

| The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Oral Session |       |  |  |  |   |
|---|-------|--|--|--|---|
| Start   | End   | Day1 (6/27)  |  |  |   |
| 10:30   | 12:00 | Code 1. Exposure factors and children's health (Chair: Hae-Kwan Cheong, Myriam Tobollik) |  |  |   |
|   |       | Code   | Authors  | Affiliation  |   |
|   |       |  |  | Abstract title   |   |
|   |       | O01-1  | Else Toft Würtz <sup>1</sup> , Johnni Hansen <sup>2</sup> , Oluf Dimitri Røe <sup>3,4,5</sup> , Øyvind Omland <sup>1,6</sup>   | Aalborg University Hospital Department of Occupational Medicine, Danish Ramazzini Centre <sup>1</sup> , Danish Cancer Society Danish Cancer Society Research Center <sup>2</sup> , Levanger Hospital, Nord-Trøndelag Health Trust Cancer Clinic <sup>3</sup> , Norwegian University of Science and Technology Department of Clinical Research and Molecular Medicine <sup>4</sup> , Aalborg University Hospital Clinical Cancer Research Center, Department of Clinical Medicine <sup>5</sup> , Aalborg University Department of Clinical Medicine   | Environmental childhood asbestos exposure and hematologic malignancies – a Danish register study                                  |
|   |       | O01-2  | Jungkwan Seo <sup>1</sup>  | National Institute of Environmental Health Risk Assessment Division <sup>1</sup>   | Korean Child-specific Exposure Factors for Risk Assessment  |
|   |       | O01-3  | Myriam Tobollik <sup>1</sup> , Dietrich Plass <sup>1</sup>   | German Environment Agency Exposure assessment and environmental health indicators <sup>1</sup>   | Challenges in assessing the risk of environmental factors on children's health – the example of particulate matter in ambient air |
|   |       | O01-4  | Dimitris Panagiotis Chapizanis <sup>1</sup> , Spyros Panagiotis Karakitsios <sup>1,2</sup> , Denis Andreas Sarigiannis <sup>1,2</sup>  | Aristotle University of Thessaloniki Chemical Engineering <sup>1</sup> , University of Pavia Institute for Advanced Study <sup>2</sup>   | A personal exposure agent-based model with the capacity for aggregation at various levels of population size                      |
|   |       | O01-5  | Vinitha Vincent <sup>1</sup> , Yuvaraj Selvaraj <sup>1</sup> , Janani Selvaraj <sup>1</sup> , Prashanthi Devi Marimuthu <sup>1</sup>   | Bharathidasan University Environmental Management <sup>1</sup>   | GIS Based Application to Access Malnutrition among Under Five Children in Tiruchirappalli Region of TamilNadu, India              |
| 10:30   | 12:00 | Code 2. Exposure Monitoring technology (Chair: Yun-Chul Hong, Beate Ritz)                |  |  |   |
|   |       | Code   | Authors  | Affiliation  |   |
|   |       |  |  | Abstract title   |   |
|   |       | O02-1  | Miyoung Lim <sup>1</sup> , Ji Young Park <sup>2</sup> , Kiyouna Lee <sup>1,2</sup>   | Seoul National University Graduate School of Public Health <sup>1</sup> , Seoul National University Institute of Health and Environment <sup>2</sup>   | Estimation of children's dermal exposure to preservatives in modelling clays and slimes   |
|   |       | O02-2  | Garry Codling <sup>1</sup> , Veronkia Schacht <sup>1</sup> , Alin Ionas <sup>1</sup> , Jiri Palat <sup>1</sup> , Ana Miralles-Marco <sup>1</sup> , Jana Klanova <sup>1</sup>   | Masaryk University RECETOX <sup>1</sup>  | Investigation of Serum from Oncology Patients under 18 years of age by High-Resolution Mass Spectrometry in Full Scan Acquisition |
|   |       | O02-3  | Mallanagouda M Patil <sup>1</sup> , Bhavana B Lakhkar <sup>2</sup> , Shankargouda V Patil <sup>3</sup>   | BLDE (Deemed To Be University) Vijayapur Karnataka India 586103 Pediatrics <sup>1</sup> , BLDE (Deemed To Be University) Vijayapur Karnataka India 586103 Pediatrics <sup>2</sup> , BLDE (Deemed To Be University) Vijayapur Karnataka India 586103 Pediatrics <sup>3</sup>  | Profile of Childhood Poisoning at a Tertiary Care Centre in Vijayapur   |
|   |       | O02-4  | Ahmet Ozgur Dogru <sup>1</sup> , Asli Kahraman <sup>2</sup> , Dursun Zafer Seker <sup>1</sup> , Nuket Sivri <sup>3</sup>   | ITU, Istanbul Technical University Department of Geomatics Engineering <sup>1</sup> , ITU, Istanbul Technical University Informatics Institute <sup>2</sup> , Istanbul University Environmental Engineering <sup>3</sup>   | GIS Based Evaluation of Environmental Indicators on Children Health in Turkey   |
|   |       | O02-5  | Chen I Chun <sup>1</sup> , Chang Chia Huang <sup>1</sup> , Yu Ching Jung <sup>1</sup> , Du Jung Chieh <sup>2</sup> , Chiou Hsien Chih <sup>3</sup> , Yang Winnie <sup>4</sup> , Chen Ying Sheue <sup>5</sup> , Hwang Betau <sup>3</sup> , Mao I Fang <sup>6</sup> , Chen Mei Lien <sup>1</sup>                   | National Yang Ming University, School of Medicine, Institute of Environmental and Occupational Health Sciences <sup>1</sup> , Taipei City Hospital, Zhongxiao branch, Pediatrics <sup>2</sup> , Taipei City Hospital, Songde branch, Child and Adolescent Psychiatry <sup>3</sup> , Taipei City Hospital, Yangming branch, Pediatrics <sup>4</sup> , Taipei Veterans General Hospital, Psychiatry <sup>5</sup> , Chung Shan Medical University, Occupational Safety and Health <sup>6</sup>  | Urinary concentrations of acrylamide and acrolein metabolites of children in Taiwan   |
| 14:15   | 15:45 | Code 3. Developing countries and CEH (Chair: Rokho Kim, Jerome A Paulson)                |  |  |   |
|   |       | Code   | Authors  | Affiliation  |   |
|   |       |  |  | Abstract title   |   |
|   |       | O03-1  | John Yabe <sup>1</sup> , Haruya Toyomaki <sup>2</sup> , Shouta MM Nakayama <sup>2</sup> , Yared B Yohannes <sup>2</sup> , Hokuto Nakata <sup>2</sup> , Kaampwe Muzandu <sup>1</sup> , Andrew Kataba <sup>1,2</sup> , Jack Caravanos <sup>3</sup> , Yoshinori Ikenaka <sup>2</sup> , Mayumi Ishizuka <sup>2</sup> | University of Zambia Paraclinical Studies <sup>1</sup> , Hokkaido University Toxicology Laboratory <sup>2</sup> , Hokkaido University Toxicology Laboratory <sup>3</sup> , Hokkaido University Toxicology Laboratory <sup>4</sup> , Hokkaido University Toxicology Laboratory <sup>5</sup> , University of Zambia, School of Veterinary Medicine Biomedical Sciences Department <sup>6</sup> , University of Zambia, School of Veterinary Medicine Biomedical Sciences Department <sup>7</sup> , PureEarth PureEarth <sup>8</sup> , Hokkaido University Toxicology Laboratory <sup>9</sup> , Hokkaido University Toxicology Laboratory <sup>10</sup> | Current Trends of Childhood Blood Lead Levels and Exposure Patterns in Kabwe, Zambia  |
|   |       | O03-2  | Paramesh Haralappa <sup>1</sup> , Rashmi Cherian Paramesh <sup>2</sup>   | Lakeside Center for Health Promotion Pediatric Pulmonology & Environmental Health <sup>1</sup> , Lakeside Center for Health Promotion Department of Pediatrics <sup>2</sup>  | Impact of Community Education and Social determinants on Air pollution in Controlling and Preventing Airway Diseases in Children  |
|   |       | O03-3  | Carmen M Velez-Vega <sup>1</sup> , Zaira Rosario-Pabon <sup>2</sup> , Colleen Murphy <sup>1</sup> , Phil Brown <sup>3</sup> , Jose Cordero <sup>2</sup> , John Meeker <sup>4</sup> , Akram Alshawahkeh <sup>5</sup>  | University of Puerto Rico Medical Sciences Campus School of Public Health <sup>1</sup> , University of Georgia College of Public Health <sup>2</sup> , Northeastern University Social Science and Environmental Health Research Institute <sup>3</sup> , University of Michigan School of Public Health <sup>4</sup> , Northeastern University College of Engineering <sup>5</sup>   | Community Engagement and Research Translation to PROTECT Environmental Health for Mothers and Infants in Puerto Rico              |
|   |       | O03-4  | Oyunchimeg M.1, Burmaajav B.2  | 1National Center for Public Health<br>2Mongolian Academy of Medical Sciences   | Correlation between soil bacterial contamination and diarrheal diseases among children aged 0-5 years in Ulaanbaatar city         |
|   |       | O03-5  | Hari Datt Joshi <sup>1</sup>   | Tri-Chandra Multiple Campus, Tribhuvan University, Kathmandu Department of Environmental Science <sup>1</sup>  | Children Environmental Health Situation in Nepal  |

| The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Oral Session |       |  |   |   |  |
|---|-------|--|---|---|--|
| Start   | End   | Day1 (6/27)  |   |   |  |
| 14:15   | 15:45 | Code 4. Ignite Code (Chair: Ruth A. Etzel, Peter van den Hazel)  |   |   |  |
|   |       | Code   | Authors   | Affiliation   |  |
|   |       |  |   | Abstract title  |  |
|   |       | O04-1  | Yun-Chul Hong   | Seoul National University College of Medicine   | Pre- and Postnatal exposure to bisphenol A and phthalate in relation to neuro-development of children                    |
|   |       | O04-2  | Peter van den Hazel   | INCHES  | Susceptible window period to heavy metal exposure  |
|   |       | O04-3  | Ruth A. Etzel   | Office of Children's Health Protection<br>U.S. Environmental Protection Agency  | How to best engage clinicians in prevention of exposures to children: Specialists or generalists?                        |
|   |       | O04-4  | Youn-Hee Lim  | Seoul National University College of Medicine   | short biological half-life of bisphenol A and trajectory analysis  |
|   |       | O04-5  | Sungkyun Kim  | Seoul National University Graduate School of Public Health  | Different biological half-lives among chemicals  |
| 16:00   | 17:30 | Code 5. Cognitive development of children in relations to environmental exposures (Chair: Eunhee Ha, Kinga Polanska) |   |   |  |
|   |       | Code   | Authors   | Affiliation   |  |
|   |       |  |   | Abstract title  |  |
|   |       | O05-1  | Xiaoqi Feng <sup>1,2</sup> , Thomas Astell-Burt <sup>1,2</sup>  | University of Wollongong Population Wellbeing and Environment Research Lab (PowerLab), Faculty of Social Sciences <sup>1</sup> , University of Sydney Menzies Centre for Health Policy <sup>2</sup>   | Green space quantity and quality matter for child mental wellbeing: a multilevel longitudinal study                      |
|   |       | O05-2  | Woo-Seok Lee <sup>1</sup> , Youn-Hee Lim <sup>2</sup> , Bung-Nyun Kim <sup>3</sup> , Choong Ho Shin <sup>4</sup> , Young Ah Lee <sup>4</sup> , Johanna Inhyang Kim <sup>3</sup> , Yun-Chul Hong <sup>1,2,5</sup>  | Seoul National University College of Medicine, Seoul 03080 Department of Preventive Medicine <sup>1</sup> , Seoul National University Medical Research Center, Seoul 03080 Institute of Environmental Medicine <sup>2</sup> , Seoul National University College of Medicine, Seoul 03080 Division of Child and Adolescent Psychiatry, Department of Psychiatry <sup>3</sup> , Seoul National University College of Medicine, Seoul 03080 Department of Pediatrics <sup>4</sup> , Seoul National University College of Medicine, Seoul 03080 Environmental Health Center <sup>5</sup>  | Pyrethroid pesticide is Associated with Attention Deficit/Hyperactivity Disorder symptom in 4-year old children          |
|   |       | O05-3  | Mihye Lee <sup>1</sup> , Mina Ha <sup>2</sup>   | St. Luke's Int'l University School of Public Health <sup>1</sup> , Dankook University Department of Preventive Medicine <sup>2</sup>  | Community Greenness and Neurobehavioral Development in Children and Adolescents  |
|   |       | O05-4  | Ji-Young Lee <sup>1</sup> , Lamichhane Kumar Dirga <sup>2</sup> , Shinhee Ye <sup>1</sup> , Seulbi Lee <sup>1</sup> , Hwan-Cheol Kim <sup>2</sup> , Jong-Han Leem <sup>2</sup> , Yun-Chul Hong <sup>3</sup> , Yangho Kim <sup>4</sup> , Mina Ha <sup>2</sup> , Eunhee Ha <sup>1</sup> | Ewha Womans University Department of environmental and occupational medicine, School of Medicine <sup>1</sup> , Inha University School of Medicine, Incheon, South Korea Department of Occupational and Environmental Medicine <sup>2</sup> , Seoul National University Department of Preventive Medicine, College of Medicine <sup>3</sup> , Ulsan University Hospital, University of Ulsan College of Medicine Department of Occupational and Environmental Medicine <sup>4</sup> , Dankook University Department of Preventive Medicine, College of Medicine <sup>5</sup>  | Preventive effect of green space on childhood neurodevelopment associated with air pollution exposure                    |
| 16:00   | 17:30 | Code 6. Children growth/puberty and environment (Chair: Hilary Ong, Rashmi Cheria Paramesh)                          |   |   |  |
|   |       | Code   | Authors   | Affiliation   |  |
|   |       |  |   | Abstract title  |  |
|   |       | O06-1  | Laxmi Singh <sup>1</sup> , Madhu Anand <sup>1</sup> , Ajay Taneja <sup>1</sup>  | Dr. B. R. Aambedkar, University, Agra Department of Chemistry, Khandari Campus <sup>1</sup>   | BURDEN OF METALS IN PLACENTA AND POSSIBLE ASSOCIATION WITH WEIGHT OF BABIES  |
|   |       | O06-2  | Qian Chen <sup>1</sup> , Lisu Huang <sup>2</sup> , Jun Zhang <sup>1</sup>   | Shanghai Jiao Tong University School of Medicine Ministry of Education-Shanghai Key Laboratory of Children's Environmental Health, Xinhua Hospital <sup>1</sup> , Shanghai Jiao Tong University School of Medicine Department of Pediatrics, Xinhua Hospital <sup>2</sup>   | Prenatal exposure to Perfluorobutanesulfonic acid (PFBS) and childhood adiposity at 5 years of age                       |
|   |       | O06-3  | Hyun-Ju Cho <sup>1</sup> , Hyo-Bin Kim <sup>2</sup> , So-Yeon Lee <sup>3</sup> , Song-I Yang <sup>4</sup> , Dong In Suh <sup>5</sup> , Hwan-Cheol Kim <sup>6</sup> , Kyung Won Kim <sup>7</sup> , Kangmo Kim <sup>8</sup> , Youn Ho Shin <sup>9</sup> , Soo-Jong Hong <sup>3</sup>    | International St. Mary's hospital, Catholic Kwandong University, Incheon Pediatrics <sup>1</sup> , Inje University Sanggye Paik, Seoul Pediatrics <sup>2</sup> , Childhood Asthma Atopy Center, Environmental Health Center, Asan Medical Center, University of Ulsan College of Medicine, Seoul Pediatrics <sup>3</sup> , Hallym University Sacred Heart Hospital, Hallym University College of Medicine, Anyang Pediatrics <sup>4</sup> , Seoul National University College of Medicine, Seoul Pediatrics <sup>5</sup> , Inha University School of Medicine, Incheon Occupational and Environmental Medicine <sup>6</sup> , Yonsei University College of Medicine, Seoul Pediatrics <sup>7</sup> , Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul Pediatrics <sup>8</sup> , CHA Gangnam Medical Center, CHA University School of Medicine, Seoul Pediatrics <sup>9</sup> | Maternal Exposure to Particulate Matter 2.5 during pregnancy and growth at birth and postnatal period in the COCOA Study |
|   |       | O06-4  | Hilary Ong <sup>1</sup> , Samantha Hunter <sup>2</sup> , Colleen Azen <sup>2</sup> , Bat-Erdene Erdenedalai <sup>3</sup> , Otgonbaatar Jugder <sup>4</sup> , Bayalag Munkhuu <sup>5</sup> , David Warburton <sup>2</sup>  | Children's National Medical Center Division of Emergency Medicine <sup>1</sup> , Children's Hospital Los Angeles Department of Pediatrics <sup>2</sup> , National Center for Maternal and Child Health Department of Radiology <sup>3</sup> , National Center for Maternal and Child Health Department of Obstetrics and Gynecology <sup>4</sup> , National Center for Maternal and Child Health Department of Pediatrics <sup>5</sup>  | Seasonal Patterns of Fetal Growth and Air pollution in Ulaanbaatar, Mongolia   |
|   |       | O06-5  | Youn-Hee Lim <sup>1</sup> , Sanghyuk Bae <sup>2</sup> , Ji-hoo Yook <sup>3</sup> , Hyun Joo Bae <sup>4</sup> , Yun-Chul Hong <sup>1,3</sup>   | Seoul National University College of Medicine Environmental Health Center <sup>1</sup> , Dankook University Department of Preventive Medicine <sup>2</sup> , Seoul National University College of Medicine Department of Preventive Medicine <sup>3</sup> , Korea Environment Institute Department of Environmental health <sup>4</sup>   | Maternal exposure to particulate matter during early pregnancy affects fetal cardiac abnormalities                       |

| The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Oral Session |       |  |   |
|---|-------|--|---|
| Start   | End   | Day2 (6/28)  |   |
| 8:45  | 10:15 | Code 7. Asthma and Respiratory Diseases (Humidifier disinfectant) (Chair: Hae-Kwan Cheong) |   |
|   |       | Code   | Authors   |
|   |       |  | Affiliation   |
|   |       |  | Abstract title  |
|   |       | O07-1  | Jisun Yoon <sup>1</sup> , Seung-Hwa Lee <sup>2</sup> , So-Yeon Lee <sup>3</sup> , Jae-Rin Ahn <sup>2</sup> , Han-Na Go <sup>2</sup> , Eun Mi Kim <sup>2</sup> , Sungsu Jung <sup>3</sup> , Hyun-Ju Cho <sup>4</sup> , Eun Lee <sup>5</sup> , Soo-Jong Hong <sup>3</sup>   |
|   |       |  | Mediplex Sejong Hospital Department of Pediatrics <sup>1</sup> , University of Ulsan College of Medicine Asan Institute for Life Sciences <sup>2</sup> , Childhood Asthma Atopy Center, Environmental Health Center, Asan Medical Center, University of Ulsan College of Medicine Department of Pediatrics <sup>3</sup> , International St. Mary's hospital, Catholic Kwandong University Department of Pediatrics <sup>4</sup> , Chonnam National University College of Medicine Department of Pediatrics <sup>5</sup>   |
|   |       |  | Exposure to humidifier disinfectants increases the risk of asthmain children via a profibrogenic mechanism  |
|   |       | O07-2  | Chorong Park <sup>1</sup> , Yunsun Kim <sup>1</sup> , Sangyoung Kim <sup>1</sup> , Sungho Won <sup>2</sup> , Soo-Jong Hong <sup>3</sup> , Hyeon-Jong Yang <sup>1,4</sup>  |
|   |       |  | Soonchunhyang University Seoul Hospital SCH Biomedical Informatics Research Unit <sup>1</sup> , Institute of Health and Environment, Seoul National University Department of public health science, Interdisciplinary Program of Bioinformatics <sup>2</sup> , Asan Medical Center, University of Ulsan College of Medicine Department of Pediatrics, Childhood Asthma Atopy Center, Environmental Health Center <sup>3</sup> , Soonchunhyang University Seoul Hospital, Soonchunhyang University College of Medicine Pediatric Allergy and Respiratory Center, Department of Pediatrics <sup>4</sup> |
|   |       |  | Time series analysis of incidence of asthma before and after stopping sales of humidifier disinfectant  |
|   |       | O07-3  | Jong Han Leem <sup>1</sup> , Dirga Kumar Lamichhane <sup>1</sup>  |
|   |       |  | Inha University Occupational and Environmental Medicine <sup>1</sup>  |
|   |       |  | Dose-response relationships between interstitial pneumonitis and the exposure of humidifier disinfectants in humidifier disinfectants victims and family based control groups.  |
|   |       | O07-4  | Jaiyong Kim <sup>1</sup>  |
|   |       |  | Hanyang University Institute for Health and Society <sup>1</sup>  |
|   |       |  | Health damage of Humidifier Disinfectant by big data analysis in Korea  |
| 8:45  | 10:15 | Code 8. Toxic Metals (Chair: Yun-Chul Hong, Stephan Bose-O'Reilly)                         |   |
|   |       | Code   | Authors   |
|   |       |  | Affiliation   |
|   |       |  | Abstract title  |
|   |       | O08-1  | Lihua Huang <sup>1</sup> , Jian Xu <sup>1</sup> , Aaron Specht <sup>2</sup> , Chonghuai Yan <sup>1</sup> , Hongquan Geng <sup>3</sup> , Howard Hu <sup>4</sup>  |
|   |       |  | Shanghai Institute for Pediatric Research, Shanghai Jiao Tong University School of Medicine MOE-Shanghai Key Laboratory of Children's Environmental Health, Department of Child and Adolescent Healthcare <sup>1</sup> , Purdue University School of Health Sciences <sup>2</sup> , Xinhua Hospital affiliated to Shanghai Jiao Tong University School of Medicine Department of Pediatric Surgery <sup>3</sup> , University of Toronto Dalla Lana School of Public Health <sup>4</sup>   |
|   |       |  | Blood lead, bone lead and child attention-deficit-hyperactivity-disorder-like behavior  |
|   |       | O08-2  | Woo-Sung Kim <sup>1</sup> , Youn-Hee Lim <sup>2</sup> , Bung-Nyun Kim <sup>3</sup> , Choong Ho Shin <sup>4</sup> , Young Ah Lee <sup>4</sup> , Johanna Inhyang Kim <sup>3</sup> , Yun-Chul Hong <sup>5</sup>  |
|   |       |  | Seoul National University College of Medicine Department of Preventive Medicine <sup>1</sup> , Seoul National University Medical Research Center Institute of Environmental Medicine <sup>2</sup> , Seoul National University Hospital Division of Children and Adolescent Psychiatry <sup>3</sup> , Seoul National University Children's Hospital Department of Pediatrics <sup>4</sup> , Seoul National University College of Medicine Environmental Health Center <sup>5</sup>   |
|   |       |  | The Effects of Maternal Cadmium Exposure and Attention Deficit Hyperactivity Disorder in Children 6 years of Age.   |
|   |       | O08-3  | Ratchaneewan Sinitkul <sup>1,2,3</sup> , Richard J Maude <sup>2,3,4</sup> , Teerarat Tassanapitkul <sup>1</sup> , Adisak Plitponkarnpim <sup>1</sup>  |
|   |       |  | Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, Pediatrics Department <sup>1</sup> , Faculty of Tropical Medicine, Mahidol University, Bangkok, Mahidol-Oxford Tropical Medicine Research Unit <sup>2</sup> , Nuffield Department of Medicine, University of Oxford, Oxford, Centre for Tropical Medicine and Global Health <sup>3</sup> , Harvard University, Boston, Harvard Th Chan School of Public Health <sup>4</sup>  |
|   |       |  | The Prevalence of and Factors Associated with Lead Exposure in Children in Bangkok and two Industrialized Provinces in Thailand   |
|   |       | O08-4  | Denis Sarigiannis <sup>1,2,3</sup> , Kinga Polanska <sup>4</sup> , Wojciech Hanke <sup>4</sup> , Athanasios Salifoglou <sup>5</sup> , Nafsika Papaioannou <sup>2</sup> , Evagelos Handakas <sup>2</sup> , Catherina Gabriel <sup>2,5</sup> , Spyros Karakitsios <sup>1,2,3</sup>  |
|   |       |  | Aristotle University of Thessaloniki, HERACLES Research Unit on Health and the Exposome, Centre for Interdisciplinary Research and Innovation <sup>1</sup> , Aristotle University of Thessaloniki, Department of Chemical Engineering, Environmental Engineering Laboratory <sup>2</sup> , Institute of Advanced Study, Environmental Health Engineering <sup>3</sup> , Nofer Institute of Occupational Medicine, Children's Environmental Health <sup>4</sup> , Aristotle University of Thessaloniki, Department of Chemical Engineering, Inorganic Chemistry Laboratory <sup>5</sup>                |
|   |       |  | Pathway analysis of prenatal exposure to heavy metals related child motor development   |
|   |       | O08-5  | Jane J Lee <sup>1,2</sup> , Linda Valeri <sup>3,4</sup> , Kush Kapur <sup>2</sup> , Md Omar Sharif Ibne Hasan <sup>5</sup> , Quazi Quamruzzaman <sup>5</sup> , Robert O Wright <sup>6</sup> , David C Bellinger <sup>1,2</sup> , David C Christiani <sup>1</sup> , Maitreyi Mazumdar <sup>1,2</sup>   |
|   |       |  | Harvard T.H. Chan School of Public Health Department of Environmental Health <sup>1</sup> , Boston Children's Hospital Department of Neurology <sup>2</sup> , McLean Hospital Psychiatric Biostatistics Laboratory <sup>3</sup> , Harvard Medical School Department of Psychiatry <sup>4</sup> , Dhaka Community Hospital Dhaka Community Hospital <sup>5</sup> , Icahn School of Medicine at Mount Sinai Department of Preventive Medicine <sup>6</sup>  |
|   |       |  | Protective effects of maternal protein intake during pregnancy on early childhood neurodevelopment among a population with environmental metal exposures  |
| 14:15   | 15:45 | Code 9. Korean Children's Environmental health Study (Chair: Eunhee Ha, Ruth A. Etzel)     |   |
|   |       | Code   | Authors   |
|   |       |  | Affiliation   |
|   |       |  | Abstract title  |
|   |       | O09-1  | Jueun Lee <sup>1</sup> , Eunhee Ha <sup>2</sup> , Choong-Hee Park <sup>1</sup> , Woo-Mi Lee <sup>1</sup> , Soon Won Jung <sup>1</sup> , Myeongjee Lee <sup>2</sup> , Seulbi Lee <sup>3</sup> , Suejin Kim <sup>1</sup>  |
|   |       |  | National Institute of Environmental Research Environmental Health Research Department, Environmental Health Research Division <sup>1</sup> , Ewha Womans University Occupational and Environment Medicine, College of Medicine <sup>2</sup> , Ewha Womans University Medical Sciences, College of Medicine <sup>3</sup>   |
|   |       |  | The potential impact and opportunities of 'Big data' for Korean Children's ENvironmental health Study (Ko-CHENS)  |
|   |       | O09-2  | Youn-Hee Lim <sup>1,2</sup> , Kyungshin Lee <sup>1,2</sup> , Yun-Chul Hong <sup>1,2,3</sup>   |
|   |       |  | Seoul National University College of Medicine Environmental Health Center <sup>1</sup> , Seoul National University College of Medicine Institute of Environmental Medicine <sup>2</sup> , Seoul National University College of Medicine Department of Preventive Medicine <sup>3</sup>  |
|   |       |  | Modeling of indoor PM2.5 concentration using machine learning and selected indoor and outdoor environment   |
|   |       | O09-3  | Kyung-Shin Lee <sup>1,2</sup> , Youn-Hee Lim <sup>1,2</sup> , Yun-Chul Hong <sup>1,2,3</sup>  |
|   |       |  | Seoul National University Medical Research Center, Seoul, Institute of Environmental Medicine <sup>1</sup> , Seoul National University College of Medicine, Seoul, Environmental Health Center <sup>2</sup> , Seoul National University College of Medicine, Seoul, Department of Preventive Medicine <sup>3</sup>  |
|   |       |  | Relation between urinary phthalate metabolites concentrations and depressive symptoms in pregnant women.  |
|   |       | O09-4  | Namkyoung Hwang <sup>1</sup> , Mina Ha <sup>1</sup> , Se Chang Ahn <sup>1</sup> , Suejin Kim <sup>2</sup> , Chul Woo Lee <sup>2</sup> , Eunhee Ha <sup>3</sup> , Yangho Kim <sup>4</sup>  |
|   |       |  | Ministry of Environment, Republic of Korea Environmental Health Policy Division <sup>1</sup> , National Institute of Environmental Research, Incheon, Republic of Korea Environmental Health Research Division <sup>2</sup> , Ewha Womans University School of Medicine, Seoul, Republic of Korea Department of Occupational and Environmental Medicine <sup>3</sup> , Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan, Republic of Korea Department of Occupational and Environmental Medicine <sup>4</sup>  |
|   |       |  | An Introduction to Korean Children's Environmental Health Study   |
|   |       | O09-5  | Surabhi Shah <sup>1</sup> , Eunhee Ha <sup>1</sup> , Shin Hee Ye <sup>1</sup> , Yu Min Lee <sup>1</sup> , Eun Mi Jung <sup>1</sup> , Eun Kyo  |
|   |       |  | Ewha Womans University College of Medicine Department of Occupational and Environmental Medicine <sup>1</sup>   |
|   |       |  | Factors associated with prenatal heavy metals concentration in mother's of Ko-CHENS   |

| The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Oral Session |       |  |   |
|---|-------|--|---|
| Start   | End   | Day2 (6/28)  |   |
| 14:15   | 15:45 | Code 10. Children's Health and the global climate change (Chair: Stephan Bose-O'Reilly, Peter van den Hazel) |   |
|   |       | Code   | Authors   |
|   |       |  | Affiliation   |
|   |       |  | Abstract title  |
|   |       | O10-1  | Stephan Bose-O'Reilly <sup>1,2</sup> , Richard Fuller <sup>3</sup> , Philip J Landrigan <sup>4</sup>  |
|   |       |  | University Hospital, LMU Munich Institute and Outpatient Clinic for Occupational, Social and Environmental Medicine <sup>1</sup> , UMIT – University for Health Sciences, Medical Informatics and Technology Institute of Public Health, Medical Decision Making and Health Technology Assessment <sup>2</sup> , Pure Earth Blacksmith Institute <sup>3</sup> , Icahn School of Medicine at Mount Sinai Arnhold Global Health Institute <sup>4</sup>  |
|   |       |  | Global pollution and health   |
|   |       | O10-2  | Jerome A Paulson <sup>1</sup>   |
|   |       |  | George Washington University Milken Institute School of Public Health Environmental & Occupational Health <sup>1</sup>  |
|   |       |  | Organizing for Climate Change Education and Advocacy  |
|   |       | O10-3  | Elizabeth Cherian Paramesh <sup>1</sup> , Roshan Cherian Paramesh <sup>2</sup> , Rashmi Cherian Paramesh <sup>3</sup>   |
|   |       |  | Lakeside Center for Health Promotion Public Health <sup>1</sup> , Lakeside Center for Health Promotion Dentallium <sup>2</sup> , Lakeside Center for Health Promotion Department of Pediatrics <sup>3</sup>   |
|   |       |  | Bridging Inequities in Childrens' Health Promotion - Bangalore Model  |
|   |       | O10-4  | Rajendran Vidyalakshmi <sup>1</sup> , Marimuthu Prashanthi Devi <sup>1</sup>  |
|   |       |  | Bharathidasan University, Tiruchirappalli Environmental Management <sup>1</sup>   |
|   |       |  | Exposure of Children to Microbial Contaminated Drinking Water in School Premises: A review on causes, effects and policy recommendations  |
|   |       | O10-5  | Peter van den Hazel <sup>1</sup>  |
|   |       |  | INCHES INCHES <sup>1</sup>  |
|   |       |  | Public health policies to adapt to climate change and changes in infectious diseases patterns   |
| 8:45  | 10:15 | Code 11. Birth Cohort Consortium in Asia (Chair: Pau-Chung Chen, Eunhee Ha)                                  |   |
|   |       | Code   | Authors   |
|   |       |  | Affiliation   |
|   |       |  | Abstract title  |
|   |       | O11-1  | Yong-Han Lee <sup>1</sup> , Sanghyuk Bae <sup>1</sup> , Ho-Jang Kwon <sup>1</sup> , Eun-Hee Ha <sup>2</sup> , Hyesook Park <sup>3</sup> , Yangho Kim <sup>4</sup> , Yun-Chul Hong <sup>5</sup> , Ae-Kyoung Lee <sup>6</sup> , Hyung-Do Choi <sup>6</sup> , Mina Ha <sup>7</sup>   |
|   |       |  | Dankook University Preventive Medicine <sup>1</sup> , Ewha Womans University Occupational and Environmental Medicine <sup>2</sup> , Ewha Womans University Preventive Medicine <sup>3</sup> , Ulsan University Occupational and Environmental Medicine <sup>4</sup> , Seoul National University Preventive Medicine <sup>5</sup> , Electronics and Telecommunications Research Institute Radio Technology Research <sup>6</sup> , Ministry of Environment Environmental Health Policy Division <sup>7</sup>   |
|   |       |  | Does RF exposure increase delivery of lead from maternal blood to fetus?  |
|   |       | O11-2  | Mei-Huei Chen <sup>1,2</sup> , Ching-Chun Lin <sup>3</sup> , Meng-Shan Tsai <sup>3</sup> , Pau-Chung Chen <sup>3,4,5</sup>  |
|   |       |  | National Health Research Institutes, Miaoli, Institute of Population Health Sciences, <sup>1</sup> National Taiwan University College of Medicine and Hospital, Taipei, Department of Pediatrics, <sup>2</sup> National Taiwan University College of Public Health, Taipei, Institute of Occupational Medicine and Industrial Hygiene, <sup>3</sup> National Taiwan University College of Medicine and Hospital, Taipei, Department of Environmental and Occupational Medicine, <sup>4</sup> National Taiwan University College of Public Health, Taipei, Department of Public Health, <sup>5</sup>   |
|   |       |  | Ten years progress in the Taiwan Birth Panel Study  |
|   |       | O11-3  | Kyoung-Nam Kim <sup>1,2</sup> , Youn-Hee Lim <sup>3,4</sup> , Choong Ho Shin <sup>5</sup> , Young Ah Lee <sup>6</sup> , Bung-Nyun Kim <sup>6</sup> , Johanna Inhyang Kim <sup>7</sup> , In Gyun Hwang <sup>8</sup> , Myung Sil Hwang <sup>9</sup> , Jin-Hyang Suh <sup>9</sup> , Yun-Chul Hong <sup>2,3,4</sup>   |
|   |       |  | Seoul National University Hospital Division of Public Health and Preventive Medicine <sup>1</sup> , Seoul National University College of Medicine Department of Preventive Medicine <sup>2</sup> , Seoul National University Medical Research Center Institute of Environmental Medicine <sup>3</sup> , Seoul National University College of Medicine Environmental Health Center <sup>4</sup> , Seoul National University College of Medicine Department of Pediatrics <sup>5</sup> , Seoul National University College of Medicine Department of Psychiatry <sup>6</sup> , Seoul National University Bundang Hospital Department of Public Health Medical Services <sup>7</sup> , National Institute of Food and Drug Safety Evaluation Food Safety Risk Assessment Division <sup>8</sup> |
|   |       |  | Cohort Profile: The Environment and Development of Children (EDC) Study: A Prospective Children's Cohort  |
|   |       | O11-4  | Machiko Minatoya <sup>1</sup> , Atsuko Araki <sup>1</sup> , Chihiro Miyashita <sup>1</sup> , Sachiko Itoh <sup>1</sup> , Sumitaka Kobayashi <sup>1</sup> , Keiko Yamazaki <sup>1</sup> , Yu Ait Bamai <sup>1</sup> , Ryu Miura <sup>1</sup> , Naomi Tamura <sup>1</sup> , Reiko Kishi <sup>1</sup>  |
|   |       |  | Center for Environmental and Health Sciences Hokkaido University <sup>1</sup>   |
|   |       |  | Update and the recent findings from the Hokkaido Study  |
| 16:00   | 17:30 | Code 12. Indoor Pollutants at schools and homes (Chair: Kiyoung Lee, Garry Codling)                          |   |
|   |       | Code   | Authors   |
|   |       |  | Affiliation   |
|   |       |  | Abstract title  |
|   |       | O12-1  | Hamid Jan Bin Jan Mohamed <sup>1</sup> , Nur Nadia Binti Mohamed <sup>2</sup> , See Ling Loy <sup>3</sup> , Poh Ying Lim <sup>4</sup> , Abdullah Al Mamun <sup>5</sup>  |
|   |       |  | Universiti Sains Malaysia Nutrition and Dietetics Program <sup>1</sup> , Universiti Sains Malaysia Department of Community Medicine <sup>2</sup> , KK Women's and Children's Hospital Department of Reproductive Medicine <sup>3</sup> , Universiti Putra Malaysia Department of Community Health <sup>4</sup> , The University of Queensland Institute of Social Science Research <sup>5</sup>   |
|   |       |  | Early life secondhand smoke exposure assessed by hair nicotine biomarker may reduce children's communication, fine motor and problem solving skills at 2 years of age   |
|   |       | O12-2  | Pratima Singh <sup>1</sup> , Renu Arora <sup>1</sup>  |
|   |       |  | Institute of Home Economics, University of Delhi Department of Resource Management and Design Application <sup>1</sup>  |
|   |       |  | Assessment of Respirable Suspended Particulate Matter (PM2.5) in Indian Urban Schools   |
|   |       | O12-3  | Enkhjargal Gombojav <sup>7</sup>  |
|   |       |  | School of Public Health, Mongolian National University of Medical Sciences Department of Environmental Health <sup>1</sup> , Simon Fraser University Faculty of Health Sciences <sup>2</sup> , City Health Department Sukhbaatar District Health Center <sup>3</sup> , Ministry of Health, Mongolia Public Health Institute <sup>4</sup> , University of Waterloo Department of Environmental Health <sup>5</sup> , Korea University Department of Environmental Health <sup>6</sup> , New York State Department of Health, Wadsworth Center, <sup>7</sup>  |
|   |       |  | The UGAAR Randomized Controlled Trial of HEPA Filter Air Cleaner Use and Residential Fine Particulate Matter in Ulaanbaatar, Mongolia   |
|   |       | O12-4  | Nuket Sivri <sup>1</sup> , Ahmet Ozgur Dogru <sup>2</sup> , Arzu Funda Bagcigil <sup>3</sup> , Kemal Metiner <sup>1</sup> , Dursun Zafer Seker <sup>2</sup>   |
|   |       |  | Istanbul University Department of Environmental Engineering <sup>1</sup> , ITU, Istanbul Technical University Department of Geomatics Engineering <sup>2</sup> , Istanbul University Department of Microbiology <sup>3</sup>  |
|   |       |  | Assessment of airborne bacterial and fungal concentrations in Primary Schools Utilizing GIS   |
|   |       | O12-5  | Dimosthenis Andreas Sarigiannis <sup>1</sup> , Odysseas Aristeidis Ntompros <sup>1</sup> , Marianthi Vasileios Kermenidou <sup>1</sup> , Spyros Panagiotis Karakitsios <sup>1</sup>   |
|   |       |  | Aristotle University of Thessaloniki Environmental Engineering Laboratory, Department of Chemical Engineering <sup>1</sup>  |
|   |       |  | MONITORING OF INDOOR AIR QUALITY IN ELEMENTARY SCHOOLS IN GREECE  |

| The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Oral Session |       |   |   |  |  |
|---|-------|---|---|--|--|
| Start   | End   | Day3 (6/29)   |   |  |  |
| 8:45  | 10:15 | Code 13. Outdoor air pollution (Chair: Beate Ritz, Ho Kim)  |   |  |  |
|   |       | Code  | Authors   | Affiliation  |  |
|   |       |   |   | Abstract title   |  |
|   |       | O13-1   | Changwoo Han <sup>1</sup> , Youn-Hee Lim <sup>1,2,3</sup> , Kweon Jung <sup>4</sup> , Yun-Chul Hong <sup>1,2,3</sup>  | Seoul National University Department of Preventive Medicine <sup>1</sup> , Seoul National University Medical Research Center Institute of Environmental Medicine <sup>2</sup> , Seoul National University College of Medicine Environmental Health Center <sup>3</sup> , Seoul Metropolitan Institute Public Health and Environment <sup>4</sup>   | Association between ambient air pollution and otitis media in children   |
|   |       | O13-2   | Thomas Astell-Burt <sup>1,2</sup> , Xiaoqi Feng <sup>1,2</sup>  | University of Wollongong Population Wellbeing and Environment Research Lab (PowerLab), Faculty of Social Sciences <sup>1</sup> , University of Sydney Menzies Centre for Health Policy <sup>2</sup>  | More neighborhood green space may protect child respiratory health from heavy traffic volume: a multilevel study of 4447 children in Australia                           |
|   |       | O13-3   | Jonathan Andrieux <sup>1</sup> , Catherine Bouland <sup>1</sup>   | Université Libre de Bruxelles Environmental Health and Occupational Health <sup>1</sup>  | Effects of joint exposures to outdoor air pollution, environmental noise and greenness on children's health: a review of epidemiological studies                         |
|   |       | O13-4   | Hyo-Bin Kim <sup>1</sup> , Boom Kim <sup>2</sup> , Sunju Namgoung <sup>3</sup> , Kangmo Ahn <sup>4</sup> , Kyung Won Kim <sup>5</sup> , Youn Ho Shin <sup>6</sup> , Dong In Suh <sup>7</sup> , Kyung Sook Lee <sup>8</sup> , Yee-Jin Shin <sup>9</sup> , Soo-Jong Hong <sup>10</sup>      | Inje University Sanggye Paik Hospital Pediatrics <sup>1</sup> , University of Ulsan College of Medicine Asan Institute for Life Science <sup>2</sup> , Asan Medical Center Seoul Asan Environmental Health Center for Hazardous Chemical Exposure <sup>3</sup> , Sungkyunkwan University School of Medicine Pediatrics <sup>4</sup> , Yonsei University College of Medicine Pediatrics <sup>5</sup> , CHA University School of Medicine Pediatrics <sup>6</sup> , Seoul National University College of Medicine Pediatrics <sup>7</sup> , Hanshin University Rehabilitation <sup>8</sup> , Yonsei University College of Medicine Psychiatry <sup>9</sup> , University of Ulsan College of Medicine Pediatrics <sup>10</sup>  | During pregnancy and early lifetime exposure to particulate matter and autism spectrum disorder in early childhood: COCOA Study  |
|   |       | O13-5   | Myung-Jae Hwang <sup>1</sup> , Hae-Kwan Cheong <sup>1</sup>   | Sungkyunkwan University School of Medicine, Suwon, Korea Department of Social and Preventive Medicine <sup>1</sup>   | Epidemiologic characterization of sudden infant death syndrome in relation to air pollution in Korea: a case-crossover study   |
| 8:45  | 10:15 | Code 14. Exposome, Epigenetics, Microbiome, and children's health (Chair: Woojin Kim, Denis Sargiannis) |   |  |  |
|   |       | Code  | Authors   | Affiliation  |  |
|   |       |   |   | Abstract title   |  |
|   |       | O14-1   | Yunhui Zhang <sup>1</sup>   | Fudan University Department of Environmental Health <sup>1</sup>   | PBDEs exposure during early life in relation to placental size and fetus development via epigenetic modification   |
|   |       | O14-2   | Woo Jin Kim <sup>1</sup> , Yuri Han <sup>1</sup> , Hyun Sub Cheong <sup>2</sup> , Sung Ok Kwon <sup>3</sup>   | Kangwon National University 1Department of Internal Medicine and Environmental Health Center <sup>1</sup> , SNP Genetics, Inc. Department of Genetic Epidemiology <sup>2</sup> , Biomedical Research Institute Department of Biomedical Research <sup>3</sup>  | Maternal pre-pregnancy body mass index and offspring cord blood DNA methylation  |
|   |       | O14-3   | Oleg Sergejev <sup>1</sup>  | Moscow State University A.N. Belozersky Research Institute of Physico-Chemical Biology <sup>1</sup>  | Peripubertal serum dioxins and subsequent adult semen quality and sperm methylation in the prospective Russian Children's Study  |
|   |       | O14-4   | Nam Goung Sun ju <sup>1</sup> , Lee So-Yeon <sup>2</sup> , Kang Mi-Jin <sup>3</sup> , Kim Hyo-Bin <sup>4</sup> , Yang Song-I <sup>5</sup> , Cho Hyun-ju <sup>6</sup> , Leem Jong-Han <sup>7</sup> , Kim Hwan-Cheol <sup>8</sup> , Kwon Ho-Jang <sup>9</sup> , Hong Soo-Jong <sup>10</sup> | Seoul asan environmental health center Seoul asan environmental health center for hazardous chemical exposure <sup>1</sup> , Childhood Asthma Atopy Center, Environmental Health Center, Asan Medical Center, University of Ulsan College of Medicine Pediatric <sup>2</sup> , Seoul asan environmental health center Seoul asan environmental health center for hazardous chemical exposure <sup>3</sup> , Inje University Sanggye Paik Hospital Pediatrics <sup>4</sup> , Hallym University Sacred Heart Hospital, Hallym University College of Medicine Pediatrics <sup>5</sup> , International St. Mary's hospital, Catholic Kwandong University Pediatrics <sup>6</sup> , College of Medicine, Inha University Social and Preventive Medicine <sup>7</sup> , Inha University School of Medicine Occupational and Environmental Medicine <sup>8</sup> , College of Medicine, Dankook University Preventive Medicine <sup>9</sup> , Childhood Asthma Atopy Center, Environmental Health Center, Asan Medical Center, University of Ulsan College of Medicine Pediatrics <sup>10</sup> | TLR4 (rs1927911) polymorphism modifies the association between exposure to Nitrogen Dioxide (NO2) during pregnancy and symptoms of allergic rhinitis in Korean children. |
|   |       | O14-5   | Carmen M Velez-Vega <sup>1</sup> , Zaira Rosario-Pabon <sup>2</sup> , Jose F Cordero <sup>2</sup> , Gredia Huerta <sup>1</sup> , April Gu <sup>3</sup> , John Meeker <sup>4</sup> , Helen Suh <sup>5</sup> , Akram Alshwabkeh <sup>3</sup>  | University of Puerto Rico Medical Sciences Campus School of Public Health <sup>1</sup> , University of Georgia Department of Epidemiology <sup>2</sup> , Northeastern University Department of Civil and Environmental Engineering <sup>3</sup> , University of Michigan School of Public Health <sup>4</sup> , Tufts University Environmental Science <sup>5</sup>  | The Center for Research on Early Childhood Exposure and Development (CRECE)  |

## The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Symposium Session

| Start End   |       | Day1 (6/27)  |   |   |
|-------------|-------|--|---|---|
| 14:15 15:45 |       | Symposium 1. Internet gaming addiction (Chair: Hyeon Woo Yim, Hae Kook Lee)  |   |   |
|             | Code  | Authors  | Affiliation   | Abstract title  |
|             | S01-1 | Hyunsuk Jeong <sup>1</sup> ,<br>Hyeon Woo Yim <sup>1</sup>   | Catholic University of Korea Preventive Medicine <sup>1</sup>   | Prevalence of clinically diagnosed Internet gaming disorder and gaming behavior patterns in adolescents using cluster analysis: Baseline results from iCURE |
|             | S01-2 | Seung-Yup Lee <sup>1</sup> ,<br>Hae Kook Lee <sup>1</sup> ,<br>Hyeon Woo Yim <sup>2</sup> ,<br>Hyunsuk Jeong <sup>2</sup> ,<br>Soo-young Bang <sup>3</sup> ,<br>Jung-Seok Choi <sup>4</sup> ,<br>Yong-Sil Kweon <sup>4</sup>                                   | Uijeongbu St. Mary's Hospital, College of Medicine, The Catholic University of Korea Department of Psychiatry <sup>1</sup> , College of Medicine, The Catholic University of Korea Department of Preventive medicine <sup>2</sup> , College of Medicine, Eulji University Department of Psychiatry <sup>3</sup> , SMG-SNU Boramae Medical Center Department of Psychiatry <sup>4</sup>  | Playing time & Addiction: How much gaming is too long?  |
|             | S01-3 | Hyekyung Choo <sup>1</sup> ,<br>Daniel Fung <sup>2</sup>   | University of Singapore, Singapore University of Singapore, Singapore <sup>1</sup> , Institute of Mental Health, Singapore Institute of Mental Health, Singapore <sup>2</sup>   | Comorbidity and Social Vulnerability of Children and Adolescents with Internet Gaming Disorder (IGD)  |
| 16:00 17:30 |       | Symposium 2. Endocrine Disrupting Chemicals (Chair: Else Toft Würtz, Joan O Grimalt)   |   |   |
|             | Code  | Authors  | Affiliation   | Abstract title  |
|             | S02-1 | Youn-Hee Lim <sup>1</sup> ,<br>Young Ah Lee <sup>2</sup> ,<br>Choong Ho Shin <sup>2</sup> ,<br>Dongwook Lee <sup>3</sup> ,<br>Bung-Nyun Kim <sup>4</sup> ,<br>Johanna Inhyang Kim <sup>4</sup> , Yun-Chul Hong <sup>1,3</sup>                                  | Seoul National University College of Medicine Environmental Health Center <sup>1</sup> , Seoul National University Children's Hospital Department of Pediatrics <sup>2</sup> , Seoul National University College of Medicine Department of Preventive Medicine <sup>3</sup> , Seoul National University Hospital Division of Children and Adolescent Psychiatry <sup>4</sup>  | Impact of bisphenol A exposure on adiposity trajectory in early childhood: a prospective cohort study   |
|             | S02-2 | Hsiao Yu Chun <sup>1</sup> ,<br>Wang Shu Li <sup>2</sup> ,<br>Hsieh Chia Jung <sup>3</sup> ,<br>Wu Ming Tsang <sup>4</sup> ,<br>Chen Mei Lien <sup>1</sup>   | National Yang-Ming University, College of Medicine, Institute of Environmental and Occupational Health Sciences <sup>1</sup> , National Health Research Institutes, National Institute of Environmental Health Sciences <sup>2</sup> , Buddhist Tzu Chi University, Department of Public Health <sup>3</sup> , Kaohsiung Medical University, College of Health Science, Department of Public Health <sup>4</sup>  | The association of prenatal nonylphenol exposure and child health in Taiwan pregnant women nationwide   |
|             | S02-3 | Joan O Grimalt <sup>1</sup> ,<br>Merce Garí <sup>1</sup> , Esther Marco <sup>1</sup> , Barend L van Drooge <sup>1</sup>  | Institute of Environmental Assessment and Water Research (IDAEA-CSIC) Environmental Chemistry <sup>1</sup>  | Associations between fetal exposure to chemical pollutants and development disorders in the early childhood. Case studies from European cohorts             |
|             | S02-4 | Kinga Polanska <sup>1</sup> ,<br>Mercè Garí <sup>2</sup> ,<br>Wojciech Hanke <sup>1</sup> ,<br>Holger M Koch <sup>3</sup> ,<br>Claudia Claudia Pä Imke <sup>3</sup> ,<br>Stephan Bose-O'Reilly <sup>2</sup>  | Nofer Institute of Occupational Medicine, Department of Environmental Epidemiology <sup>1</sup> , University Hospital Munich, Institute for Occupational, Social and Environmental Medicine <sup>2</sup> , Institute of the Ruhr-Universität Bochum, Institute for Prevention and Occupational Medicine of the German Social Accident Insurance <sup>3</sup>  | Concentrations of phthalate metabolites in children from Poland   |
|             | S02-5 | Young Ah Lee <sup>1</sup> , Jin Hee Kim <sup>2</sup> , Hae Woon Jung <sup>3</sup> , Youn-Hee Lim <sup>4</sup> , Sanghyuk Bae <sup>5</sup> , Younglim Kho <sup>6</sup> , Yun-Chul Hong <sup>4,7</sup> , Sei Won Yang <sup>1</sup> , Choong Ho Shin <sup>1</sup> | Seoul National University Children's Hospital Department of Pediatrics, <sup>1</sup> Sejong University Department of Integrative Bioscience & Biotechnology, <sup>2</sup> Kyunghee University Kyunghee Medical Center Department of Pediatrics <sup>3</sup> , Seoul National University College of Medicine Environmental Health Center <sup>4</sup> , College of Medicine, Dankook University Department of Preventive Medicine <sup>5</sup> , Eulji University Department of Health, Environment & Safety, <sup>6</sup> Seoul National University College of Medicine Department of Preventive Medicine, <sup>7</sup> | The serum concentrations of perfluoroalkyl compounds were inversely associated with growth parameters in 2-year old children                                |

| The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Symposium Session |       |  |  |   |  |
|--|-------|--|--|---|--|
| Start  | End   | Day2 (6/28)  |  |   |  |
| 14:15  | 15:45 | Symposium 3. Allergic diseases (Chair, Kangmo Ahn)                                   |  |   |  |
|  |       | Code   | Authors  | Affiliation   |  |
|  |       |  |  | Abstract title  |  |
|  |       | S03-1  | Kangmo Ahn <sup>1,2</sup>  | Samsung Medical Center, Sungkyunkwan University School of Medicine Pediatrics <sup>1</sup> , Samsung Medical Center Environmental Health Center for Atopic Diseases <sup>2</sup>  | Airborne formaldehyde exacerbates atopic dermatitis in children  |
|  |       | S03-2  | JaHyeong Kim <sup>1</sup>  | Ulsan University Hospital, University of Ulsan College of Medicine Department of Pediatrics <sup>1</sup>  | Early- life exposure to heavy metals and development of allergic diseases  |
|  |       | S03-3  | Young Yoo <sup>1,2</sup>   | Department of Pediatrics <sup>1</sup> , Environmental Health Center, Korea University Anam Hospital <sup>2</sup>  | Indoor air quality and allergic diseases in children   |
|  |       | S03-4  | Dae Hyun Lim <sup>1</sup>  | School of Medicine, Inha University, Incheon Pediatrics <sup>1</sup>  | The effect of PM10/2.5 exposure on asthma-related hospital visits in Korea based on the National Health Insurance Data |
|  |       | S03-5  | LEE, Keun Hwa  | Department of Microbiology and Immunology, Jeju National University College of Medicine, Jeju; Environmental Health Center, Jeju National University College of Medicine, Jeju, Korea   | Japanese Cedar ( <i>Cryptomeria japonica</i> ) Pollinosis in Jeju, Korea   |
| 16:00  | 17:30 | Symposium 4. Heavy metal and children's health (Chair, Yangho Kim, Jerome A Paulson) |  |   |  |
|  |       | Code   | Authors  | Affiliation   |  |
|  |       |  |  | Abstract title  |  |
|  |       | S04-2  | Yangho Kim <sup>1</sup>  | Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan, Republic of Korea Department of Occupational and Environmental Medicine <sup>1</sup>   | Behavior of blood heavy metal concentrations in pregnant Korean women and children                                     |
|  |       | S04-3  | Young-Seoub Hong <sup>1,2</sup> , Jung-Wook Seo <sup>1</sup> , Sang-Hun Nam <sup>3</sup> , Dae-Seon Kim <sup>3</sup> , Enkhjargal Altangere <sup>4</sup>   | Dong-A University, Busan, Heavy Metal Exposure Environmental Health Center <sup>1</sup> , College of Medicine, Dong-A University, Busan Department of Preventive Medicine <sup>2</sup> , National Institute of Environmental Research <sup>3</sup> , Ministry of Health, Ulaanbaatar <sup>4</sup>   | Environmental Health Survey for Children around Mining Areas in Mongolia   |
|  |       | S04-4  | Woo-Seok Lee <sup>1</sup> , Youn-Hee Lim <sup>2</sup> , Yun-Chul Hong <sup>1,2,3</sup>   | Seoul National University College of Medicine Department of Preventive Medicine <sup>1</sup> , Seoul National University Medical Research Center Institute of Environmental Medicine <sup>2</sup> , Seoul National University College of Medicine Environmental Health Center <sup>3</sup>  | Growth parameters in 6-year old children exposed to Manganese from fruit consumption                                   |
|  |       | S04-5  | Jin Hee Kim <sup>1</sup> , Yelim Park <sup>2</sup> , Sung Koo Kim <sup>3</sup> , Hyo-Bang Moon <sup>4</sup> , Jeongim Park <sup>2</sup> , Kyungho Choi <sup>5</sup> , Sungkyoon Kim <sup>5,6</sup> | Sejong University Department of Integrative Bioscience & Biotechnology <sup>1</sup> , Soonchunhyang University Department of Environmental health Sciences <sup>2</sup> , Hallym University College of Medicine <sup>3</sup> , Hanyang University Department of Marine Sciences and Convergent Technology <sup>4</sup> , Seoul National University Department of Environmental Health <sup>5</sup> , Seoul National University Institute of Health and Environment <sup>6</sup> | Lead and mercury levels in repeatedly collected urine samples of young children: A longitudinal biomonitoring study    |

| The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Symposium Session |       |   |  |   |
|--|-------|---|--|---|
| Start  | End   | Day3 (6/29)   |  |   |
| 8:45   | 10:15 | Symposium 5. Children's mental health (Chair, Bung-Nyun Kim, Peter van den Hazel)   |  |   |
|  | Code  | Authors   | Affiliation  | Abstract title  |
|  | S05-1 | Yoko Kamio <sup>1</sup> ,<br>Jeongrim Lee <sup>2</sup> ,<br>Bung-Nyun Kim <sup>3</sup> ,<br>Yeni Kim <sup>4</sup>   | National Center of Neurology and Psychiatry Child Psychiatry <sup>1</sup> ,<br>Korea Institute of Child Care and Education Integration of ECEC<br>Research Team <sup>2</sup> , Seoul National University Child and Adolescent<br>Psychiatry <sup>3</sup> , National Center for Mental Health Child and<br>Adolescent Psychiatry <sup>4</sup>   | Environment and Development of<br>Cognition and Behavior in Korean and<br>Japanese Children.  |
|  | S05-2 | Jung Lee <sup>1</sup> , Johanna<br>Inhyang Kim <sup>2</sup> , Yun-<br>Chul Hong <sup>3</sup> , Choong<br>Ho Shin <sup>4</sup> , Young Ah<br>Lee <sup>4</sup> , Youn-Hee<br>Lim <sup>3</sup> , Bung-Nyun<br>Kim <sup>1</sup> | Seoul National University College of Medicine Division of Child and<br>Adolescent Psychiatry, Department of Psychiatry <sup>1</sup> , Seoul National<br>University Bundang Hospital, Republic of Korea Department of<br>Public Health Medical Services <sup>2</sup> , Seoul National University Medical<br>Research Center Institute of Environmental Medicine <sup>3</sup> , Seoul<br>National University College of Medicine Department of Pediatrics <sup>4</sup> | Influence of age at exposure and sex on<br>the relationship between phthalate<br>exposure and intelligence: a prospective<br>birth cohort study |
|  | S05-3 | Yeni Kim <sup>1</sup> , Sung-Mi<br>Lee <sup>1</sup>   | National Center for Mental Health Child and Adolescent Psychiatry <sup>1</sup>   | Neurodevelopmental effect of di-butyl-<br>phthalate exposure during gestation and<br>lactation in C57BL/6 mice.                                 |
|  | S05-4 | Jeong Rim Lee <sup>1</sup> ,<br>Gilsook Kim <sup>1</sup> , YeJin<br>Yi <sup>1</sup> , Shinyeong<br>Song <sup>1</sup> , Jinmi Kim <sup>1</sup>   | Korea Institute of Child Care and Education Integration of ECEC<br>Research <sup>1</sup>   | Classifying Korean Children's Behavioral<br>Problems and Their Influencing Factors: A<br>Latent Profile Analysis.                               |
|  | S05-5 | Boram Lee <sup>1</sup> , Hye<br>Jun Park <sup>1</sup>   | Seoul National University Child development and Family studies <sup>1</sup>  | Environment and Developmental Health of<br>Children in Malawi, Africa   |
|  | S05-6 | Yoko Kamio <sup>1</sup>   | National Center for Neurology and Psychiatry Child Psychiatry <sup>1</sup>   | Early ASD symptoms can predict later<br>anxiety symptoms in children  |



The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Poster presentation

| Start  | End  | Day1 (6/27)  |   |  |
|--------|--|--|---|--|
| 9:00   | 17:00  | Poster 1. Environmental hazards  |   |  |
| Code   | Authors  | Affiliation  | Abstract title  |  |
| P01-1  | Buyantushig Boldbaatar <sup>1</sup> , Enkhjargal Gombojav <sup>1</sup>   | Mongolian National University of Medical Sciences Environmental Health <sup>1</sup>  | FINE (PM2.5) PARTICULATE POLLUTION IN MONGOLIAN   |  |
| P01-2  | Catherine Bouland <sup>1</sup> , Marija Jevtic <sup>1,2,3</sup> , Peter Van Den Hazel <sup>4</sup>   | Université Libre de Bruxelles (ULB), Research centre on Environmental and Occupational Health, ESP <sup>1</sup> , University of Novi Sad, Faculty of Medicine Department of Hygiene <sup>2</sup> , Institute of Public Health of Vojvodina Department of School Health, Health Promotion Center <sup>3</sup> , Public Health Services Gelderland-Midden, Arnhem Section environment related diseases section <sup>4</sup>  | SDGs as guidelines for improving children's health  |  |
| P01-3  | Chia-Jung Hsieh <sup>1</sup> , Lih-Ming Yiin <sup>1</sup> , Yu-Hsun Chang <sup>2</sup>   | Tzu Chi University Department of Public Health <sup>1</sup> , General Tzu Chi Hospital Department of Pediatrics <sup>2</sup>   | Effects of pesticide exposure during pregnancy on birth outcomes  |  |
| P01-4  | Choonghee Park <sup>1</sup> , Dayoung Chung <sup>1</sup> , Sieun You <sup>1</sup> , Hyeji Han <sup>1</sup> , Youngmee Lee <sup>1</sup>   | National Institute of Environmental Research Environmental Health Research Division <sup>1</sup>   | Risk Assessment and Management of Environmentally Harmful Factors for Use by Children in Korea  |  |
| P01-5  | Dawoon Jung <sup>1</sup> , Sijin Kim <sup>1</sup> , Hyesoo Shin <sup>1</sup>   | Korea Environment Institute Department of Living Environment Research <sup>1</sup>   | Status and Improvement Measures for Children's Product Management in Korea  |  |
| P01-6  | Denis Andreas Sarigiannis <sup>1</sup> , Marianthi Vasileios Kermenidou <sup>1</sup> , Spyros Panagiotis Karakitsios <sup>1</sup>  | Aristotle University of Thessaloniki, Environmental Engineering Laboratory, Department of Chemical Engineering, <sup>1</sup>   | THE ABILITY OF AMBIENT AIR PMX TO GENERATE REACTIVE OXYGEN SPECIES: LINK TO SOURCES   |  |
| P01-7  | Elizabeth Cherian Paramesh <sup>1</sup> , Roshan Cherian Paramesh <sup>2</sup> , Rashmi Cherian Paramesh <sup>3</sup>  | Lakeside Center for Health Promotion Public Health <sup>1</sup> , Lakeside Center for Health Promotion Dentallium <sup>2</sup> , Lakeside Center for Health Promotion Department of Pediatrics <sup>3</sup>  | Prevalence of Nutritional allergies in school going children in Bangalore   |  |
| P01-8  | Henry Wabinga <sup>1</sup> , Derrick Bary Abila <sup>1</sup>   | Makerere University Biomedical Sciences <sup>1</sup>   | Contrast between incidence of childhood and adolescent cancers: Using a population based cancer registry, Kyadondo County, Uganda: 2009 to 2014 |  |
| P01-9  | Igor Hadjamberdiev <sup>1</sup> , Indira Kazieva <sup>1</sup>  | Medical institute named S.Tentishev Scientific Dptm <sup>1</sup>   | Child poisoning by Lead and Mercury in Kyrgyzstan   |  |
| P01-10 | Igor Hadjamberdiev <sup>1</sup> , Indira Zhakipova <sup>2</sup> , Viktoria Didenko <sup>3</sup>  | Asian medical institute named S.Tentishev Scientific Dptm <sup>1</sup> , Ekois, NGO Information Dptm <sup>2</sup> , Asian medical institute named S.Tentishev Scientific Dptm <sup>3</sup>   | Obsolete pesticides and child health in Central Asia  |  |
| P01-11 | Igor Hadjamberdiev <sup>1</sup> , Rustam Tukhvatshin <sup>2</sup>  | Medical institute named S.Tentishev Scientific Dptm <sup>1</sup> , Kyrgyz State Medical Academy Scientific Dptm <sup>2</sup>   | Radioactive area and child health in Tien-Shen  |  |
| P01-12 | Jaeon Lee <sup>1</sup> , Wookhee Choi <sup>1</sup> , Sanghoon Nam <sup>1</sup> , Dohyun Kim <sup>1</sup> , Kongkea Phan <sup>2</sup> , Enkhjargal Altangerel <sup>3</sup> , Daeseon Kim <sup>1</sup> , Chulwoo Lee <sup>1</sup> , Seungdo Yu <sup>1</sup>  | National Institute of Environmental Research Environment Health Research Division <sup>1</sup> , International University Faculty of Science and Technology <sup>2</sup> , National Center for Environmental Health Department for Environmental Health <sup>3</sup>   | Environmental Exposure Assessment in Vulnerable residential area in Asia-Pacific countries  |  |
| P01-13 | Jargalsaikhan Galsuren <sup>1</sup> , Cho Hyunsoon <sup>2</sup> , Enkhjargal Gombojav <sup>2</sup>   | Mongolian National University of Medical Sciences School of Public Health <sup>1</sup> , National Cancer Center of Korea Graduate School of Cancer Science and Policy <sup>2</sup>   | Analysis of ambient air quality using fixed-site monitoring data in Mongolia  |  |
| P01-14 | Jayeun Kim <sup>1</sup> , Ho Kim <sup>2</sup>  | Seoul National University Institute of Health and Environment <sup>1</sup> , Seoul National University Graduate School of Public Health <sup>2</sup>   | Modifications of ambient temperature and synoptic meteorology for respiratory hospitalization among childhood in Seoul, Korea                   |  |
| P01-15 | Jeonghoon Kim <sup>1,2</sup> , Jin-Ha Yoon <sup>3</sup> , Jihyun Kim <sup>3</sup> , Wanhyung Lee <sup>3</sup> , Yeong-Kwang Kim <sup>3</sup> , Seunghyun Lee <sup>4</sup> , KyooSang Kim <sup>1</sup>  | Seoul Medical Center Department of Environmental Health Research <sup>1</sup> , Seoul National University Department of Environmental Health Sciences, Graduate School of Public Health <sup>2</sup> , Yonsei University College of Medicine Graduate School of Public Health <sup>3</sup> , University of Occupational and Environmental Health The Department of Internal Medicine, School of Medicine <sup>4</sup>  | Predictors of thirdhand smoke beliefs on children health among adults in Korea  |  |
| P01-16 | Jessica W. An <sup>1</sup> , Luisa N. Borrell <sup>2</sup> , Celeste Eng <sup>3</sup> , Adam Davis <sup>4</sup> , Kelley Meade <sup>4</sup> , Michael A. LeNoir <sup>5</sup> , Emirita Brigino-Buenaventura <sup>6</sup> , S.Katharine Hammond <sup>1</sup> , Esteban G. Burchard <sup>3</sup> , Neeta Thakur <sup>3</sup> | University of California, Berkeley, School of Public Health Division of Environmental Health Sciences <sup>1</sup> , City University of New York, Graduate School of Public Health and Health Policy Department of Epidemiology & Biostatistics <sup>2</sup> , University of California, San Francisco, Department of Medicine Division of Pulmonary and Critical Care Medicine <sup>3</sup> , UCSF Benioff Children's Hospital Oakland Children's Hospital Oakland Research Institute <sup>4</sup> , Bay Area Pediatrics <sup>5</sup> , Kaiser Permanente, Vallejo Medical Center Department of Allergy and Immunology <sup>6</sup> | The Effect of Neighborhood Deprivation on Asthma Exacerbation in African American Youth   |  |

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|        |   |  |   |
|--------|---|--|---|
| P01-17 | Jongmin Oh <sup>1</sup> , Myeongjee Lee <sup>1</sup> ,<br>Seulbi Lee <sup>2</sup> , Shinhee Ye <sup>1</sup> , Yu Min<br>Lee <sup>1</sup> , Eun-Hee Ha <sup>1</sup>  | College of Medicine, Ewha Womans University Department of<br>Occupational and Environmental Medicine <sup>1</sup> , College of Medicine,<br>Ewha Womans University Department of Medical Sciences <sup>2</sup>   | Exploratory study to determine the<br>cotinine cut-off value to discriminate<br>between second-hand smoke (SHS) and<br>smokers during pregnancy   |
| P01-18 | Josephine J Singo <sup>1</sup>  | University of London International Programs London School of<br>Hygiene and Tropical Medicine <sup>1</sup>   | Occupational risk perceptions and<br>behavior towards health risk exposures,<br>personal protective equipment and health-<br>seeking among Artisanal and Small-scale<br>Gold Miners in Bornuur Soum, Mongolia |
| P01-19 | Kyung-Hwa Choi <sup>1</sup> , Myung-Sook<br>Park <sup>1</sup> , Seung-Hwa Lee <sup>1</sup> , Mina<br>Ha <sup>2</sup> , Hae-Kwan Cheong <sup>3</sup> , Jong-Il<br>Hur <sup>1</sup>   | Taeon Environmental Health Center, Department of<br>Environmental Health <sup>1</sup> , Dankook University College of Medicine,<br>Department of Preventive Medicine <sup>2</sup> , Sungkyunkwan University<br>School of Medicine, Department of Social and Preventive   | Prevalence of selected diseases in<br>children and adolescents of Hebei Spirit<br>oil spill area, 2002-2015: Using the<br>National Health Insurance data  |
| P01-20 | Miyoung Lim <sup>1</sup> , Ji Young Park <sup>2</sup> ,<br>Seungryul Park <sup>3</sup> , Wonho Yang <sup>4</sup> ,<br>Kyunghye Ji <sup>5</sup> , Myung Hee Moon <sup>6</sup> ,<br>Hunjo Lee <sup>7</sup> , Kiyoung Lee <sup>1,2</sup> | Seoul National University Graduate School of Public Health <sup>1</sup> ,<br>Seoul National University Institute of Health and Environment <sup>2</sup> ,<br>World Research Inc. CEO <sup>3</sup> , Catholic University of Daegu<br>Department of Occupational Health <sup>4</sup> , Yonin University<br>Department of Environmental Health <sup>5</sup> , Ecomom Korea<br>Headquarter Director <sup>6</sup> , Chem.I.net Co., Ltd. CEO <sup>7</sup>   | Strategy for obtaining national exposure<br>factors of children's goods in Korea: The<br>CREAM study  |
| P01-21 | Myeongjee Lee <sup>1</sup> , Seulbi Lee <sup>2</sup> ,<br>Mina Ha <sup>3</sup> , Yun-Chul Hong <sup>4</sup> ,<br>Hyesook Park <sup>5</sup> , Yangho Kim <sup>6</sup> ,<br>Eunhee Ha <sup>1,7</sup>                                    | Ewha Womans University Department of Occupational and<br>Environmental Medicine <sup>1</sup> , Ewha Womans University Department<br>of Medical Science <sup>2</sup> , Dankook University Department of<br>Preventive Medicine <sup>3</sup> , Seoul National University Institute of<br>Environmental Medicine <sup>4</sup> , Ewha Womans University Department<br>of Preventive Medicine <sup>5</sup> , University of Ulsan College of Medicine<br>Department of Occupational and Environmental Medicine <sup>6</sup> , Ewha<br>Womans University Ewha Medical Research Institute <sup>7</sup> | Combined effect of prenatal exposure to<br>air pollution and secondhand smoke on<br>early neurodevelopment  |
| P01-22 | Myung-Sook Park <sup>1</sup> , Mina Ha <sup>2</sup> ,<br>Kyung-Hwa Choi <sup>1</sup> , Seung-Hwa<br>Lee <sup>1</sup> , Hae-Kwan Cheong <sup>3</sup> , Jong-<br>Il Hur <sup>1</sup>  | Taeon Environmental Health Center, Department of<br>Environmental Health <sup>1</sup> , Dankook University College of Medicine,<br>Department of Preventive Medicine <sup>2</sup> , Sungkyunkwan University<br>School of Medicine, Department of Social and Preventive   | A Longitudinal Study of Children's Lung<br>Function exposure to Volatile Organic<br>Compounds for 10 years after the Hebei<br>Spirit Oil Spill  |
| P01-23 | Phoebe Um <sup>1</sup> , Jianghong Liu <sup>2</sup> ,<br>Naixue Cui <sup>3</sup> , Adrian Raine <sup>4</sup>  | University of Pennsylvania Department of Biological Basis of<br>Behavior <sup>1</sup> , University of Pennsylvania School of Nursing <sup>2</sup> ,<br>Shandong University School of Nursing <sup>3</sup> , University of<br>Pennsylvania Department of Criminology <sup>4</sup>   | Lead exposure even at low levels is linked<br>with increased slow-brainwave activity<br>(EEG)   |
| P01-24 | Seung Woon Sohn <sup>1</sup> , Dong Soo<br>Lee <sup>1</sup>   | Graduate School of Environmental Studies, Seoul National<br>University. Department of Environmental planning and<br>Environmental planning institute <sup>1</sup>  | VOCs Exposure and Risk assesmenst on<br>diaper medium For Infants and children in<br>Korea  |
| P01-25 | SHANKARGOUDA V PATIL <sup>1</sup> ,<br>BHAVANA B LAKHKAR <sup>2</sup>   | SHRI B M PATIL MEDICAL COLLEGE, VIJAYAPUR<br>PEDIATRICS <sup>1</sup> , SHRI B M PATIL MEDICAL COLLEGE,<br>VIJAYAPUR PEDIATRICS <sup>2</sup>  | ENVIRONMENTAL HEALTH HAZARDS<br>IN CHILDREN IN AND AROUND<br>VIJAYAPUR  |
| P01-26 | Sherly Dwi Agustiningrum <sup>1</sup>   | Airlangga University Environmental Health <sup>1</sup>   | Excessive Food Additives in Food Snacks<br>of School Children in Mulyorejo Surabaya   |
| P01-27 | Shinhee Ye <sup>1</sup> , Jiyoung Shin <sup>1</sup> ,<br>Jueun Lee <sup>1</sup> , Eun Mi Jung <sup>1</sup> , Eun-<br>Hee Ha <sup>1</sup>  | Ewha Womans University College of Medicine Department of<br>Occupational and Environmental Medicine <sup>1</sup>   | Systematic Review of Heavy Metal<br>Concentrations in Fish and Shellfish in<br>Korea  |
| P01-28 | SONG JUNG-KOOK <sup>1</sup> , Lee Keun-<br>Hwa <sup>1</sup> , Lee Hye-Sook <sup>1</sup> , Hong<br>Sung-Chul <sup>1</sup>  | School of Medicine, Jeju National University Preventive Medicine <sup>1</sup>  | Aeroallergen Sensitization Rate of the<br>Children in Jeju in 2017  |
| P01-29 | Sooyoung Guak <sup>1</sup> , Kiyoung Lee <sup>1,2</sup> ,<br>Miyoung Lim <sup>1</sup> , Ji Young Park <sup>2</sup>  | Graduate School of Public Health, Seoul National University<br>Department of Environmental Health Sciences <sup>1</sup> , Seoul National<br>University Institute of Health and Environment <sup>2</sup>  | Skin adhesion rate of children's modeling<br>clay for exposure assessment   |
| P01-30 | Vinod Hanumant Ratageri <sup>1</sup> ,<br>Laxmi Kamat <sup>2</sup>  | Karnataka Institute of Medical Sciences,Hubli Pediatrics <sup>1</sup> ,<br>Karnataka Institute of Medical Sciences,Hubli Pediatrics <sup>2</sup>   | UNINTENTIONAL (NON<br>FATAL)INJURIES IN CHILDREN :<br>EXPERIENCE AT A TERTIARY CARE<br>HOSPITAL FROM NORTH  |
| P01-31 | Ying Guo <sup>1,2</sup> , Jason G Su <sup>2</sup> , Ya<br>Dong <sup>1</sup> , Jennifer Wolch <sup>3</sup>   | Tianjin University School of Architecture <sup>1</sup> , University of California<br>at Berkeley School of Public Health <sup>2</sup> , University of California at<br>Berkeley College of Environmental Design <sup>3</sup>   | Application of land use regression<br>techniques for urban greening: An<br>analysis of Tianjin, China   |
| P01-32 | Yoonjee Kim <sup>1</sup> , Sewon Lee <sup>1</sup> ,<br>Hyunkyung Ban <sup>1</sup> , Sangmin Cha <sup>2</sup> ,<br>Geunbae Kim <sup>3</sup> , Kiyoung Lee <sup>1</sup>   | Seoul National University Graduate School of Public Health <sup>1</sup> ,<br>Kweather Environmental Business Division <sup>2</sup> , National Institute of<br>Environmental Research Environmental Health <sup>3</sup>   | Temporal variation of indoor air quality in<br>daycare centers  |
| P01-33 | Yumin Lee <sup>1</sup> , Eunhee ha <sup>1</sup> , Jin<br>Hwa Lee <sup>2</sup> , Hawn-Cheol Kim <sup>3</sup> ,<br>Kyoung-Nam Kim <sup>4</sup>  | Ewha Womans University College of Medicine Occupational and<br>Environmental Medicine <sup>1</sup> , Ewha Womans University College of<br>Medicine Internal Medicine, College of Medicine <sup>2</sup> , Inha University<br>School of Medicine Occupational & Environmental Medicine <sup>3</sup> ,<br>Seoul National University College of Medicine Preventive<br>Medicine <sup>4</sup>   | Prediction of COPD mortality due to<br>exposure to fine particulate matter using<br>machine learning technique: The National<br>Health Insurance Service-National<br>Sample Cohort (NHIS-NSC)                 |
| P01-34 | Oyunchimeg Myagmardorj <sup>1</sup> ,<br>Burmaajav Badrakh <sup>2</sup>   | National Center for Public Health <sup>1</sup> , Mongolian Academy of<br>Medical Sciences <sup>2</sup>   | The influence of soil contamination in ger<br>districts of Ulaanbaatar<br>on 0-5 year old children's diarrheal<br>infections  |
| P01-35 | Eun-Hee Ha <sup>1</sup> , Jongmin Oh <sup>1</sup> ,<br>Youngrin Kwag <sup>1</sup> , Min-ho Kim <sup>1</sup> ,<br>Shinhee Ye <sup>1</sup>  | Ewha Womans University Occupational and Environmental<br>Medicine <sup>1</sup>   | The relationship between Land Use Rate<br>and Low Birth Weight Rate in Seoul :<br>Ecological study  |

## The 9th INTERNATIONAL CONFERENCE ON CHILDREN'S HEALTH AND THE ENVIRONMENT (INCHES) - Poster presentation

| Start  | End   | Day2 (6/28)  |  |  |
|--------|---|--|--|--|
| 9:00   | 17:00   | Poster 2. Birth cohort   |  |  |
| Code   | Authors   | Affiliation  | Abstract title   |  |
| P02-1  | Byungmi Kim <sup>1</sup> , Eun Kyo Park <sup>2</sup> , Eun Young Park <sup>1</sup> , Bohye Shin <sup>1</sup>  | National Cancer Center National Cancer Control Institute <sup>1</sup> , Ewha Medical Research Center Department of Preventive Medicine <sup>2</sup>  | Influence of environmental factors and prenatal Triclosan on birth outcomes : the Mother And Kids Environmental health Study   |  |
| P02-2  | Denis Sarigiannis <sup>1,2,3</sup> , Nafsika Papaioannou <sup>2</sup> , Aikaterini Galonaki <sup>2</sup> , Maria Fafouti <sup>2</sup> , Kinga Polanska <sup>4</sup> , Michael Dickinson <sup>5</sup> , Catherina Gabriel <sup>2</sup> , Spyros Karakitsios <sup>1,2,3</sup>   | Aristotle University of Thessaloniki HERACLES Research Unit on Health and the Exposome, Centre for Interdisciplinary Research and Innovation <sup>1</sup> , Aristotle University of Thessaloniki Department of Chemical Engineering, Environmental Engineering Laboratory <sup>2</sup> , Institute of Advanced Study Environmental Health Engineering <sup>3</sup> , Nofer Institute of Occupational Medicine Children' s Environmental Health <sup>4</sup> , Fera Science Ltd Food and Environment Research Agency <sup>5</sup>                             | Effects of heavy metals to neurodevelopment in a mother-infant cohort study  |  |
| P02-3  | Eun Mi Jung <sup>1</sup> , Yun-Chul Hong <sup>2</sup> , Mina Ha <sup>3</sup> , Yangho Kim <sup>4</sup> , Hyesook Park <sup>5</sup> , Hyesook Kim <sup>6</sup> , Eun-Hee Ha <sup>1</sup>   | Ewha Womans University Department of Occupational and Environmental Medicine <sup>1</sup> , Seoul National University Department of Preventive Medicine <sup>2</sup> , Dankook University College of Medicine Department of Preventive Medicine <sup>3</sup> , Ulsan University Hospital Department of Occupational and Environmental Medicine <sup>4</sup> , Ewha Womans University Department of Preventive Medicine <sup>5</sup> , Ewha Womans University Department of Nutritional Science and Food Management <sup>6</sup>                              | Association between dietary patterns and blood mercury concentration: MOCEH study  |  |
| P02-4  | Eunjung Kim <sup>1</sup> , Yeni Kim <sup>2</sup> , Jeesuk Yu <sup>3</sup> , Hojang Kwon <sup>1,4</sup> , Suejin Kim <sup>5</sup> , Mina Ha <sup>1,4</sup>   | Dankook University Medical Center Environmental Health Center <sup>1</sup> , National Center for Mental Health Department of Child and Adolescent Psychiatry <sup>2</sup> , Dankook University College of Medicine Department of Pediatrics <sup>3</sup> , Dankook University College of Medicine Department of Preventive Medicine <sup>4</sup> , National Institute of Environmental Research Environmental Health Research Department <sup>5</sup>  | Phthalate exposure, pubertal development and problem behavior in children  |  |
| P02-5  | Hye-Li Jeon <sup>1</sup> , Sung Yeon Kim <sup>1</sup> , Ji-Young Yoo <sup>1</sup> , Young Min Kwon <sup>1</sup> , Sun Kyoung Jung <sup>1</sup> , Young Kyoung Joo <sup>1</sup> , Chul-Woo Lee <sup>1</sup> , Seung-Do Yu <sup>1</sup>   | National Institute of Environmental Research Environmental Health Research Division, Environmental Health Research Department <sup>1</sup>   | Main progress of the 3rd stage Korean National Environmental Health Survey ('15-'17) - focused on Children and Adolescents   |  |
| P02-6  | Ja Hyeong Kim <sup>1</sup> , Eun-Hee Ha <sup>2</sup> , Hyesook Park <sup>3</sup> , Yun-Chul Hong <sup>4</sup> , Yangho Kim <sup>5</sup>   | Ulsan University Hospital, University of Ulsan College of Medicine Department of Pediatrics <sup>1</sup> , School of Medicine, Ewha Womans University Department of Occupational and Environmental Medicine <sup>2</sup> , School of Medicine, Ewha Womans University Department of Preventive Medicine <sup>3</sup> , Seoul National University College of Medicine Department of Preventive Medicine, <sup>4</sup> , Ulsan University Hospital, University of Ulsan College of Medicine Department of Occupational and Environmental Medicine <sup>5</sup> | The Role of Cadmium and C-Reactive Protein As Risk Factors for Allergic and Respiratory Diseases in Early Childhood: The Mothers and Children's Environmental Health Study |  |
| P02-7  | Jin Hee Kim <sup>1</sup> , Yelim Park <sup>2</sup> , Sung Koo Kim <sup>3</sup> , Hyo-Bang Moon <sup>4</sup> , Jeongim Park <sup>2</sup> , Kyungcho Choi <sup>5</sup> , Sungkyoon Kim <sup>5,6</sup>   | Sejong University Department of Integrative Bioscience & Biotechnology <sup>1</sup> , Soonchunhyang University Department of Environmental health Sciences <sup>2</sup> , Hallym University College of Medicine <sup>3</sup> , Hanyang University Department of Marine Sciences and Convergent Technology <sup>4</sup> , Seoul National University Department of Environmental Health <sup>5</sup> , Seoul National University Institute of Health and Environment <sup>6</sup>  | Lead and mercury levels in repeatedly collected urine samples of young children: A longitudinal biomonitoring study  |  |
| P02-8  | Jiyoung Shin <sup>1</sup> , Jueun Lee <sup>2</sup> , Eui-jung Kim <sup>3</sup> , Eunhee Ha <sup>1</sup>   | College of Medicine, Ewha Womans University Public Health, Department of Occupational and Environmental Medicine <sup>1</sup> , National Institute of Environmental Research Environmental Health Research Division <sup>2</sup> , College of Medicine, Ewha Womans University Department of Psychiatry <sup>3</sup>   | A 5-year trend in the prevalence of attention-deficit/hyperactivity disorder in children   |  |
| P02-9  | Ka Young Kim <sup>1</sup> , Eunil Lee <sup>2</sup> , Yang Hee Kim <sup>2</sup>  | Gachon university Nursing <sup>1</sup> , Korea university Preventive medicine <sup>2</sup>   | The association between bisphenol A and obesity in children: a systematic review with meta-analysis  |  |
| P02-10 | Kinga Polanska <sup>1</sup> , Elzbieta Trafalska <sup>2</sup> , Pawel Kaluzny <sup>1</sup> , Ewelina Wesolowska <sup>1</sup> , Wojciech Hanke <sup>1</sup>  | Nofer Institute of Occupational Medicine, Department of Environmental Epidemiology <sup>1</sup> , Medical University of Lodz, Department of Hygiene and Epidemiology <sup>2</sup>  | Correlates of maternal diet during pregnancy   |  |
| P02-11 | Kinga Polanska <sup>1</sup> , Wojciech Hanke <sup>1</sup> , Jolanta Gromadzinska <sup>2</sup> , Beata Janasik <sup>2</sup> , Wojciech Wasowicz <sup>2</sup> , Joanna Jerzynska <sup>3</sup> , Iwona Stelmach <sup>3</sup> , Fiorino Mirabella <sup>4</sup> , Flavia Chiarotti <sup>4</sup> , Gemma Calamandrei <sup>4</sup> | Nofer Institute of Occupational Medicine, Department of Environmental Epidemiology <sup>1</sup> , Nofer Institute of Occupational Medicine, Department of Biological and Environmental Monitoring <sup>2</sup> , Medical University of Lodz, Department of Pediatrics and Allergy <sup>3</sup> , National Institute of Health, Center for Behavioral Sciences and Mental Health <sup>4</sup>   | Impact of micronutrients during pregnancy on children's health and neurodevelopment  |  |
| P02-12 | Kyoung Min Kim <sup>1</sup> , Myung Ho Lim <sup>1</sup> , Ho-Jang Kwon <sup>1</sup> , Seung-Jin Yoo <sup>1</sup> , Eun-jung Kim <sup>1</sup> , Ki Chung Paik <sup>1</sup>   | Dankook University Medical Center Environmental Health Center <sup>1</sup>   | Associations between urinary cotinine and symptoms of attention deficit/hyperactivity disorder and autism spectrum disorder  |  |

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| P02-13 | Kyoung-Nam Kim <sup>1</sup> , Youn-Hee Lim <sup>2</sup> , Choong Ho Shin <sup>3</sup> , Young Ah Lee <sup>3</sup> , Yun-Chul Hong <sup>2,4</sup>   | Seoul National University Hospital Institute of Public Health and Medical Service <sup>1</sup> , Seoul National University College Environmental Health Center <sup>2</sup> , Seoul National University College of Medicine Department of Pediatrics <sup>3</sup> , Seoul National University College of Medicine Department of Preventive Medicine <sup>4</sup>  | Association between phthalate exposure and thyroid stimulating hormone levels among preschool-age children   |
| P02-14 | Kyung-Shin Lee <sup>1,2</sup> , Young Ah Lee <sup>3</sup> , Choong ho Shin <sup>3</sup> , Youn-Hee Lim <sup>1,2</sup> , Yun-Chul Hong <sup>1,2,4</sup>   | Seoul National University Medical Research Center Institute of Environmental Medicine <sup>1</sup> , Seoul National University College of Medicine Environmental Health Center <sup>2</sup> , Seoul National University College of Medicine Pediatrics <sup>3</sup> , Seoul National University College of Medicine Preventive Medicine <sup>4</sup>  | Association between urinary 3-phenoxybenzoic acid and body mass index z-score (BMIz) of 4-year-old children.   |
| P02-15 | Machiko Minatoya <sup>1,2</sup> , Keiko Yamazaki <sup>1,2</sup> , Sachiko Itoh <sup>1,2</sup> , Chihiro Miyashita <sup>1,2</sup> , Atsuko Araki <sup>1,2</sup> , Sumitaka Kobayashi <sup>1,2</sup> , Yu Ait Bamai <sup>1,2</sup> , Naomi Tamura <sup>1,2</sup> , Yoshiya Ito <sup>2,3</sup> , Reiko Kishi <sup>1,2</sup> | Dr. B.R. Ambedkar University, Khandari Campus, Agra-282002, India Department of Chemistry <sup>1</sup>  | Autism Spectrum Disorder screening in general Japanese toddlers using M-CHAT: an adjunct study of the Japan Environment & Children's Study.                              |
| P02-16 | Madhu _ Anand <sup>1</sup> , Ajay _ Taneja <sup>1</sup>  | Dr. B.R. Ambedkar University, Khandari Campus, Agra-282002, India Department of Chemistry <sup>1</sup>  | Levels of DDT/HCH in Placenta and Their Association with Birth Size  |
| P02-18 | Seulbi Lee <sup>1</sup> , Yun-Chul Hong <sup>2</sup> , Yangho Kim <sup>3</sup> , Mina Ha <sup>4</sup> , Hyesook Park <sup>5</sup> , Eunhee Ha <sup>6</sup>   | Ewha Womans University Department of Medical Science, College of Medicine <sup>1</sup> , Seoul National University Department of Preventive Medicine, College of Medicine <sup>2</sup> , Ulsan University Hospital, University of Ulsan College of Medicine Department of Occupational and Environmental Medicine <sup>3</sup> , Dankook University Department of Preventive Medicine, College of Medicine <sup>4</sup> , Ewha Womans University Department of Preventive Medicine, College of Medicine <sup>5</sup> , Ewha Womans University Occupational and Environment Medicine, College of Medicine <sup>6</sup> | Combined effect of prenatal exposure to multiple pollutants on birth weight using two supervised machine learning methods with principle components analysis             |
| P02-19 | Shinhee Ye <sup>1</sup> , Eun-kyo Park <sup>1</sup> , Yumin Lee <sup>1</sup> , Byung-Mi Kim <sup>2</sup> , Yun-Chul Hong <sup>3</sup> , Mina Ha <sup>4</sup> , Yangho Kim <sup>5</sup> , Hyesook Park <sup>1</sup> , Eun-Hee Ha <sup>1</sup>   | School of Medicine, Ewha Womans University Department of environmental and occupational medicine <sup>1</sup> , National Cancer Control Institute, National Cancer Center Division of Cancer Prevention <sup>2</sup> , Seoul National University College of Medicine Department of Preventive Medicine <sup>3</sup> , Dankook University College of Medicine Department of Preventive Medicine <sup>4</sup> , Ulsan University Hospital, University of Ulsan College of Medicine Department of Occupational and Environmental Medicine <sup>5</sup>   | Interactions between maternal GSTM1 polymorphism and prenatal polycyclic aromatic hydrocarbons exposure on atopic dermatitis at 24 months                                |
| P02-20 | Su Hyun . Shim <sup>1</sup> , Dong-Hun . Han <sup>2</sup>  | Kyungbok University Department of Dental Hygiene <sup>1</sup> , Seoul National University School of Dentistry Department of Preventive and Social Dentistry <sup>2</sup>  | Association between height and periodontitis in different birth cohorts of Korea   |
| P02-21 | Woo-Seok Lee <sup>1</sup> , Youn-Hee Lim <sup>2</sup> , Yun-Chul Hong <sup>1,2,3</sup>   | Seoul National University College of Medicine Department of Preventive Medicine <sup>1</sup> , Seoul National University Medical Research Center Institute of Environmental Medicine <sup>2</sup> , Seoul National University College of Medicine Environmental Health  | Growth parameters in 6-year old children exposed to Manganese from fruit consumption   |
| P02-22 | Young-Min Kim <sup>1,2</sup> , Inbo Oh <sup>3</sup> , Jihyun Kim <sup>1,2</sup> , Yoon-Hee Kang <sup>4</sup> , Kangmo Ahn <sup>1,2</sup>   | Samsung Medical Center Environmental Health Center for Atopic Diseases <sup>1</sup> , Sungkyunkwan University School of Medicine Department of Pediatrics, Samsung Medical Center <sup>2</sup> , University of Ulsan College of Medicine Environmental Health Center <sup>3</sup> , Pusan National University The Institute of Environmental Studies <sup>4</sup>   | The effect of ambient nitrogen dioxide on the acute symptoms of atopic dermatitis in young children: Applying the Community Multiscale Air Quality (CMAQ) Model          |
| P02-23 | Prince Narh Puplampu <sup>1</sup> , Stella Nako Kubi <sup>2</sup>  | University of Health and Allied Sciences School of Medicine <sup>1</sup> , University of Cape Coast School of Medicine <sup>2</sup>   | The Prevalence of Malaria in Children under five years: Knowledge, attitudes and practices of caregivers at Dominase in the Amansie West District, Ashanti Region. Ghana |