano-Candelas¹, Jose Luis Vallés-Pardo¹, Salvador Moncho¹, Rafael Gozalbes¹
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² Laboratory of Toxicology. Faculty of Pharmacy. University of Valencia (Av. Vicent Andrés Estellés s/n. 46100. Burjasot, Valencia, Spain)
- P-4a-20** **Evaluation of state-of-the-art in silico testing methods to fill physico-chemical and toxicokinetic data gaps within the ONTOX project**
- Alessandra Roncaglioni^{P1}, Domenico Gadaleta¹, Erika Colombo¹, Eva Serrano-Candelas², Pablo Aparicio², Rafael Gozalbes², Emilio Benfenati¹
¹ Istituto di Ricerche Farmacologiche Mario Negri IRCCS, Milan, Italy
² ProtoQSAR SL, Valencia, Spain
- P-4a-21** **Development new web-tool for phototoxicity prediction on the base of machine learning approach**

Marta Šoltéssová Prnová^{P1,2}, Matej Halinkovič², Tibor Sloboda²,
Kateřina Muřková², Patrik Pavlačka², Jakub Knánik², Helena Kandárová¹
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P-4a-22 QSAR MODEL FOR PREDICTING MYCOTOXIN MUTAGENICITY

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P-4a-23 Computational modelling of neural tube closure defects

Job Berkhout^{P1,2}, Aldert Piersma^{1,2}, Juliette Legler², Alessio Gamba³, Luiz Carlos Maia Ladeira³,
Bernard Staumont³, Raphaëlle Lesage⁴, Liesbet Geris^{3,4,5}, Harm Heusinkveld¹
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P-4a-24 ASSESSING A BATTERY OF IN SILICO MODELS AS PREDICTION TOOL FOR COMPOUNDS EXERTING REPRODUCTIVE HEALTH EFFECTS

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of Health, Kyiv, Ukraine
³ Jaksch Lifescience Consulting GmbH

P-4a-25 Facilitating modern toxicology with Natural Language Processing

Marie Corradi^{P1}, Alyanne de Haan¹, Thomas Luechtefeld^{2,3}, Marc Teunis¹
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² ToxTrack
³ CAAT

P-4a-26 Using molecular docking simulations to elucidate molecular initiating event (MIE) interactions of neonicotinoid pesticides and human nicotinic acetylcholine receptors (nAChRs)

Karin Grillberger^{P1}, Gerhard F. Ecker¹
¹ University of Vienna

4b. Local toxicity testing (safety and efficacy)

P-4b-1 Concentration, typology of surfactants, in vitro and clinical ocular tolerance studies: a multi-parameterized approach for foaming cosmetics intended to claim “do not sting the eyes”

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P-4b-2 Effect of a modulator on the skin sensitization potency of cosmetic fragrance formulations

Carine LINOSSIER¹, Marine CUSCUSA¹, Marisa MELONI², Andy FORRERYD³, Mylène LANVIN¹

¹ COTY

² VITROSCREEN

³ SENZAGEN

P-4b-3 Comparison between HET-CAM protocols and a product use clinical study for eye irritation evaluation of personal care products according to their surfactant composition

Martín Nicolás Rivero¹, Mariela Lenze¹, Mercedes Izaguirre^{1,2}, Martina Benedetti^{1,2}, Silvia Pérez Damonte³, Silvia Wikinski^{1,2}, María Laura Gutiérrez^{P1,2}

¹ Institute of Pharmacology – University of Buenos Aires

² CONICET

³ CLAIM CRO

P-4b-4 DECISION TREE FOR OCULAR SAFETY ASSESSMENT OF AGROCHEMICAL FORMULATIONS

Martín Nicolás Rivero¹, Mariela Lenze^{1,2}, Agustina Reschini¹, Juan Ignacio Pina³, Romina Martínez⁴, Silvia Wikinski^{1,2}, María Laura Gutiérrez^{P1,2}

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² CONICET

³ ATANOR SCA

⁴ Dr Julio Mendez Hospital

P-4b-5 THE RECONSTRUCTED HUMAN EPIDERMIS (RHE) EFFICIENCY IN THE CLASSIFICATION OF BIOLOGICAL PRODUCT BY THE IN VITRO IRRITATION AND CORROSION TESTS (OECD 439 AND 431).

Bruna Assunção Bechtold¹, Julio César Cianci², Maria 'Paula Mancini Coelho³, Leandro Fernando Felix⁴, Thatiane Nunes Santana⁵, Vanja Dakic⁶, Rodrigo De Vecchi⁶, Luis Paulo Fava⁷, Priscilla Muniz Ribeiro da Silva⁸, Juliana Falcato Vecina^{P8}

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P-4b-6 PROFICIENCY DEMONSTRATION OF MERIEUX NUTRISCIENCE (BIOAGRI LABORATÓRIOS LTDA) ON IN VITRO EYE IRRITATION AND SERIOUS EYE DAMAGE IMPLEMENTATION

Maria Paula Mancini Coelho¹, Brunna Assunção Bechtold², Julio César Cianci³, Larissa Gabriele Costa³, Leandro Fernando Felix⁴, Thatiane Nunes Santana⁵, Vanja Dakic⁶, Rodrigo De Vecchi⁶, Luis Paulo Fava⁷, Priscilla Muniz Ribeiro da Silva⁸, Juliana Falcato Vecina^{P8}

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P-4b-7 SkinEthic™ HCE Time-to-Toxicity : World's first adopted new approach methodology on its own for eye hazard identification adopted by OECD

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P-4b-8 COMPOUND A-111 – A NOVEL SMALL MOLECULE CANDIDATE FOR THE TOPICAL TREATMENT OF HYPERPIGMENTATION

Agnieszka Gunia-Krzyżak¹, Justyna Popiół², Magda Borchuch-Kostańska¹, Katarzyna Wójcik-Pszczola², Paulina Koczurkiewicz-Adamczyk², Patryk Kasza³, Przemysław Szafranski³, Dorota Żelaszczyk¹, Elżbieta Pękala²
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P-4b-9 Corneal-derived biomolecular solution: application as an in chemico method for ocular toxicity assessment

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P-4b-10 A new approach for Eye Hazard Assessment of surfactants based on in vitro Test Methods

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³ Kao Corporation, Japan
⁴ Colgate Palmolive, United States
⁵ Cosmetics Europe, Belgium
⁶ Henkel AG & Co. KGaA, Germany

P-4b-11 DEVELOPMENT OF AN IN VITRO WOUND HEALING MODEL USING LIVE-CELL IMAGING: APPLICATION IN DERMATOLOGY AND COMSETIC FIELDS

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P-4b-12 A NEW HUMAN IN VITRO SKIN MODEL OF EPIDERMAL BARRIER DAMAGE

Manon Barthe^{P1,2}, Véronique M. Braud², Jean-Paul Thénot³, Hanan Osman-Ponchet³

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P-4b-13 Study of the efficacy and safety on in vitro human skin models of a Curcumin emulsion for skin pathologies treatment

Mónica Betanzos^{P1}, Adrian García¹, Senda Basasoro², Paloma Gómez¹, Garazi Berra², Gartzte Mentxaka¹, Amaia García¹, Nagore Gabilondo², Felipe Goñi de Cerio¹

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P-4b-14 Cutaneous tolerance of personal care products dedicated to babies and adults with sensitive skin: in vitro/in vivo correlation

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P-4b-15 Retrospective review on in vitro phototoxicity data generated in 3D skin models to support development of new OECD test guideline

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P-4b-16 ESTABLISHMENT OF A COMMENSAL 3D SKIN MODEL FOR STUDYING MICROBIAL MODULATION OF PESTICIDE TOXICITY

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P-4b-17 Determination and Sub-categorization of Ocular Irritants Using the EpiOcular Tissue Model – Prediction Models for Liquids and Solids

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P-4b-18 SAFETY AND EFFICACY TESTING OF COSMETIC PRODUCTS: OVERVIEW OF ESTABLISHED METHODS AND NEW MODELS.

Hanan Osman-Ponchet^{P1}, Manon Barthe², Jean-Paul Thénot¹
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P-4b-19 In vitro evaluation of safety profile of a cosmetic ingredient – 4-methoxychalcone

Justyna Popiół^{P1}, Karolina Słoczyńska¹, Paulina Koczurkiewicz-Adamczyk¹, Dorota Żelaszczyk², Katarzyna Orzeł², Katarzyna Wójcik-Pszczola¹, Przemysław Szafranski³, Patryk Kasza³, Elżbieta Pękala¹, Agnieszka Gunia-Krzyżak²
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P-4b-20 Pre-Clinical in vitro assessment of tobacco-free nicotine pouch products

Sarah Jean Pour^{P1}, Roman Wieczorek¹, Edgar Trelles Sticken¹, Ole Dethloff¹, Liam Simms², Matthew Stevenson²
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P-4b-21 Skin sensitization of “challenging” compounds: in vitro strategy applied to bio-based ingredients

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P-4b-22 Measurement and culture method of organoid for toxicity assessment of nanomaterials

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P-4b-23 New based on cell assay to evaluate eye stinging potential of chemicals and cosmetic formulations

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P-4b-24 Cytotoxicity Profile and Prooxidant Effects of the New Ruthenium Complex HE-10 in Human Skin Fibroblast Cells

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P-4b-25 Application of fluorescence-based methods for in chemico and in vitro detection of photoreactive chemicals

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Mojmír Mach¹, Lucia Račková¹

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5a. Toxicokinetics and in vitro – in vivo extrapolation

P-5a-1 **In vitro biotransformation of propyl-propane-thiosulfonate (PTSO): Identification and characterization of metabolites**

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Enrique Guillamón², Ángeles Jos¹, Ana M. Cameán¹

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² DMC Research Center. Camino de Jayena, 82, 18620 Alhendín, Granada, Spain.

P-5a-2 **Preliminary results to the determination of dermal toxicological reference values for a neurotoxic organophosphorus agent**

Marie-Laure Cointot^{P1}, Lysiane Champion², Alan Hubert², Jennifer Millerioux², Anne Bossée²

¹ French Ministry for Armed Forces

² French Ministry for Armed Forces

P-5a-3 **Preliminary results to the determination of dermal toxicological reference values for a neurotoxic organophosphorus agent**

Marie-Laure COINTOT^{P1}, Lysiane CHAMPION¹, Alan HUBERT¹, Jennifer MILLERIOUX¹, Anne
BOSSE¹

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P-5a-4 **PBK Modelling Of In Vivo Distribution Kinetics In The ONTOX Project**

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P-5a-5 **Developing toxicokinetic models for chemical risk assessment of Homosalate using MOIE – a Cosmetics Europe Case Study**

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Lereaux¹, Françoise Gautier², Audrey Noel-Voisin², Nicky Hewitt³, Gladys Ouédraogo¹,
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5b. In vitro systems to assess respiratory toxicity

P-5b-1 **INHALATION TOXICITY ASSESSMENT OF AN AEROSOLIZED SUNSCREEN PRODUCT WITH AN IN VITRO PULMONARY MODEL**

Béatrice BUI¹, Marie-Pierre GOMEZ-BERRADA^{P1}, Pierre-Jacques FERRET¹

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P-5b-2 Novel fully primary human airway epithelium-alveolar macrophages in vitro co-cultures models to study host pathogen interactions

Bernadett Boda¹, Samuel Constant^{P1}

¹ Epithelix

P-5b-3 Utilisation of human 3D bronchial tissues for e-cigarette assessment

Matthew Stevenson¹, Lukasz Czekala^{P1}, Roman Wieczorek¹, Edgar Trelles Sticken¹, Sarah Jean Pour¹, Fiona Chapman¹, Liam Simms¹

¹ Imperial Brands PLC

P-5b-4 Electronic Nicotine Delivery Systems exhibit lower toxicity compared to cigarettes: The Replica Study experience

Massimo Caruso^{P1,2}, Alfio Distefano¹, Rosalia Emma¹, Sonja Rust³, Konstantinos Poulas^{4,5}, Fahad Zadjali⁶, Silvia Boffo⁷, Antonio Giordano⁷, Vladislav Volarevic⁸, Konstantinos Mesiakaris^{4,5}, Georgios Karanasios⁵, Mohammed Al Tobj⁶, Najwa Albalushi⁶, Angelo Canciello⁷, Aleksandar Arsenijevic⁸, Aleksandar Ilic⁸, Tancredi Caruso¹, Giuseppe Carota¹, Mariarita Spampinato¹, Roberta Pulvirenti¹, Pietro Zuccarello⁹, Margherita Ferrante⁹, Riccardo Polosa^{10,2}, Giovanni Li Volti^{1,2}

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P-5b-5 IN VITRO AIR-LIQUID INTERFACE EXPOSURE OF LUNG CELLS TO THERAPEUTIC AEROSOLS FOR PRECLINICAL DRUG DEVELOPMENT

Evelien Frijns^{P1}, An Jacobs¹, Jo Van Laer¹, Karen Hollanders¹, Sylvie Remy¹, Dirk Jochmans², Sandra Verstraelen¹

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P-5b-6 New concepts in inhalation toxicology: The in vitro approach

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**P-5b-7 UNDERSTANDING THE TOXICITY OF A BTEX MIXTURE:
AIR/LIQUID INTERFACE EXPOSURE OF ORGANOTYPIC LUNG CULTURES**

Nour Jaber^{P1}, Claude Emond², Fabrice Bray³, Paul Genevray⁴, Christian Rolando³,
Fabrice Cazier⁴, Sylvain Billet¹

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² PKSH Inc, Département de Santé Environnementale et Santé au Travail de l'École de santé
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Protéomique, F-59 000, Lille, France.

⁴ CCM, Centre Commun de mesure, Université du Littoral Côte d'Opale, Dunkerque, France.

P-5b-8 Fine dust toxicity evaluation on uterus using endometrial stem cells

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P-5b-9 Flavors in e-cigarettes – a tasty hazard?

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**P-5b-10 Dosimetry in inhalation: an in vitro inhalation model to study the relevance of dose
parameters related to particle mass and particle number**

Detlef Ritter^{P1}, Katharina Schwarz¹, Wolfgang Koch¹

¹ Fraunhofer ITEM

P-5b-11 Development of alternative in vitro and ex vivo models for testing of inhalable antibiotics

Katharina Schwarz^{P1}, Sabine Wronski¹, Detlef Ritter¹, Jan Knebel¹, Katharina Bluemlein¹, Sven
Cleeves¹, Nico Sonnenschein¹, Laura Mueller¹, Monika Niehof¹, Katherina Sewald¹, Tanja
Hansen¹, Norman Nowak¹, Armin Braun¹

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P-5b-12 Ex vivo porcine precision cut lung slices (PCLS) for pulmonary toxicity assessment

Katharina Schwarz^{P1}, Sabine Wronski¹, Detlef Ritter¹, Jan Knebel¹, Katharina Bluemlein¹, Sven
Cleeves¹, Nico Sonnenschein¹, Laura Mueller¹, Monika Niehof¹, Katherina

Marcella Miranda Siqueira Furtuoso¹, Bruna Cristiane Oliveira Pedralli¹, Marize Valadares^{P2}

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6a. In vitro methods for safety testing of biopharmaceuticals/biotherapies/vaccines

**P-6a-1 Liver spheroid co-cultures with fresh or cryopreserved hepatocytes and endothelial cells
as tool to investigate metabolism and hepatotoxicity**

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Madlen Matz-Soja³, Andrea Zimmermann⁴

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³ Lehrstuhl für Allgemeine Biochemie, Universität Leipzig

⁴ Hepatobiliäre Chirurgie und viszerale Transplantation, Sächsischer Inkubator für klinische Translation

P-6a-2 A novel polymer generates cell repellent surfaces and allows 3D cell culture

Anett Ullrich¹, Veronique Schwartz², Dieter Runge^{P1}

¹ Primacyt Cell Culture Technology GmbH, Schwerin, Germany

² Chemovator GmbH, Mannheim, Germany

P-6a-3 Use of Assay Ready THP-1 derived macrophages to test for pyrogen contamination

Adrian Dittberner¹, Lukas Focke^{P1}, Mirta Jacobs¹, Karen Hinsch¹

¹ acCELLerate GmbH

P-6a-4 Validation of the ToxProfiler reporter assay and its application in mechanistic toxicity testing

Bas ter Braak¹, Liesanne Wolters¹, Giel Hendriks¹, Torben Osterlund^{P1}

¹ Toxys B.V.

P-6a-5 Genotoxicity assessment of potentially mutagenic nucleoside analogues using ToxTracker

Inger Brandsma¹, Remco Derr¹, Gaonan Zhang¹, Nynke Moelijker¹, Giel Hendriks¹, Torben Osterlund¹

¹ Toxys B.V.

P-6a-6 Exploring the use of spheroid cultures of human liver cells for the mechanistic testing of carcinogenic compounds

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P-6a-7 In vitro study of the potential of new liposomal delivery systems for future medical applications in inhalation therapies

Juliana Carrillo Romero^{1,2}, Amaia Garcia Bilbao^{P1}, Laura Fernández Méndez², Adrian Garcia¹, Alberto Katsumiti¹, Pedro Ramos Cabrer^{2,3}, Susana Carregal Romero^{2,3,4}, Felipe Goñi de Cerio¹

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P-6a-8 **In vitro microenvironment modifies the neurotoxic response of SH-SY5Y cells**

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P-6a-9 **THE POTENTIAL OF 3D CELL-BASED PLATFORMS FOR THE SCREENING OF NOVEL DRUG CANDIDATES TARGETING THE HEPATIC PLASMODIUM INFECTION**

Francisca Arez^{P1,2}, Diana Fontinha³, Sofia P. Rebelo^{4,2}, Christoph Fischli^{5,6}, Claude Oeuvray⁷, Manuel Carrondo^{4,2}, Matthias Rottmann^{5,6}, Thomas Spangenberg⁷, Catarina Brito^{4,2}, Beatrice Greco⁷, Miguel Prudêncio³, Paula M Alves^{4,2}

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⁷ Merck Global Health Institute, Ares Trading S.A., Route de La Verrerie 6, CH-1267, Coinsins, Switzerland, a subsidiary of Merck KGaA, Darmstadt Germany

P-6a-10 **The potential of 3D reconstructed Human intestinal models for bio waiver studies and finished products testing**

Rola BARCHAM^{P1}, Eric ANDRES¹, Axel HUYARD¹, Christophe DINI¹

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P-6a-11 **Mechanistic Investigation of Drug-Induced Liver Toxicity using Human 3D InSight Liver Model**

Anna Borgström^{P1}, Katarzyna Sanchez¹, Friederike Wenz¹, Natalia Zapiórkowska-Blumer¹, Armin Wolf¹, Bruno Filippi¹

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P-6a-12 **Use of 3D human liver microtissues to assess hepatotoxicity of biologics**

Reiner Class^{P1}, Andrea Kiessling¹, Breda Twomey¹, Milena Mennecozzi¹, Monika Kijanska², Agata Gorecka²

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² InSphero AG

P-6a-13 **MTS application as alternative in vitro method to assess the toxicity of veterinary autogenous vaccines produced at Istituto Zooprofilattico Sperimentale dell'Umbria e delle Marche "Togo Rosati": preliminary data.**

Claudia Colabella^{P1}, Lucia Anzalone¹, Martina Pellegrini¹, Giulio Saveri¹, Monica Cagiola¹, Antonella Di Paolo¹

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P-6a-14 **In vitro microenvironment modifies the neurotoxic response of SH-SY5Y cells**

Véronique DE CONTO^{P1}, Vaihere Cheung¹, Gregory MAUBON¹, Zied Souguir¹, Nathalie Maubon¹, Elodie Vandenhoute¹, Vincent Berezowski²

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P-6a-15 **Interplay between in vitro off-target pharmacological promiscuity, cytotoxicity, and in vivo tolerability in rodents to improve the safety profile of anti-malarial drug discovery**

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P-6a-16 **USEFULNESS OF THE ZEBRAFISH EMBRYO MODEL TO EVALUATE NEW THERAPIES AGAINST MULTIDRUG-RESISTANT BACTERIA**

Laura Guzman^{P1}, Cristina Marqués¹, Elena Sánchez-López^{2,3,4}, Amanda Cano^{2,3,4}, Antoni Camins^{4,5,6}, Yolanda Cajal², Miren Ettcheto^{4,5,6}, Francesc Rabanal⁷, Marta Barenys^{1,8}

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P-6a-17 **Induction and evaluation of an oxidative stress response in the EpiDermFT in vitro human skin model**

Jan Markus^{P1}, Silvia Letasiova¹, Kaitlyn Marengo², Jon Oldach², Alex Armento², Anna Langerveld³, Elisabeth Lehigh³

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² MatTek Corporation, Ashland, MA, USA

³ Genemarkers LLC, Kalamazoo, MI

P-6a-18 **hiPSCs and hiPSCs-derived renal proximal tubular cells showed different response to nephrotoxic compounds**

Isaac Musong Mboni Johnston^{P1}, Nicole Schupp¹

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P-6a-19 Low Endotoxin Recovery (LER) effect in pharmaceutical products analyzed with the Monocyte Activation Test (MAT).

Marco Mingolla^{P1,2}, Chiara Celli², Fabrizio Lecce²

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P-6a-20 An epidermal model containing melanocytes for skin pigmentation and lightening studies

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P-6a-21 PITFALLS OF THE MTT ASSAY AND CYTOTOXICITY EVALUATION OF TRADITIONAL ANTIMALARIALS

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P-6a-22 Long-term upregulation in drug metabolism and hepatic gene expression in primary human hepatocytes (PHH) after exogenous exposure to human intestinal microbiome secretome peptides

Natalia Sánchez-Romero^{P1,2}, Pilar Sainz de la Maza Arnal^{1,2}, Maria Jesús Lozano Limones^{1,2}, Mario Fernández Sanz², Álvaro Blanes Rodríguez², Sandra Meliton Barbancho², Pedro Baptista^{2,3,4,5}

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⁴ ARAID Foundation

⁵ CIBERehd

P-6a-23 Novel in vitro approaches in safety evaluation of cemtirestat

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P-6a-24 Drug-induced QTc prolongation and Torsades de Pointes: evolving ICH S7B in light of emerging in silico, in vitro and in vivo data and implication for drug development

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P-6a-25 Novel Human-Relevant Preclinical Safety Testing Strategy for Recombinant Human Monoclonal Antibodies Directed Against Foreign Targets

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P-6a-26 Hepatic 3D cell models as a cell-based biosensor-like system for the in vitro (geno)toxicity testings

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P-6a-27 Development of a primary culture system to investigate compound toxicity in steatotic hepatocytes

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P-6a-28 LONG-TERM RECORDING OF CARDIAC ACTION POTENTIALS FOR CHRONIC CARDIOTOXICITY ASSESSMENT

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6b. Knowledge sharing and education

P-6b-2 Ukrainian National 3Rs Center. An effective tool to advance the 3Rs principles by focusing on their scientific impacts and benefits

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P-6b-3 Reproducibility in Cell Culture: Replacing Fetal Bovine Serum

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P-6b-4 FUN with NAMs

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7a. Developmental Neurotoxicity (DNT)

P-7a-1 Developmental toxicity assessment of nanoparticles: The importance of indirect placenta-mediated toxicity mechanisms

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P-7a-2 DEVELOPMENTAL NEUROTOXICITY OF ACRYLAMIDE AND ITS METABOLITE GLYCIDAMIDE IN A HUMAN MIXED CULTURE OF NEURONS AND ASTROCYTES UNDERGOING DIFFERENTIATION

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P-7a-3 In vitro study of fumonisin B1 and ochratoxin A on undifferentiated SH-SY5Y cells and contribution of beetroot in alleviating toxic effects

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P-7a-4 APPLYING NAMS TO SAFETY EVALUATION OF HERBAL PRODUCTS CONSUMED BY CATALAN PREGNANT AND LACTATING WOMEN: INTERVIEW-BASED CONSUMPTION SURVEY AND DEVELOPMENTAL NEURO/TOXICITY EVALUATION IN ZEBRAFISH EMBRYOS

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P-7a-5 Application of a human in vitro testing battery for endocrine disruptor (ED)-induced developmental neurotoxicity (DNT) to refine EDC hazard assessment

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7b. Implementation of NAMs into regulatory frameworks – establishing scientific confidence, development of standards and good practices

P-7b-1 INCREASING PREDICTIVITY OF COMPOUND MULTI-ORGAN TOXICITY THROUGH HIGH-THROUGHPUT ZEBRAFISH ASSAYS

Carles Cornet^{P1}, Valentina Schiavone¹, Sergio Jarque¹, Maria Rubio-Brotons¹, Víctor Ordoñez¹, UPC data science course participants², Jessica García-Fernández¹, Ferran Arqué¹, Rafael Miñana-Prieto¹, Javier Terriente¹, Sylvia Dyballa¹, Vincenzo Di Donato¹
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P-7b-2 LARGE SCALE MANUFACTURING OF NAMS

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P-7b-3 Development of a new methodology to quantify the activation of the Nrf2 (key event 2) by allergens

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P-7b-4 Reduction of animal use in reproductive and developmental toxicity studies – new methodology approach

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8a. In vitro methods for safety assessment of medical devices

P-8a-1 Optimization of skin sensitization testing strategy in vitro for medical device extracts

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P-8a-2 In vitro method for quantitative potency assessment of skin sensitizers during development of novel materials for intended use in medical devices

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P-8a-3 Development, pre-validation and validation of the EpiDerm in vitro skin irritation protocol for the medical devices extracts

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P-8a-4 Bio-compatibility assessment of medical devices using reconstructed in vitro 3D human cornea-like tissue model

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8b. In vitro COVID-19 research / Lung and cardiovascular models

P-8b-1 COMPARISON OF EXPRESSION PROFILE OF SARS-COV-2 KEY RECEPTORS IN SKIN AND LUNG IN VITRO MODELS

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P-8b-2 INTESTINAL ADVERSE OUTCOMES IN COVID-19: CURRENT EVIDENCE AND UNCERTAINTIES USING THE ADVERSE OUTCOME PATHWAY FRAMEWORK.

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P-8b-3 COVID-19 through the lens of the Adverse Outcome Pathways: What can we learn from the view on the relationship between ACE2 dysfunction and its interaction with SARS-COV2

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² The work was inspired and performed as part of the CIAO project (<https://www.ciao-covid.net/>)

P-8b-4 Potential role of quercetin in modulating SARS-CoV-2-induced cytokine storm

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P-8b-5 ESTROGENIC ACTIVITY RELATED TO THE PRESENCE OF SARS-COV-2 IN WASTEWATER

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9. Models and methods

P-MODELS-1 APPLICATION OF BENCHMARK DOSE APPROACH FOR ASSESSMENT OF EFFECTS ON RED BLOOD CELLS REVEALED DURING NON-CLINICAL TOXICITY STUDY OF DRUG CANDIDATE

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P-MODELS-2 IN VITRO TRANSCRIPTIONAL BIOMARKERS INVOLVED IN LIVER STEATOSIS AND MIXTURE EFFECTS OF HEPATOTOXIC PESTICIDES THROUGH AN ADVERSE OUTCOME PATHWAY-BASED APPROACH

Efrosini Katsanou¹, Anastasia Spyropoulou^{P1}, Petros Batakis¹, Dajana Lichtenstein², Claudia Luckert², Albert Braeuning², Alfonso Lampen², Kyriaki Machera¹

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P-MODELS-3 Thermodynamic study on efficient removal of Cr(III), Cu(II) and Cd(II) heavy metal ions by SnO₂/MWCNT nanocomposite.

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P-MODELS-4 PANORAMIX: Providing risk assessments of complex real-life mixtures for the protection of Europe's citizens and the environment

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P-MODELS-5 IN VITRO MUTAGENICITY AND GENOTOXICITY OF PURE ANATOXIN-A

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P-MODELS-6 Mutagenicity and genotoxicity evaluation of reduced graphene oxide by the mouse lymphoma assay and standard and enzyme- modified comet assays

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P-MODELS-7 GLIMPSES INTO IN VITRO TESTING OF MYCOTOXIN MIXTURES: INTERACTION BETWEEN TOXINS AND THEIR METABOLIC ACTIVATION

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P-MODELS-8 Regulation of cholesterol transport and metabolism by tumor necrosis factor alpha in a human in vitro blood-brain barrier model

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P-MODELS-9 Development of an adverse outcome pathway for kidney tubular necrosis

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P-MODELS-10 Neurotoxic effect of potential countermeasures in case of nerve agent poisoning

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P-MODELS-11 New Salmonella strains resistant to sulfonyleurea and triazole-pyrimidine herbicides and their use in the Ames test

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P-MODELS-12 BPS DISPLAYS SIMILAR PHENOTYPIC AND METABOLIC RESPONSES TO BPA IN HEPG2 AND INS-1E CELLS

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P-MODELS-13 Comparison of a heated tobacco stick product and a combustible cigarette: chemical analysis and in vitro toxicological evaluation

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P-MODELS-14 A High Content Analysis approach for a better detection of bacterial factors involved in the virulence of Bacillus cereus and Clostridium perfringens Strains

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P-MODELS-15 Investigation of toxicokinetic and toxikodynamic mixture effects within plant protection products using new approach methodologies: a case study of two products containing tebuconazole + prothioconazole and cypermethrin + piperonylbutoxide

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P-MODELS-16 CHRONIC LOW-DOSE EXPOSURE TO DIBUTYL PHTHALATE AFFECTS NO PRODUCTION, CELL MIGRATION, AND ANGIOGENESIS IN HUMAN ENDOTHELIAL CELL LINE EA.HY926

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P-MODELS-17 Mixture effects of extracts from environment, food and blood on neurite outgrowth compared to cytotoxicity in SH-SY5Y cells

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P-MODELS-18 Connexin-based channel activity is not specifically altered by hepatocarcinogenic chemicals

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P-MODELS-19 STUDY OF CITRININ TOXIC EFFECTS ON A 3D NEUROBLASTOMA MODEL: CYTOTOXICITY, OXIDATIVE STRESS AND CELL DEATH

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P-MODELS-20 THE ROLE OF ENVIRONMENTAL CONTAMINANTS DETECTABLE IN WASTE OF ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) PLANTS IN A549 AND HEPG2 CELL LINES – THE VAISAL PROJECT

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P-MODELS-21 PK-driven drug test for the evaluation of the efficacy of anti-cancer treatment regimens

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P-MODELS-22 INTEGRATED ENVIRONMENTAL AND HUMAN IN VITRO TOXICITY APPROACH FOR DINOFLAGELLATES

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P-MODELS-23 INTEGRATE IDENTIFICATION OF A NOVEL MODE OF ACTION OF VANILLIN DERIVATIVE COMPOUND VERATRALDEHYDE

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P-MODELS-24 Using an in vitro inflamed intestinal model to study the effect of deoxynivalenol on primary bile acid malabsorption in human

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P-MODELS-25 Use of RNA seq-based gene expression signatures of pesticide active substances in human kidney cells to support definition of cumulative assessment groups (CAGs) for risk assessment

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P-MODELS-26 Receptor-mediated activities of 4- and 5-ring unsubstituted and methylated polycyclic aromatic hydrocarbons (PAHs) in relation to their developmental toxicity potency

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P-MODELS-27 Validation of skin and ocular irritation and severe damage (corrosion) tests as non-animal alternatives using OECD guideline evaluation substances

Paul Rawlinson¹, Matthew Tate¹, Callum Stagg¹, Gary Henzell¹, Elias Halkes-Wellstead^{P1}
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P-MODELS-28 Vital human material as an innovative approach to move towards human-based science without animal research – What are the challenges ?

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P-MODELS-29 Perspective multi-modal acting compounds against SARS-COV-2 virus

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P-MODELS-30 DEVELOPMENT OF A METHODOLOGY TO PERFORM TOXICOKINETICS AND TOXICODYNAMICS STUDIES IN BIOFILMS

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10. Nanoparticles research in vitro

P-NANO-1 ASSOCIATION OF DOXORUBICIN AND pH-SENSITIVE NANOPARTICLES CONTAINING AN ORGANOSELENIUM COMPOUND AS AN INNOVATIVE APPROACH TO SENSITIZE MDR CELLS: AN IN VITRO STUDY

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P-NANO-2 Toxicity of polystyrene micro- and nano-plastics in human A549 lung cells

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P-NANO-3 NEUROTOXICITY ASSESSMENT OF Cd/Se QUANTUM DOTS NANOPARTICLES IN T98G HUMAN GLIOBLASTOMA CELLS THROUGH A TRANSCRIPTOMIC APPROACH

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P-NANO-4 New development for studying the genotoxicity of nanomaterials in liver cell models

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P-NANO-5 INVOLVEMENT OF OXIDATIVE STRESS AND CALCIUM SIGNALING IN NICKEL OXIDE NANOPARTICLES – INDUCED ALTERATIONS IN HUMAN PULMONARY ARTERY ENDOTHELIAL CELLS

Ophélie Germande^{P1,2}, Sabrina Lacomme^{3,2}, Etienne Gontier^{3,2}, Jean – François Quignard^{1,2}, Roger Marthan^{1,2,4}, Magalie Baudrimont^{5,2}, Christelle Guibert^{1,2}, Juliette Deweydt ^{*1,2}, Isabelle Baudrimont * ^{*equal contribution}^{6,7}

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P-NANO-6 Cytotoxicity of nanomixtures: effects of silver and polystyrene nanoparticles on human macrophages

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P-NANO-7 Erythrocyte photoassay as a preliminary tool to evaluate potential photoprotective activity of guarana-loaded nanosomes

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P-NANO-8 Exposure to polystyrene micro- and nano-plastics modifies the lipidome of zebrafish liver cells.

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P-NANO-9 In vitro phototoxicity assessment of nanoparticles

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P-NANO-10 Effects of gold nanoparticles with protein corona on immune cell heterogeneity and cellular differentiation : A single cell based, high-dimensional mass cytometry study

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P-NANO-11 **Determinations of reactive oxygen species and reduced glutathione in liver and colorectal cells treated with selenium nanoparticles modified with polyphenols from olive pomace extract**

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P-NANO-12 **Study of the toxicity and the antimicrobial activity of different forms of ZnO nanoparticles: ZnO nanoparticles linked to graphene, pristine ZnO nanoparticles and ZnO nanoparticles doped with Mn**

Natalia Fernández-Pampín¹, Rocío Barros¹, Sonia Martel Martín¹, Olavo Cardozo^{2,3}, Andreas Stingl², Patricia Farias^{2,4}, Alejandra García-Gómez⁵, Elisa Peña⁵, Carlos Rumbo¹, Juan Antonio Tamayo-Ramos¹

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