

(사)한국독성학회/한국환경성독물연변이발암원학회

2025 제41차 정기학술대회

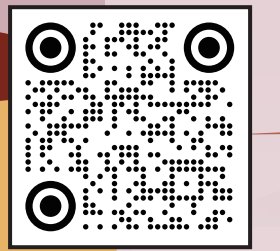
미래 세대를 위한 독성학: 안전을 넘어 건강하고 지속가능한 사회로

The 41st Annual Meeting of KSOT/KEMS

Beyond Safety: Advancing Toxicology for a Healthier Future and Sustainable Society

November 17 (Mon) ~ 19 (Wed), 2025

- Venue : International Convention Center Jeju, Korea



The 41st Annual Meeting App.

Plenary Lectures



Next-Generation Predictive Toxicology: Scaling Zebrafish *in Vivo* Phenotypic Screening

Robyn L. Tanguay
Vice President-Elect of SOT, Oregon State University, USA



Detoxification of Chalcogen Elements, Selenium and Tellurium in Animals

Yasumitsu Ogra
Chiba University, Japan



Advancing Standards to Support Translation of Stem Cells and Organoids

Tongbiao Zhao
Chinese Academy of Sciences, Beijing, China

Special Lectures



Bridging Science, Risk Assessment, and Regulatory Challenges in Inhalation Toxicology: Titanium Dioxide and Beyond

Gustav Bruer
Fraunhofer ITEM, Germany



80th Anniversary of Liberation : The History and Future of Toxicology in Korea

Ki Taek Nam
Yonsei University, Korea

Scientific Sessions

Session 1: (JSOT-KSOT Joint Session) Human-Relevant Toxicology: Stem Cells, Organoids, & MPS

Session 2: Reproductive Toxicity

Session 3: Development of Integrated Omics-Based Safety Prediction Evaluation Technology Using AI

Session 4: Innovative Technologies in Toxicology

Session 5: AI Application in Toxicology

Session 6: Recent Cosmetics Risk Assessment

Session 7: Organoid-Based Modeling for Respiratory Toxicity Assessment

Session 8: Young Scientist Forum

Session 9: KSOT Poster of Distinction

Award Lecture

KSOT Unbong Academic Research Award Presentation

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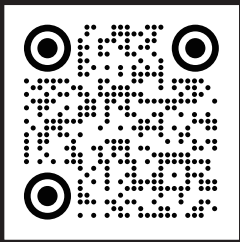
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The 41st Annual Meeting App.

November 17, 2025 (Monday)			
12:00	Registration		
12:00-13:00	Council Meeting		
13:00-13:20	Welcome Remarks Kyung-Chul Choi (President of KSOT, Chungbuk National University) Seogyoun Kang (Director General, National Institute of Food and Drug Safety Evaluation) Jeong-Doo Heo (President of Korea Institute of Toxicology)		
13:20-14:00	Plenary Lecture I Chairperson: Young-Jin Chun (Chung-Ang University)		
	Next-Generation Predictive Toxicology: Scaling Zebrafish <i>in Vivo</i> Phenotypic Screening Robyn L. Tanguay (Vice President-Elect of SOT, Oregon State University, USA)		
14:00-15:30	Session 1: (JSOT-KSOT Joint Session) Human-Relevant Toxicology: Stem Cells, Organoids, & MPS Chairperson: Minsoo Noh (Seoul National University)	Session 2: Reproductive Toxicity Chairperson: Jeong-Hwan Che (Seoul National University Hospital)	
	14:00-14:25 Development of an Intestinal Model for Drug Discovery Using iPS Cell, Organoid, and Organ-on-a-Chip Technologies Kazuo Takayama (Institute of Science Tokyo, Japan)	14:00-14:30 Development and Relevance Validation of High-Throughput Methods for Developmental Toxicity Screening Seung-Jin Lee (Korea Institute of Toxicology)	
	14:25-14:45 Development of hiPSC-Derived Liver Organoids as an Alternative Toxicity Testing Model Han-Jin Park (Korea Institute of Toxicology)	14:30-15:00 Deep Learning Model to Predict Synergistic Reproductive Toxicity of Consumer Product Mixtures Jongwoon Kim (Korea Research Institute of Chemical Technology)	
	14:45-15:10 Practical Applications and Challenges of Safety Evaluation Using Complex <i>in Vitro</i> Models in the Pharmaceutical Industry Takuma Iguchi (Daiichi Sankyo Co., Ltd., Japan)	15:00-15:30 Evaluation of Exosome-Derived BPA on the Reproductive and Developmental Toxicity Beum-Soo An (Pusan National University)	
	15:10-15:30 Neurotoxicity Evaluation of Spironolactone Using Neural Stem Cells Hyun-Jung Kim (Chung-Ang University)		
15:30-15:50	Coffee Break / Poster Session		
15:50-16:30	Plenary Lecture II Chairperson: Keon Wook Kang (Seoul National University)		
	Detoxification of Chalcogen Elements, Selenium and Tellurium in Animals Yasumitsu Ogra (Chiba University, Japan)		
16:30-18:00	Session 3: Development of Integrated Omics-Based Safety Prediction Evaluation Technology Using AI (Sponsored by NIFDS) Chairperson: SangAeh Park (National Institute of Food and Drug Safety Evaluation)	Session 4: Innovative Technologies in Toxicology Chairperson: Hyun-Jung Kim (Chung-Ang University)	
	16:30-17:00 A Cohort Study Integrating Multi-Omics for Precision Therapeutics in Cardiovascular, Kidney, and Metabolic Health Soo Heon Kwak (Seoul National University Hospital)	16:30-17:00 Bridging Data Gaps and Biases in Public Bio-Big Data for AI-Driven Alternatives to Animal Testing Minsoo Noh (Seoul National University)	
	17:00-17:30 Data Science Approaches to Multi-Omics Analysis for Drug Response and Toxicity Prediction Seunggeun Lee (Seoul National University)	17:00-17:30 Holotomography and Artificial Intelligence: Label-Free 3D Imaging, Classification, and Inference of Live Unlabeled Organoids YongKeun Park (KAIST, Tomocube)	
	17:30-18:00 Translational Metabolomics: LC-MS/MS-Driven Biomarker Discovery in Diabetic Kidney Disease and Glaucoma Hyunbeom Lee (Korea Institute of Science and Technology)	17:30-18:00 Toxicity Evaluation Platform Using a Respiratory Airway Organoid Model Sang-Yun Lee (Chungnam National University)	
18:00-18:20	General Assembly		
18:20	Banquet		

November 18, 2025 (Tuesday)			
09:00-09:30	KSOT Unbong Academic Research Award Presentation Chairperson: Kyu-Bong Kim (Dankook University)		
	NRF2-Mediated Regulation of HIF-2α and Cancer Stem Cell Properties Mi-Kyoung Kwak(The Catholic University of Korea)		
09:30-11:00	Session 5: AI Application in Toxicology Chairperson: Ji-Eun Kim (The Catholic University of Korea)	Session 6: Recent Cosmetics Risk Assessment Chairperson: Kyung-Min Lim (Ewha Womans University)	
	09:30-10:00 Adverse Outcome Pathway Framework Based Explainable AI Model for Toxicity Prediction Jinhee Choi (University of Seoul)	09:30-10:00 Advancement of Cosmetic Risk Assessment : Current Trends and Challenges in Cosmetics Ingredients (Others) and Colorants Jung Dae Lee (Dankook University)	
	10:00-10:30 Toxicity Prediction in AI Agent Era Hyun Kil Shin (Korea Institute of Toxicology)	10:00-10:30 Safety Assessment of Cosmetic Ingredients: Practical Case Studies Woo-Hyuck Choi (LG H&H)	
	10:30-11:00 Machine Learning-Driven Prediction of Clinical Toxicity from a Curated Database Myeong Gyu Kim (Ewha Womans University)	10:30-11:00 Recent Trends in New Approach Methodologies for Safety Assessment of Cosmetics Taehyung Yoon (National Institute of Food and Drug Safety Evaluation)	
11:00-11:20	Coffee Break		
11:20-12:00	Plenary Lecture III Chairperson: Mi-Kyoung Kwak (The Catholic University of Korea)		
	Advancing Standards to Support Translation of Stem Cells and Organoids Tongbiao Zhao (Chinese Academy of Sciences, China)		
12:00-13:30	Lunch Poster Session		
13:30-14:10	Special Lecture I Chairperson: Kyuhong Lee (Korea Institute of Toxicology)	Special Lecture II Chairperson: Donghak Kim (Konkuk University)	
	Bridging Science, Risk Assessment, and Regulatory Challenges in Inhalation Toxicology: Titanium Dioxide and Beyond Gustav Bruer (Fraunhofer ITEM, Germany)	80th Anniversary of Liberation : The History and Future of Toxicology in Korea Ki Taek Nam (Yonsei University)	
14:10-15:40	Session 7: Organoid-Based Modeling for Respiratory Toxicity Assessment Chairperson: Taehoon Shin (Jeju National University)	Session 8: Young Scientist Forum Chairperson: Bumseok Kim (Jeonbuk National University)	
	14:10-14:40 Lung Organoids as a Model for Unraveling the Cellular and Molecular Toxicity of Air Pollutants Seok-Ho Hong (Kangwon National University)	14:10-14:35 3D Human Liver Organoids to Model "Liver Disease in a Dish" Hyun Young Kim (Dankook University)	
	14:40-15:10 Organoid Modelling of Human Alveolar Development and Lung Diseases Kyungtae Lim (Korea University)	14:35-15:00 Induction of IgE in Non-Allergic Conditions Jaechul Lim (Seoul National University)	
	15:10-15:40 Toxicity Assessment of Industrial Chemical Substances in the Respiratory System Se-Ran Yang (Kangwon National University)	15:00-15:25 Next-Generation Gene and Cell Therapeutics in Alzheimer's Disease Hanseul Park (Chungbuk National University)	
		15:25-15:50 Leveraging Chief Cell-Derived Organoids to Study Cancer Development Mechanisms Haengdueng Jeong (Hanyang University)	
15:50-16:10	Awards Ceremony & Closing Remarks		

November 19, 2025 (Wednesday)			
09:00-11:00	Session 9: KSOT Poster of Distinction Chairperson: Doyoung Kwon (Jeju National University) Ji Won Kim (Jeju National University)		
	Eight awardees oral presentation		