



VII International Scientific Conference
**“Current and Future Challenges
in Environmental Health, Toxicology, and Food Safety
in Eastern and Central Europe”**
May 2 – 5, 2006
Kyiv, Ukraine

ORGANIZED BY
Ministry of Health of Ukraine
L.I.Medved's Institute of Ecohygiene and Toxicology
Ukrainian Toxicology Society
NIEHS Superfund Basic Research Program
University of North Carolina at Chapel Hill
Texas A&M University

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Ukrainian Toxicology Society
Kyiv-2006

Meeting Location:

L.I.Medved's Institute of Ecohygiene and Toxicology
6 Heroiv Oborony Str.
Kyiv, Ukraine
www.medved.Kyiv.ua

Conference Organizing Committee:

Mykola G. Prodanchuk (L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine) – Chair
Ivan Rusyn (University of North Carolina at Chapel Hill, USA) – Co-Chair
James A. Swenberg (University of North Carolina at Chapel Hill, USA)
KC Donnelly (Texas A&M University, USA)
Leonid I. Vlasyk (Institute of Medical-Ecological Problems, Chernivsti, Ukraine)
Nadiya M. Nedopytanska (L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine)

CONFERENCE AGENDA

May 2, 2006 (Tuesday)

- 11 a.m. – 5 p.m. **ARRIVALS AND REGISTRATION**
Ukrainian House (Ukrainskyi Dim)
2, Khreshchatyk Street
Kyiv, Ukraine
- 5 p.m. – 6 p.m. **WELCOMING REMARKS**
Mykola Prodanchuk, Institute of Ecohygiene and Toxicology (Kyiv, Ukraine)
James Swenberg, University of North Carolina (Chapel Hill, USA)
Arpad Somogyi, The Toxicology Forum/EU (Brussels, Belgium)
- 6 p.m. – 6:30 p.m. **KEYNOTE ADDRESS 1**
SUPERFUND BASIC RESEARCH PROGRAM: BASIC SCIENCE TO RISK ASSESSMENT-IMPACTING HUMAN HEALTH AND THE ENVIRONMENT
William A. Suk
Director, Center for Risk and Integrated Sciences, National Institute of Environmental Health Sciences, Research Triangle Park, NC, USA
- 6:30 p.m. – 7 p.m. **KEYNOTE ADDRESS 2**
ENVIRONMENTAL HEALTH PROBLEMS IN EASTERN AND CENTRAL EUROPE: REGIONAL AND GLOBAL STRESSORS
Mykola Prodanchuk
Director, Institute of Ecohygiene and Toxicology, Kyiv, Ukraine
- 8 p.m. – 10 p.m. **WELCOMING DINNER**
on board of the ship "Marshal Koshevoi"
Riverside Station
Metro Station "Poshtova Ploscha"
Kyiv, Ukraine

May 3, 2006 (Wednesday)

All events of the day will be conducted on board of the ship "Marshal Koshevoi" cruising on Dnieper river

9 a.m. – 12 noon **SYMPOSIUM 1**
EVALUATION OF EXPOSURE AND EFFECTS OF ENVIRONMENTAL AGENTS:
BIOMARKERS

Symposium Chairs:

Igor Pogribny, National Center for Toxicological Research, Jefferson, AR, USA

Leena A. Nylander-French, Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina at Chapel Hill, USA

- 9:00 a.m. **BIOMARKERS: CHALLENGES FOR CHEMICAL ANALYSIS**
L.M. Ball, R. Sangaiah, K. Jayaraj, G. Boysen, A. Gold, W. Ye, K. M. Koshlap* and T.-G. Nam
Department of Environmental Sciences and Engineering, School of Public Health, and School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, USA
- 9:25 a.m. **PRODUCTS OF OXIDATION AS MEASURABLE INDICATORS OF OXIDATIVE STRESS: VALIDATION OF BIOMARKERS FROM RODENT CCL4 AND OZONE EXPOSURE**
Maria Kadiiska
National Institute of Environmental Health Sciences/National Institutes of Health, Research Triangle Park, North Carolina, USA
- 9:50 a.m. **DERMAL EXPOSURE: MOVING BEYOND QUALITATIVE ASSESSMENT**
Leena A. Nylander-French
Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina at Chapel Hill, USA
- 10:15 a.m. **THE ROLE OF EPIGENETICS IN INITIAL CARCINOGENICITY ASSESSMENT**
Igor Pogribny
National Center for Toxicological Research, Jefferson, AR, USA
- 10:40 a.m. **SERUM ALBUMIN ADDUCTS OF BENZENE OXIDE AND 1,4-BENZOQUINONE AS BIOMARKERS OF EXPOSURE TO BENZENE**
Waidyanatha S(1), Yeowell-O'Connell K(1), Lin YS(1), Tsai CH(1), Rothman N(2), Lan Q(2), Qu Q(3), Smith MT(4), Zhang L(4), Li G(5), Yin, S(5) and Rappaport S
(1)School of Public Health, University of North Carolina at Chapel Hill, USA, (2)Division of Cancer Epidemiology and Genetics, National Cancer Institute, USA, (3)Neslon Institute of Environmental Medicine, New York University School of Medicine, USA, (4)School of Public Health, University of California at Berkeley, USA, (5)Institute for Occupational Medicine, Beijing, China
- 11:05 a.m. **CYCLIC N-TERMINAL HEMOGLOBIN ADDUCT IN HUMANS, RATS AND MICE EXPOSED TO BUTADIENE**
N I Georgieva, G Boysen, J A Swenberg
Department of Environmental Sciences and Engineering, University of North Carolina, Chapel Hill, NC, USA
- 11:20 a.m. **ABUNDANT VAPOR-PHASE PAHS AND THEIR BIOMARKERS AS SURROGATE MEASURES OF TOTAL POLYCYCLIC AROMATIC HYDROCARBON EXPOSURE**
Jon R. Sobus, Suramya Waidyanatha and Steven M. Rappaport
Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina, USA
- 11:35 a.m. **DIRECT-ACTING OXIDATIVE MUTAGENS IN PAH-CONTAMINATED SOIL FROM A HAZARDOUS WASTE SITE**
Joanna Zielinska-Park and Michael D. Aitken
Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina, Chapel Hill, USA

9 a.m. – 12 noon **SYMPOSIUM 2**
REMEDIATION OF HAZARDOUS WASTE SITES

Symposium Chairs:

Muzafar Isobaev, Institute of Chemistry, Academy of Sciences of the Republic of Tajikistan, Tajik State Medical University, Dushanbe, Republic of Tajikistan

Michael D. Aitken, Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina at Chapel Hill, USA

9:00 a.m. BIODEGRADATION AND BIOREMEDIATION OF POLYCYCLIC AROMATIC HYDROCARBONS
Michael D. Aitken
Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina, Chapel Hill, North Carolina, USA

9:25 a.m. SYNTHESIS OF WATERSOLUBLE AND WATER SWELLING POLYMERS OF VINYLTRIMETHYLPIRIDONE IN THE MEDIA OF WATER AND THEIR SORPTION ABILITY RELATED TO ENDOTOXINES STUDY
M.D. Isobaev, B.D. Khalikov, S.N. Hakimhodjaev
Institute of Chemistry, Academy of Sciences of the Republic of Tajikistan, Tajik State Medical University, Dushanbe, Republic of Tajikistan

9:50 a.m. VEGETATED SOLUTIONS FOR NONPOINT SOURCE POLLUTION CONTROL
Stacy L Hutchinson^{*1}, Reid Christianson¹, Tim Keane²
Biological and Agricultural Engineering, Landscape Architecture / Regional and Community Planning, Kansas State University, Manhattan, KS, USA

10:15 a.m. DEVELOPMENT OF CLAY-BASED SORBENT TECHNOLOGIES FOR THE CONTROL AND REMEDIATION OF ENVIRONMENTAL CONTAMINANTS IN FOOD AND GROUNDWATER
Henry J. Huebner¹, Melinda C. Wiles¹, Evans Afriyie-Gyawu¹, Bhagirathi Dash¹, Thomas J. McDonald^{1,2}, K. C. Donnelly^{1,2}, and Timothy D. Phillips¹
¹Department of Veterinary Integrative Biosciences, ²Department of Environmental and Occupational Health, School of Rural Public Health, Texas A&M University System Health Science Center, College Station, TX, USA

10:40 a.m. THE COMPLEX FORMATION OF CALCIUM ION WITH THE MACROMOLECULARS OF PECTIN
I.A. Korsakova, M.D. Khalikova, H.H. Avloev, Z.K. Muhuddinov, M.D. Isobaev
Institute of Chemistry Academy of Sciences of the Republic of Tajikistan, Tajik State Medical University, Ainy 299/2, Dushanbe 734064, Republic of Tajikistan

11:05 a.m. PHYTOTECHNOLOGIES: INNOVATIVE METHODS TO CLEAN-UP OR STABILIZE ENVIRONMENTAL CONTAMINANTS USING VEGETATION
P. Kulakow
Department of Agronomy, Kansas State University, Manhattan, KS, USA

11:30 a.m. OPTIMIZING THE MANAGEMENT OF PHYTOREMEDIATION FOR THE HYDRAULIC CONTROL OF A GROUNDWATER PLUME
L. Christianson, S. Hutchinson, C. Barden, M. Roberts, G. Clark, P. Kulakow
Kansas State University, Manhattan, KS, USA

4 p.m. – 6:30 p.m. **SYMPOSIUM 3**
EVALUATION OF EXPOSURE AND EFFECTS OF ENVIRONMENTAL AGENTS:
RISK ASSESSMENT

Symposium Chairs:

Valentina Pidlisnyuk, National Agricultural University of Ukraine; Institute of Agroecology, Kyiv, Ukraine

Thomas McDonald, Department of Environmental and Occupational Health, School of Rural Public Health, Texas A&M System Health Science Center, College Station, Texas, USA

- 4 p.m. PSYCHOSOCIAL RISK ASSESSMENT AND RISK MANAGEMENT IN ENVIRONMENTAL DECISION MAKING
L. Lemyre^{1,2}, D. Krewski^{2,3}, R. Clarke^{3,4}, W. Corneil², M. Clement⁵, P. Boutette², M. G. Tyshenko², N. Karyakina²
¹School of Psychology, ²McLaughlin Centre Institute of Population Health, ³Department of Epidemiology and Community Medicine, University of Ottawa, ON; ⁴Public Health Agency of Canada; ⁵CanadianSponsors.com Inc., Ottawa, ON, Canada
- 4:25 p.m. CONTAMINANTS IN ENVIRONMENTAL SAMPLES FROM RESIDENTIAL AREAS IN SUMGAYIT, AZERBAIJAN
McDonald, T.J., K.C. Donnelly, R.L. Autenrieth, J.L. Bickham, C. Matson, R. Lingenfelter and C. Naspinski
Department of Environmental and Occupational Health, School of Rural Public Health, Texas A&M System Health Science Center, College Station, Texas, USA
- 4:50 p.m. PUBLIC ATTITUDE TO ENVIRONMENTAL PROBLEMS AND ENVIRONMENTAL HEALTH: CASE FROM POLTAVA, UKRAINE
Valentina V.Pidlisnyuk, Tatyana R.Stefanovska, and Lidiya I.Moklyachuk*
National Agricultural University of Ukraine; Institute of Agroecology, Kyiv, Ukraine
- 5:15 p.m. STRUCTURE-TOXICITY RELATIONSHIP FOR NEONICOTINOIDES
Prodanchuk, Mykola; Kravchuk, Oleksandr; Leposhkin, Igor; Nedopytanska Nadiya; Yermolova, Larysa
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine
- 5:40 p.m. IMPACT OF DISTANCE OF RESIDENCE OF MOTHERS FROM HAZARDOUS WASTE SITES(HWS) ON THE BIRTHWEIGHT OF THEIR NEWBORNS.A SLOVAKIAN PILOT STUDY
Marek Majdan
Trnava University, Faculty of Health and Social Work, Department of Hygiene and Epidemiology, Trnava, Slovak Republic
- 6:00 p.m. PREVALENCE OF CHRONIC CARDIOVASCULAR DISEASES IN A MINING AREA OF ROMANIA (ROSIA MONTANA)
Neamtiu I., Gurzau E.S., Coman A., Niciu E.M.
Environmental Health Center, Cluj-Napoca; Institute of Public Health, Bucharest, Romania

4 p.m. – 6:30 p.m. **SYMPOSIUM 4
TOXICOLOGICAL ASPECTS OF FOOD ADDITIVES AND DIETARY SUPPLEMENTS**

Symposium Chairs:

Georgiy Prodanchuk, G., L.I.Medved's Institute of ecohygiene and toxicology, Kyiv, Ukraine

Bernhard Hennig, Molecular and Cell Nutrition Laboratory, College of Agriculture and Graduate Center for Nutritional Sciences, University of Kentucky, Lexington, KY, USA

- 4:00 p.m. NUTRITIONAL MODULATION OF ENVIRONMENTAL TOXICITY
Bernhard Hennig^{1,2} and Michal Toborek^{2,3}
¹Molecular and Cell Nutrition Laboratory, College of Agriculture, ²Graduate Center for Nutritional Sciences, and ³Department of Neurosurgery, University of Kentucky, Lexington, KY, USA
- 4:25 p.m. THE SAFETY ASSESSMENT OF FOOD DERIVED FROM BIOTECH CROPS
Bruce Hammond
Product Safety Center, Monsanto Company, USA
- 4:50 p.m. TRANSGENIC SOURCES OF FOOD: SITUATION IN UKRAINE AND IN THE WORLD. TRANSFORMATIONAL CONSTRUCTS AS AN OBJECT OF DETECTION
V. Aristov, A. Sydorov, A. Krivenko
Center of DNA technologies, L.I.Medved's Institute of ecohygiene and toxicology, Kyiv, Ukraine

- 5:15 p.m. OVERVIEW OF EU, US, RUSSIAN AND UKRAINIAN LEGISLATION ON GMO
Prodanchuk G., Samilyak A.
L.I.Medved's Institute of ecohygiene and toxicology, Kyiv, Ukraine
- 5:40 p.m. GENETICALLY MODIFIED MICROORGANISMS. THE METHODS OF DETECTION
Demydonok O., Prodanchuk G., Aristov V.
Center of DNA technologies, L.I.Medved's Institute of ecohygiene and toxicology, Kyiv, Ukraine
- 5:55 p.m. DIETARY FATTY ACIDS: NUTRITIONAL MODULATORS OF CANCER RISK
Christine L. Powell^{1,2}, Pamela K. Ross², Oksana Kosyk², Blair U. Bradford², Robert Schoonhoven²,
Gunnar Boysen², James A. Swenberg^{1,2}, and Ivan Rusyn^{1,2}
¹Curriculum in Toxicology, ²Department of Environmental Sciences and Engineering, University of
North Carolina, Chapel Hill, NC, USA
- 6:10 p.m. GMO FOOD-STUFFS DETECTION
Melnichuk M.D., Melnichuk S.D.
National Agricultural University of Ukraine, Kyiv, Ukraine

7 p.m. – 8 p.m. **EVENING POSTER SESSION 1**

EVALUATION OF EXPOSURE AND EFFECTS OF ENVIRONMENTAL AGENTS: BIOMARKERS

METALS, METALLOTHIONEIN AND OXIDATIVE STRESS

M.B. Kadiiska, R.P.Mason, *S. Nesnow, **M. P. Waalkes, **J. Liu.

NIEHS/NIH, *USEPA, **NCI /NIH, Research Triangle Park, North Carolina, USA.

BIOMARKERS OF URBAN AIR ASSOCIATED GENOTOXICITY

Radim J. Sram

Institute of Experimental Medicine AS CR and Health Institute of Central Bohemia, Prague, Czech Republic

REMEDICATION OF HAZARDOUS WASTE SITES

ENHANCED REMEDIATION OF DNAPL-CONTAMINATED SUBSURFACE ENVIRONMENTS

J.A. Pedit, D.N. Johnson, P.M. Sanderson, L.L. Murphy, P.S. Birak, and C.T. Miller

Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina at Chapel Hill, USA

USE OF WILD PLANTS FOR DETOXICATION CHLORORGANIC PESTICIDES IN SOIL

A.Nurzhanova¹, P.Kulakow², E.Rubin³, I.Rakhimbayev¹, A.Sedlovskiy¹, K.Zhambakin¹, S.Kalugin¹,
L.Kalmykov⁴, L.Erickson²

¹Institute of Plant Physiology, Genetics and Bioengineering, Almaty, Kazakhstan, ²Kansas State University, Manhattan, KS, ³Technology Innovation and Field Services Division, USEPA, Washington, DC, USA, ⁴ Biomedpreparat, Biomonitoring Laboratory, Stepnogorsk, Akmolinsk, Kazakhstan

EVALUATION OF EXPOSURE AND EFFECTS OF ENVIRONMENTAL AGENTS: RISK ASSESSMENT

METHODICAL APPROACHES TO ECOTOXIC COMPOUNDS IDENTIFICATION

M.Gertsyuk

L.I.Medved's Institute of Ecohygiene and Toxicology (ECOHYNTOX), Kyiv, Ukraine

TO THE PROBLEM OF HYGIENIC ASSESSMENT OF CLOTHES AND FOOTWEAR

Rozhkovska G.P.

L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

TOXICITY OF POLYMERIC MATERIALS CONTAINED IN LUBRICATING MATERIALS

Rozhkovska G.P., Bobylivova O.O.

L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

SOME PROBLEMS THAT REQUIRE SOLVING WHEN ASSESSING NEW MATERIALS CONTACTING FOOD PRODUCTS

Rozhkovska G.P.

L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

ECOLOGICAL PROBLEMS OF CHEMICAL DEMILITARIZATION IN RUSSIA

Shulga V. Ya.^{1*}, Petrunin V.A.¹, Obratsov N.V.¹, Fokin E.A.¹, Kazakov P.V.¹, Stepanov A.A.¹, Sofronov G.A.²

¹Federal State Unitary Enterprise State Research Institute of organic chemistry and technology, Moscow, Russia; ² Army Medical Academy, Moscow, Russia

ASSESSMENT OF THE LEVEL OF MIGRATION OF ORGANOCHLORINE PESTICIDES FROM THE PROHIBITED AND OBSOLETE PESTICIDES STORAGE PLACES INTO THE GROUND WATERS

Stratulat T., Volneanscaia A., Sircu R., Socoliuc P., Cobzaru O., Dingovscaia Z., Covric A.

National Center for Scientific and Applied Preventive Medicine, Republic of Moldova

IMPACT OF DIFFERENT CLASTOGENES ON THE TYPE OF CHROMOSOMAL ABERRATIONS MEASURED BY FISH

O. Beskid, A. Rossnerova, I. Solanský, R.J. Šrám

Institute of Experimental Medicine AS CR and Health Institute of Central Bohemia, Prague, Czech Republic

'PROTECTIVE' FOODS FOR REDUCTION OF WATER AND FOOD PRODUCTS RADIONUCLIDE TOXICITY

I.N. Schevchenko, L.I.Medved's Institute of eco-hygiene and toxicology, Ministry of Health, Kyiv, Ukraine

USE OF ENDOTOXICOZUM PARAMETERS IN QUALITY PRESCRIBING METHODS OF XENOBIOTICS EMBRYOLOGIC ACTION DETECTION

Kornuta N.A., Stahovich V.I., L.I.Medved's Ecohygiene and Toxicology Institute, Kyiv, Ukraine

DETERMINATION OF ACETALDEHYDE AND FORMALDEHYDE IN WATER AND MODEL ENVIRONMENTS WITH METHOD OF LIQUID-GAS CHROMATOGRAPHY

Kravchenko T.I., Lazorenko N.I., L.I.Medved's Ecohygiene and Toxicology Institute, Kyiv, Ukraine

TOXICOLOGICAL ASPECTS OF FOOD ADDITIVES AND DIETARY SUPPLEMENTS

TRACEABILITY OF GMO-DERIVATIVES IN THE FOOD PRODUCTS: COMPARISON OF DIFFERENT DETECTION METHODS

Krivenko A., Samiyak A., Prodanchuk G., Institute of ecohygiene and toxicology, Kyiv, Ukraine

TO THE ESTIMATION OF DANGER OF AEROSOL INSECTICIDES AGAINST SYNANTHROPIC INSECTS

V. Voronina, S. Svetlyi

Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

TOXICOLOGICAL-HYGIENIC CHARACTERISTICS OF A NUMBER OF RODENTICIDE AGENTS

V. Voronina

L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

MICROBIOLOGICAL SAFETY OF THE FOODS - WHAT IS TO BE DONE

Kuzmynsky Sergiy

Medved's Institute for Ecohygiene and Toxicology, Kyiv, Ukraine

POSSIBILITY OF A DIETARY SUPPLEMENTS SIDE EFFECT CONCERNED WITH ENDOGENOUS SYNTHESIS OF FORMALDEHYDE

Dmitrenko M.P., Shandrenko S.G., Kishko T.O.

Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

ADVERSE REACTIONS TO DIETARY SUPPLEMENTS

Danik L.M., Podrushnyak A.E.

Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

THE SAFETY OF FOOD-STUFFS. TOXIC COEFFICIENTS OF ORGANOPHOSPHORUS AND
CARBAMATES PESTICIDES
V.D.Chmil, N.G.Prodanchuk, L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

May 4, 2006 (Thursday)

All events of the day will be conducted on board of the ship "Marshal Koshevoi" cruising on Dnieper river

9 a.m. – 12 noon **SYMPOSIUM 5 (PART 1)**
HEALTH EFFECTS: MODEL SYSTEMS AND ORGANISMS

Symposium Chairs:

David W. Threadgill, Department of Genetics, University of North Carolina, Chapel Hill, NC USA

Christophor Dishovsky, Military Medical Academy, Sofia, Bulgaria

- 9:00 a.m. STUDY ON OXIMES IN REVERSAL OF NEUROMUSKULAR BLOCK PRODUCED BY ORGANOPHOSPHORUS COMPOUNDS
C. Dishovsky
Military Medical Academy, Sofia, Bulgaria
- 9:25 a.m. GENETIC VARIATION DETERMINES RESPONSE TO ALKYLATING AGENT EXPOSURE AS MODELED BY AZOXYMETHANE
David W. Threadgill and Anika Bissahoyo
Department of Genetics, Curriculum in Toxicology and Center for Environmental Health and Susceptibility, University of North Carolina, Chapel Hill, NC USA
- 9:50 a.m. THE STATE OF SKIN IN THE CONDITIONS OF INFLUENCING OF NATURAL AND SYNTHETIC IRRITATING AGENTS
M.A. Mokhort*, O.E. Levchenko**
*Research institute of pharmacology and toxicology of AMS of Ukraine,**Ukrainian military medical academy, Kyiv, Ukraine
- 10:15 a.m. ROLE OF CYTOCHROME P450 2E1 INDUCTION IN MALE REPRODUCTIVE TOXICITY IN RATS
V. Kovalenko, N. Saprykina, T. Byshovetz
Institute of Pharmacology and Toxicology, Academy of Medical Sciences of Ukraine, Kyiv, Ukraine
- 10:40 a.m. TOXICOGENETIC ANALYSIS OF SUSCEPTIBILITY TO ACETAMINOPHEN HEPATOTOXICITY
Al Hege^{1,2}, PK Ross², L Balletta³, S Su⁴, IM Stylianou⁵, BU Bradford², G Boorman⁶, R Tennant⁶, M Bogue⁵, Kenneth Paigen⁵, T Wiltshire⁴, DW Threadgill^{1,3}, and I Rusyn^{1,2}
¹Curriculum in Toxicology, ²Department of Environmental Sciences and Engineering, ³Department of Genetics, University of North Carolina at Chapel Hill, USA; ⁴Department of Mouse Genetics, Genomics Institute of the Novartis Research Foundation, San Diego, California, USA; ⁵The Jackson Laboratory, Bar Harbor, Maine, USA; ⁶National Institute of Environmental Health Sciences, Research Triangle Park, NC, USA
- 10:55 a.m. INFLUENCE OF AMOSITE AND GLASS FIBRES ON THE SELECTED INFLAMMATORY AND CYTOTOXIC PARAMETERS OF BRONCHOALVEOLAR LAVAGE IN EXPERIMENT
¹Hurbankova, M., ¹Cerna S., ²Gergelova, P., ¹Sulcova, M.
¹Slovak Medical University, Bratislava, ²Trnava University, Faculty of Health Care and Social Work , Trnava, Slovak Republic
- 11:10 a.m. EARLY-LIFE EXPOSURE TO DIETARY FAT AND AROMATIC HYDROCARBONS CAUSES METABOLIC SYNDROME, MORPHOLOGICAL CHANGES IN THE MAMMARY GLAND AND INDUCTION OF P450 PATHWAY IN DBA/2J MICE.
La Merrill, M. A.^{1,2,3}, Kuruvilla, B. S.^{3,4}, D. W. Threadgill^{1,2,3}
¹Center for Environmental Health and Susceptibility, ²Curriculum in Toxicology, ³Department of Genetics, ⁴Department of Chemistry, University of North Carolina at Chapel Hill, USA

9 a.m. – 12 noon **SYMPOSIUM 6 (PART 1)**
HEALTH EFFECTS: HUMAN STUDIES

Symposium Chairs:

James Swenberg, Department of Environmental Sciences and Engineering, University of North Carolina, Chapel Hill, NC USA

A. Epifantsev, Military Medical Academy, St.-Petersburg, Russia

- 9:00 a.m. GENOTOXICITY OF COMPLEX PAH MIXTURES IN ANIMALS AND HUMANS
Donnelly, K.C., T.D. Phillips, L. Cizmas, G.D. Zhou, T.J. McDonald, R.L. Autenrieth, Z.S. Naufel, R. Lingenfelter and L.Y. He
Department of Environmental and Occupational Health, School of Rural Public Health, Texas A&M University Health Science Center, College Station, TX, USA.
- 9:25 a.m. MEDICAL CONSEQUENCES OF THE ENVIRONMENT CONTAMINATION WITH DIOXIN-
CONTAINING HERBICIDES
Epifantsev A.V., Pchelina I.J.
Military Medical Academy, St.-Petersburg, Russia
- 9:50 a.m. HAZARDOUS WASTE SITE CHEMICALS: POTENTIAL ROLE OF OXIDATIVE STRESS IN
TOXICITY AND CARCINOGENICITY
James A. Swenberg, Gunnar Boysen, Yo-Chan Jeong, April Luke, Eric Morinello, Amy Ham and Nigel Walker
Departments of Environmental Sciences and Engineering and Pathology and Laboratory Medicine, and the Curriculum in Toxicology, University of North Carolina, Chapel Hill, and the National Institute of Environmental Health Sciences, Research Triangle Park, NC, USA
- 10:15 a.m. THE EVALUATION OF DANGER OF MODULATING FUNCTION OF SEX HORMONES
PESTICIDES FOR HUMAN
E.A. Bagley, P.G. Zhminko, N.N. Nedopitanskaya, M.G. Prodanchuk
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine
- 10:40 a.m. MEDICAL ASPECTS OF CHEMICAL TERRORISM: ANTIDOTES OF PHOSPHORORGANIC
COMPOUNDS
Kokshareva N.V., Prodanchuk M.G, Krivenchuk V.E., Zinovieva M.L. Tkach V.F.
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine
- 11:05 a.m. DERMAL EXPOSURE TO JET FUEL JP-8 SIGNIFICANTLY CONTRIBUTES TO THE
PRODUCTION OF URINARY NAPHTHOLS IN FUEL-CELL MAINTENANCE WORKERS
Yi-Chun E. Chao¹, Lawrence L. Kupper², Berrin Serdar¹, Peter P. Egeghy¹, Stephen M. Rappaport¹,
and Leena A. Nylander-French¹
¹Department of Environmental Sciences and Engineering and ²Department of Biostatistics, School of Public Health, University of North Carolina at Chapel Hill, NC, USA
- 11:20 a.m. HEALTH EDUCATION AS AN INTERVENTION TO REDUCE CHILDHOOD EXPOSURE TO
PESTICIDES IN RURAL TEXAS COLONIAS
Hart, Cynthia, Leslie Cizmas, N. Foreman, G. Castillo, L. Gamm, J. Burdine, Carmen Sumaya¹,
Melly Tamez¹, Dana Barr², Thomas McDonald and K.C. Donnelly
School of Rural Public Health, Center for Environmental & Rural Health¹, Texas A&M University,
and Centers for Disease Control², USA
- 11:35 a.m. AIR POLLUTION - EXPOSURE TO PM2.5 FROM TRAFFIC
Vlasta Svecova, Radim J.Sram
Laboratory of Genetic Ecotoxicology, Institute of Experimental Medicine AS CR, Prague,
Czech Republic

3 p.m. – 5:30 p.m. **SYMPOSIUM 5 (PART 2)**
 HEALTH EFFECTS: MODEL SYSTEMS AND ORGANISMS

Symposium Chairs:

Ivan Rusyn, Department of Environmental Sciences & Engineering, University of North Carolina, Chapel Hill, USA
Nadiya Nedopytanska, L.I.Medved Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

- 3:00 p.m. TOXICOLOGICAL EFFECTS AND HUMAN RISK ASSESSMENT OF NEW FUNGICIDE FENHEXAMID
Lepeshkin, P.Zhminko, A. Kravchuk, N. Nedopytanska, A.Grynko, L. Yermolova, G.Zvarich, S.Yuschuk, G.Kravchenko
L.I.Medved Institute of Ecohygiene and Toxicology (ECOHYNTOX), Kyiv, Ukraine
- 3:25 p.m. NA⁺K⁺-ATPASE ACTIVITY OF THE RAT HEPATOCYTE PLASMA MEMBRANE AFTER SUBCHRONIC INTRAGASTRIC INTRODUCING OF HERBICIDE 2,4-DICHLORO-PHENOXYACETIC ACID, PLANT GROWTH REGULATORS IVIN AND POTATIN
Zelenyuk V.O., Yablonska S.V., Ostrovska G.V., Rybalchenko T.V., Filinska O.M.
Taras Shevchenko Kyiv National University, Kyiv, Ukraine
- 3:50 p.m. INFLUENCE OF SOME MEDICINES ON THE DYNAMICS OF ACTG AND CYCLIC NUCLEATIDES CHANGES UNDER ACUTE TOXIC LIVER DISEASE
Vysotsky I.Y.
Medical Faculty, Sumy State University, Sumy, Ukraine
- 4:15 p.m. THE CHEMICAL AND ANALYTICAL ASPECTS OF POLYCHLORINATED DIBENZODIOXINS AND OTHERS PERSISTENTS ORGANIC POLLUTANTS
N.G. Prodanchuk, V.D. Chmil
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine
- 4:40 p.m. IN VITRO GENOTOXICITY OF PAH MIXTURES AND ORGANIC EXTRACT FROM URBAN AIR PARTICLES
O. Sevastyanova¹, B. Binkova¹, J.Topinka¹, I. Kalina², T.Popov³, Z. Suchankova¹, P.B. Farmer⁴, R.J. Sram¹
1.Institute of Experimental Medicine AS CR and Health Institute of Central Bohemia, Prague, Czech Republic; 2. University PJ Safarik, Kosice, Slovak Republic; 3.National Centre of Hygiene, Sofia, Bulgaria; 4. Biocentre, University of Leicester, UK
- 4:55 p.m. ROLE OF NUCLEAR-RECEPTOR INDEPENDENT MECHANISMS IN LONG-TERM EFFECTS OF NON-GENOTOXIC HEPATOCARCINOGENS
C.G. Woods¹, A.M. Burns¹, A. Maki¹, B.U. Bradford¹, M.L Cunningham², M.B. Kadiiska³, R.P. Mason³, A. M. Burns⁴, J. M. Peters⁴, and I. Rusyn¹
¹Dept. of Environmental Sciences and Engineering, UNC, Chapel Hill, NC; ²NCT and NTP, and ³Laboratory of Pharmacology and Chemistry, NIEHS, Research Triangle Park, NC; ⁴Dept. of Veterinary and Biomedical Sciences, PSU, State College, PA, USA

3 p.m. – 5:30 p.m. **SYMPOSIUM 6 (PART 2)**
 HEALTH EFFECTS: HUMAN STUDIES

Symposium Chairs:

Michal Toborek, Molecular Neuroscience and Vascular Biology Laboratory, Department of Surgery, University of Kentucky, Lexington, USA
Ainash Sharshenova, Scientific and Productive Centre for Preventive Medicine, Bishkek, Kyrgyz Republic

- 3:00 p.m. DIOXINS INTOXICATION IN HUMANS: THEORETICAL BASES OF THE TREATMENT
Epifantsev A.V., Pchelin I.J.
Military Medical Academy, St.-Petersburg, Russia
- 3:25 p.m. STUDY OF THE QUALITY OF FOOD-PRODUCTS AND THE STATE OF HEALTH OF THE POPULATION OF THE ISYKKOL REGION, KYRGYZSTAN

A.A. Sharshenova¹, O.T.Kasymov¹, M.K. Esenamanova¹, E.J. Majikova¹, M. Maignan²,
A.-L.Zufferey², M.J.Kudayarova¹
¹Scientific and Productive Centre for Preventive Medicine, Bishkek, Kyrgyz Republic; ²Institute of
Mineralogy and Petrography Geostatistics, University of Lausanne, Switzerland

- 3:50 p.m. REDOX-REGULATED MECHANISMS OF *ORTHO*-CHLORINATED PCB-INDUCED TRANS-
ENDOTHELIAL MIGRATION OF TUMOR CELLS
Michal Toborek¹ and Bernhard Hennig²
¹Molecular Neuroscience and Vascular Biology Laboratory, Department of Surgery and ²Molecular
and Cell Nutrition Laboratory, College of Agriculture, University of Kentucky, Lexington, KY, USA
- 4:15 p.m. THE ROLE OF THE HAZARDOUS FACTORS STATE REGISTRATION UNDER CARRYING OUT
THE SOCIAL & HYGIENIC MONITORING, ASSESSMENT AND MANAGEMENT OF RISK
O. Kravchuk, N. Potyomkina, N.Nemtseva, T.Revutsky
Hygienic Regulation Committee of Public Health Ministry of Ukraine, Kyiv, Ukraine
- 4:40 p.m. SYSTEMIC PRINCIPLE OF REGULATION IN A MODEL XENOBIOTIC-ENVIRONMENT-HUMAN
Y.Spinu, Y.Chayka
L.I.Medved's Institute of Ecohygiene and Toxicology (ECOHYNTOX), Kyiv, Ukraine
- 5:05 p.m. MEASUREMENT OF EXPOSURE TO COMPLEX MIXTURES OF POLYCYCLIC AROMATIC
HYDROCARBONS IN HUMAN POPULATIONS
Lingenfelter, Rebecca¹; Naufal, Ziad¹; Cizmas, Leslie¹; Naspinski, Christine¹; He, Ling-Yu¹; Zhou,
Guo-Dong¹; McDonald, Thomas¹; Denoux, Guy¹; Autenrieth, Robin¹; Mekhtiev, Arif³; Islamzadeh,
Arif²; Donnelly, Kirby¹
Texas A&M University, College Station, TX, USA.; ²Institute of Physiology n.a. A.I.Karaev, Baku,
Azerbaijan; ³Sumgayit Centre For Environmental Rehabilitation, Sumgayit, Azerbaijan
- 5:20 p.m. EFFECTS OF ARSENIC EXPOSURE FROM DRINKING WATER ON RESPIRATORY ILLNESSES
IN A BANGLADESH POPULATION
Faruque Parvez^{1*}, Paul W. Brnadt-Rauf¹, Yu Chen², Alfred Bernard³, Vesna Slavkovich¹, Joseph H.
Graziano¹, and Habibul Ahsan²
¹Department of Environmental Health Science and ²Department of Epidemiology, Mailman School
of Public Health, Columbia University, New York, USA; Unit of Industrial Toxicology and
Occupational Medicine, Department of Public Health, Catholic University of Louvain, Brussels,
Belgium

7 p.m. – 8 p.m. **EVENING POSTER SESSION 2**

HEALTH EFFECTS: MODEL SYSTEMS AND ORGANISMS

USE OF THE EXPRESS-METHOD AS AN ALTERNATIVE TO ANIMAL EXPERIMENTATION FOR
PROGNOS OF TOXICITY

Levitskaya V.N., Kharchenko T.F., Kharchenko O.A.
L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

SUBCHRONIC ORAL TOXICITY OF METHSULPHURON-METHYL FOR WISTAR RATS
Avramenko V.G., Zhminko P.G., Perehrestenko V.A., Ovcharenko V.I., Nadtochyi O.P., Veris T.N.
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

FORECASTING OF PROFESSIONAL FUNCTIONABILITY IN DANGEROUS AND EMERGENCIES
I.Khudetskiy, V.Voronenko, Ukrainian military medical academy, Kyiv, Ukraine

THE PLANT GROWTH REGULATORS INFLUENCE ON THE LIVER MICROCIRCULATION.
COMPARISON OF INDIVIDUAL AND SIMULTANEOUS ACTION
Karpezo N.O., Rybalchenko V.K., Ostrovska G.V., Gurniak O.M., Tsyvinska S.N.
Taras Shevchenko National University, Kyiv, Ukraine

COMPARABLE STUDY OF SODIUM SUCCINATE HEPATOPROTECTIVE EFFECTS UNDER 2,4-D AND IVIN ACTION

Linchack O.V., Karpezo N.O., Ostrovska G.V., Rybalchenko V.K.
Taras Shevchenko Kyiv National University, Ukraine

STUDY OF ONCOGENIC AND CYTOTOXIC EFFECT OF CARBENDAZIM IN RATS

V.Lisovska, E.Bagliy
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

EFFECT OF IMIDAKLOPRID ON ANIMAL BEHAVIOR REACTIONS

V.A. Perehrestenko
L.I. Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

METHODICAL APPROACHES TO THE ESTIMATION OF HARMFUL ACTION OF CHEMICAL SUBSTANCES ON THE NERVOUS SYSTEM

Perehrestenko V.A., Zhminko P.G.
L.I. Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

EFFECT OF CARBOXYNE ON HAEMATO-LOGICAL PARAMETERS OF RATS

Z. Podzerey, V. Shulyak
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

MORPHOLOGICAL CHANGES OF RAT NASAL CAVITY INDUCED BY ACETOCHLOR

Olena Reshavska
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

MUTAGENICITY STUDIES OF METHSULFORON METHYL

T. Senchenko, I. Boltina, O. Tkachuk
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

INFLUENCE OF TETRAN ON GROWTH OF INFUSORIANS POPULATION TETRAHYMENA PYRIFORMIS W

O.P. Zhminko
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

THE HEMOCARBOPERFUSION AS PREVENTION OF THE DELAYED NEUROPATHY, CAUSED BY ORGANOPHOSPHOROUS COMPOUNDS

P.G.Zhminko¹, V.N.Korol²
¹L.I. Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine, ²National Medical University, Kyiv, Ukraine

DETERMINATION OF THE FUNCTIONAL PROPERTIES OF THE BIOLOGICALLY ACTIVE DETOXICANT MAGNESIUM-PECTIN COMPLEX (IN VITRO) ON ALTERNATIVE MODELS

A.N.Stroy, O.O.Hudaikulova
L.I. Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

EXPRESS-METHOD OF THE DETERMINATION OF COMPLEXING ABILITY OF AMIDOPECTIN - DETOXICANT

A.N.Stroy, O.O.Hudaikulova, N.V.Gladkaya, E.V.Khruschiova
L.I. Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

HEALTH EFFECTS: HUMAN STUDIES

TO PROBLEM OF THE COMBINED ACTION OF PESTICIDES

Avramenko V.G.
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

CLINICAL AND HYGIENIC ASPECTS OF RISK PROGNOSIS OF DEVELOPMENT OF CHRONIC PESTICIDES INTOXICATIONS OF AGRICULTURAL WORKERS

G.Balan, A.Ivanova, S.Ivanova

L.I.Medved's Ecohygiene and Toxicology Institute, Kyiv, Ukraine

PROTEOMIC AND PATTERNS OF ENDOTOXEMIA MANIFESTATIONS

B.S. Sheyman, O.I. Osadchaya, N.A. Voloshina, O.S. Boyarina
L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

USE OF AUTOHEMOPERFUSION OF UV-IRRADIATED BLOOD FOR THE TREATMENT OF CHRONIC DERMATOSIS

¹V.N. Korol, ¹V.G. Kolyadenko, ²P.G. Zhminko, ¹S.V. Ivanov, ¹N.M. Shupenko, ²N.V. Kirilenko
¹National Medical University, Kyiv, Ukraine, ²L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

HOUSEHOLD CLEANERS. SAFETY FOR HUMAN HEALTH AND ENVIRONMENT

O. Bobyliova, V.Gerasimova, S. Snoz, V. Shilina
Medved's Institute of Ecohygiene and Toxicology, Ministry of Health, Kyiv, Ukraine

THE PECULIARITIES OF CHILDREN'S MORBIDITY DURING FIRST YEAR OF LIFE IN DEPENDENCE ON SEX IN INDUSTRIAL REGION

V. F. Bogoyavlenskaya, A. V. Kharlamova, Ye. G. Bichevaya, P. S. Bazovkin, A.A. Azyrna, Ye. F. Pavlichenko
Ukrainian Research Institute of Industrial Medicine, Krivoy Rog, Ukraine

INFLUENCE OF CHEMICAL SUBSTANCES ON HEALTH OF THE POPULATION: APPROACHES TO ESTABLISHMENT OF THE RELATIONSHIPS OF CAUSE AND EFFECT

A.N. Grebenyuk, J.I. Musijchuk
Military Medical Academy, St.-Petersburg, Russia

EFFECT OF DIOXIN AND DIOXIN-LIKE COMPOUND ON REPRODUCTIVE SYSTEM

Gunkov S. V., Voznuk V.V., Babich V.A., Babich S.V., Gladkaya N.V.
L.I.Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

MEDICAL ASPECTS OF CHEMICAL TERRORISM: ANTIDOTES OF PHOSPHORORGANIC COMPOUNDS

Kokshareva N.V., Prodanchuk M.G, Krivenchuk V.E., Zinovieva M.L. Tkach V.F.
Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

INFLUENCE OF MOTHER MULNURITION IN OVER SALT CONDITION ON FORMATION OF DIGESTION FUNCTION IN OFFSPRING

L.S. Kuchkarova, B.A. Sodikov, N.A. Ergashev, G.A. Dustmatova, D.T. Sidikov
Institute of physiology and biophysics, Academy of Sciences, Tashkent, Republic of Uzbekistan

TOXICOLOGICAL EVALUATION OF HAZARD LIMIT FOR ORGANISM ACUTE INTOXICATION BY CARBON MONOXIDE

Shulga V. Ya.^{1*}, Obraztsov N.V.¹, Stepanov A.A.¹, Sofronov G.A.²
¹Federal State Unitary Enterprise State Research Institute of organic chemistry and technology, Moscow, Russia; ² Army Medical Academy, Moscow, Russia

MEDICAL PREPARATIONS AS ENVIRONMENTAL RISK FOR HUMAN

Y.V.Bardik*, O.O.Bobulova, L.I. Povyakel
Institute of Pharmacology and Toxicology, Academy of Medical Sciences of Ukraine, Kyiv*, L.I.Medved's Ecohygiene and Toxicology Institute, Ministry of Health, Kyiv, Ukraine

FEATURES OF CLINIC AND PATHOGENESIS OF TMTD CHRONIC INTOXICATION

Yurchenko I.V., Yurchenko E.M.
L.I.Medved's Ecohygiene and Toxicology Institute, Kyiv, Ukraine

ADDRESSING THE ISSUE OF ESTIMATION OF THE LEVEL OF HAZARD OF THE NEW INSECTICIDAL MEANS USED IN MEDICAL EXTERMINATION OF INSECTS

Svetly S.S., Lyubinskaya L.A.

L.I. Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

COMPARATIVE ESTIMATION OF ALLERGEN ACTION OF PREPARATIONS ON METHSULFURON-METHYL BASIS

P. Zhminko, N. Kirilenko, V. Gerasimenko

L.I. Medved's Institute of ecohygiene and toxicology, Kyiv, Ukraine

THE SANITARY LEGISLATION IN UKRAINE IN THE SPHERE OF TOBACCO CONTROL

A.A. Podrushnyak, A.N. Stroy, O.O. Hudaikulova, V.V. Lemeschuk, N.V. Gladkaya, E.V. Khrushchova

L.I. Medved's Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

THE HYGIENIC PROBLEMS OF USING THE INTENSIVE SWEETENERS IN HUMAN CONSUMPTION

O.V. Tsapko, A.E. Podrushnyak, Z.L. Voloshchenko, T.A. Shchutskaya

L.I. Medved Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

ALTERNATIVES OF DANGEROUS WASTE HANDLING

L.I. Povyakel, Y.I. Loboda, I.M. Vershelis

L.I. Medved's Ecohygiene and Toxicology Institute, Kyiv, Ukraine

May 5, 2006 (Friday)

**All events of the morning session will be conducted on board of the ship "Marshal Koshevoi,"
Riverside Station, Metro Station "Poshtova Ploscha," Kyiv, Ukraine**

9 a.m. – 10 a.m. **SUMMARY OF THE SYMPOSIA AND POSTER SESSIONS**

Presented by the Chairs of each session (6 × 10 min)

10 a.m. – 12 a.m. **PANEL DISCUSSION
SIMILARITIES AND DIFFERENCES BETWEEN THE US/EU AND
EASTERN/CENTRAL EUROPE IN CURRENT AND FUTURE CHALLENGES IN
ENVIRONMENTAL HEALTH AND PROTECTION: CHARTING THE PATH
FORWARD FOR THE ADVANCEMENT OF BASIC SCIENCE**

Moderators:

Mykola Prodanchuk, Institute of Ecohygiene and Toxicology, Kyiv, Ukraine

Ivan Rusyn, University of North Carolina, Chapel Hill, USA

Arpad Somogyi, The Toxicology Forum/EU, Brussels, Belgium

Natalya Shulga, University Kyiv-Mohyla Academy, Kyiv, Ukraine