



International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011

The Greek Ministry of Environment, Energy and Climate Change in collaboration with the Greek Ministry of Health in order to provide updated answers to the problem of Hexavalent Chromium in drinking water is organizing an

INTERNATIONAL EXPERTS WORKSHOP ON “HEXAVALENT CHROMIUM IN DRINKING WATER”

to bring together leading international experts and top administrators from the European Union and the United States that will

- ***Present the most recent scientific evidence***
- ***Share the regulatory experiences from the United States and the European Union***
- ***and Discuss with the Greek authorities and scientists the issues related to the presence of Cr(VI) in drinking water***





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SATURDAY, JANUARY 15, 2011

GREETINGS AND INTRODUCTION

- 9 am-9:10 am: **GREETING: Dr. Tina BIRBILI MINISTER OF ENVIRONMENT, ENERGY, AND CLIMATE CHANGE**
- 9:10 am-9:20 am: **GREETING: Dr. Andreas LOVERDOS MINISTER OF HEALTH AND SOCIAL SOLIDARITY**
- 9:20 am -9:40 am: **Dr. Andreas ANDREADAKIS *Introduction to the Topic*
SPECIAL SECRETARY FOR WATER
GREEK MINISTRY OF ENVIRONMENT, ENERGY, & CLIMATE CHANGE
PROF. NATIONAL TECHNICAL UNIVERSITY OF ATHENS**

MORNING SESSION: SCIENTIFIC & REGULATORY CHALLENGES, NEEDS

- 9:40 am-10:00am: **Dr. Alan T. STONE *“Chemistry of Cr(VI) and its Transformation Products in Environmental Aqueous Media”*
PROFESSOR (ENVIRONMENTAL AND AQUATIC CHEMISTRY)
DEPARTMENT OF GEOGRAPHY & ENVIRONMENTAL ENGINEERING
G.W.C. WHITING SCHOOL OF ENGINEERING
JOHNS HOPKINS UNIVERSITY, MARYLAND**
- 10:00 am -10:20 am: **Dr. John A. IZBICKI *“Natural versus Anthropogenic Sources of Cr(VI), and Methods to Distinguish”*
UNITED STATES GEOLOGICAL SURVEY (USGS)
SAN DIEGO, CALIFORNIA**





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CLIMATE
CHANGE

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SOLIDARITY

International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011

10:20 am–10:40 am: **Dr. Panagiotis MITROPOULOS** *“High Cr Concentrations in Ground Waters, Soils, and Plants due to the Presence of Ophiolitic Rocks: A Case Study in Central Greece”*

PRESIDENT: INSTITUTE OF GEOLOGY & MINERAL EXPLORATION (I.G.M.E.)
PROFESSOR OF GEOCHEMISTRY
DEPARTMENT OF GEOLOGY & GEOENVIRONMENT
NATIONAL KAPODISTRIAN UNIVERSITY OF ATHENS

COFFEE BREAK: 10:40 am – 10:55 am

10:55 am-11:05 am: **Vassiliki KARAOLI** *“Implementation of the Drinking Water Directive in Greece”*

DIRECTOR “SANITARY ENGINEERING & ENVIRONMENTAL HYGIENE”
GREEK MINISTRY OF HEALTH AND SOCIAL SOLIDARITY

11:05 am-11:15 am: **Margarita KARAVASILI** *“The Asopos River Tragedy: An Environmental Crime of European Importance”*

SPECIAL SECRETARY FOR THE ENVIRONMENT & ENERGY INSPECTORATE
GREEK MINISTRY OF ENVIRONMENT, ENERGY, & CLIMATE CHANGE

11:15 am-11:35 am: **Dr. Mitchell D COHEN** *“Toxicological Effects of Cr(VI) and Mechanisms of Chromium Uptake in the Body”*

ASSOCIATE PROFESSOR OF ENVIRONMENTAL MEDICINE
NEW YORK UNIVERSITY LANGONE MEDICAL CENTER

11:35 am-11:55 am: **Dr. Nathalie ARNICH** *“Dietary Exposure of the French Population to Chromium and Review of the Toxicological data for Cr(III) and Cr(VI)”*

ANSES - THE FRENCH AGENCY FOR FOOD, ENVIRONMENTAL AND
OCCUPATIONAL HEALTH SAFETY
DIRECTION DE L’EVALUATION DES RISQUES (DER)
UNITE D’EVALUATION DES RISQUES PHYSICO-CHIMIQUES (UERPC)





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CLIMATE
CHANGE

Special Secretariat for Water



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SOLIDARITY

International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011

- 11:55 am-12:15 pm: **Dr. Athena LINOS** *"Findings and Update of the Oinofyta Observatory Epidemiological Study"*
PROFESSOR OF EPIDEMIOLOGY & PREVENTION OF ENVIRONMENTAL
OCCUPATIONAL DISEASES
MEDICAL SCHOOL
NATIONAL KAPODISTRIAN UNIVERSITY OF ATHENS
- 12:15 am-12:35 pm: **Dr. Kurt STRAIF** *"The Carcinogenicity of Cr(VI)-Evaluations by the IARC Monographs Programme"*
ACTING HEAD IARC MONOGRAPHS
INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
WORLD HEALTH ORGANISATION

AFTERNOON SESSION: SCIENTIFIC & REGULATORY CHALLENGES, NEEDS

- 14:30 pm-14:50 pm: **Dr. Christopher PORTIER** *"Policy and Regulatory Initiatives at the US Department of Health and Human Services Regarding Cr(VI)"*
DIRECTOR NATIONAL CENTER FOR ENVIRONMENTAL HEALTH/AGENCY FOR
TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR)
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
- 14:50 pm-15:10 pm: **Dr. Dimitrios TRICHOPOULOS** *"Epidemiological Studies of Cr(VI) Effects with Emphasis on Oral Exposure"*
VINCENT L. GREGORY PROFESSOR OF CANCER PREVENTION
DEPARTMENT OF EPIDEMIOLOGY
HARVARD UNIVERSITY, BOSTON
- 15:10pm-15:30pm: **Dr. George ALEXEEFF** *"The California Experience: Public Health Goal for Cr(VI) in Drinking Water"*
DEPUTY DIRECTOR FOR SCIENTIFIC AFFAIRS
OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (EPA)





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ENERGY &
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Special Secretariat for Water



MINISTRY OF HEALTH AND SOCIAL
SOLIDARITY

International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011

15:30pm-15:50pm: **Dr. Ir. Adriana D. HULSMANN** *“Closing Remarks and the EU Directive on Quality of Water for Human Consumption”*
KWR WATERCYCLE RESEARCH INSTITUTE
DRINKING WATER/EU POLICY LEGISLATION
CONSULTANT TO DG ENVIRONMENT EUROPEAN COMMISSION

COFFEE BREAK: 15:50 pm – 16:10 pm

EVENING SESSION: ROUND TABLE DISCUSSION

16:10pm–17:30pm: **FUTURE NEEDS:** RESOLVING SCIENTIFIC ISSUES, COLLABORATION AND INITIATIVES AT THE GLOBAL LEVEL, REGULATORY EXCHANGE BETWEEN US AND EU AGENCIES

Workshop Coordinators

Dr. Andreas ANDREADAKIS SPECIAL SECRETARY FOR WATER
GREEK MINISTRY OF ENVIRONMENT, ENERGY, & CLIMATE CHANGE
PROF. NATIONAL TECHNICAL UNIVERSITY OF ATHENS

Dr. Evan K. PALEOLOGOS SCIENCE ADVISOR TO THE MINISTER
GREEK MINISTRY OF ENVIRONMENT, ENERGY, & CLIMATE CHANGE
ASSOC. PROF. TECHNICAL UNIVERSITY OF CRETE





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SOLIDARITY

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**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011

LIST OF SPEAKERS
SHORT BIOGRAPHICAL SKETCHES
(Alphabetical Order)





International
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**HEXAVALENT CHROMIUM
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JANUARY/15/2011



George ALEXEEFF, PhD
Deputy Director for Scientific Affairs
Office of Environmental Health Hazard Assessment (OEHHA)
California Environmental Protection Agency (EPA)

Highlights of Dr. Alexeeff's Professional Career

Dr. Alexeeff is Deputy Director for Scientific Affairs, OEHHA, California EPA and also an Adjunct Professor in the Department of Environmental Toxicology at the University of California at Davis. He earned his Ph.D. in Pharmacology and Toxicology from the University of California at Davis and has been certified as a Diplomat of the American Board of Toxicology, Inc. (DABT) since 1986.

Dr. Alexeeff has reviewed over 140 documents evaluating human epidemiological or animal toxicological evidence for OEHHA or other agencies such as U.S. EPA.

He has recently served on the following National Academy of Sciences Committees: Review of the Federal Strategy to Address Environmental, Health, and Safety Research Needs for Engineered Nanoscale

Materials (2008); Evaluating Efficiency of Research and Development Programs at the U.S. Environmental Protection Agency (2007); and Review the Office of Management and Budget Risk Assessment Bulletin (2006).

Dr. Alexeeff's professional activities include: President of the Northern California Chapter of the Society of Toxicology (2006-2007); President of the Genetic and Environmental Toxicology Association of Northern California (1995); member of the Society of Toxicology; charter member of the Society for Risk Analysis.





International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011



Professor Andreas Andreadakis

Special Secretary for Water
Ministry of Environment, Energy and Climate Change
School of Civil Engineering,
National Technical University of Athens

Highlights of Prof. Andreadakis's Professional Career

Andreas Andreadakis, Professor at the National Technical University of Athens (NTUA), is the past Chairman of the Department of Water Resources and Environmental Engineering, Director of the NTUA Postgraduate Program "Water Resources Science and Technology" and since 1997 the Director of the Sanitary Engineering Laboratory (SEL) at NTUA. Since November 2009 he is the Special Secretary for Water in the Ministry of Environment, Energy and Climate Change.

He received his degree in Civil Engineering from NTUA in 1973, his MSc in Environmental Control Engineering and Resources Utilization, from the University of Strathclyde, Glasgow, U.K. (1975) and his PhD in Civil Engineering (Environmental Science and Technology) from the same University (1978). He is the author of 250 refereed articles in professional Journals and International Conference Proceedings, 30 contributed chapters in 14 books, 5 books and more than 80 research reports.

Andreas Andreadakis is a member of the Governing Board of IWA, served as a member of the Scientific and Technical Committee of IWA (1996-1999) and was the Chairman of the IWA Specialist Group on Pre-treatment

(1996-2006). He served as a member of the Standing Committee on Environment of the Technical Chamber of Greece during the period 1991-2001.

He has been engaged in more than 60 sponsored research projects (in most as scientific responsible) dealing mainly with water, wastewater, sludge and solid wastes treatment, disposal and reuse, water quality assessment and modelling and water resources management. Since 1980 A. Andreadakis has been involved in more than 150 consultancy projects related to the design of water and sewage treatment plants, solid waste and sludge management, water resources management and environmental issues in various cities in Greece. He has represented Greece as an expert to the Strategic Coordination Group for the implementation of the Water Framework Directive and other European Union Committees, responsible for water and environment related Directives. He was advisor to the Ministry of Environment, Planning and Public Works on Environmental issues during the Greek Presidency of the EU (2003). As an expert he has prepared several reports for the WHO.





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SOLIDARITY

International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011



Dr. Nathalie ARNICH

ANSES

French Agency for Food, Environmental and Occupational Health Safety –
Physico-Chemical Risk Assessment Unit

Highlights of Dr. Arnich's Professional Career

Dr. Arnich is a Toxicologist Ph.D. with experimental experience on the bioavailability and toxicity of lead (Pb) in rats. In 2003 she joined AFSSA (the French Agency for Food Safety), at the Food Safety Directorate, Physico-Chemical Risk Assessment Unit. AFSSA became ANSES on July 1st, 2010 (the French Agency for Food, Environmental and Occupational Health Safety).

Dr. Arnich is in charge of the scientific coordination of the expert panel on Food Contact Materials (since 2009), and previously of the expert panel on Contaminants in food (2003-2009). She works in collaboration with the Drinking Water Unit and was involved in the latest French Total Diet Study regarding risk assessment associated with inorganic compounds (Pb, Cd, Hg, Al, As, Sb, Sn, Cr, Ni, Co).

She was also involved in the dietary risk assessment for biocide residues in food (European Review Programme under Directive 98/8/CE) and was

member of 2 European working groups for the development of guidelines (2009-2010).

Her main contributions to AFSSA's assessments have dealt with:

- Bisphenol A
- Non dioxin-like polychlorinated biphenyls (NDL-PCBs)
- Polybrominated diphenyl ethers (PBDEs)
- Lipophilic marine biotoxins (*Dinophysis*, *Ostreopsis*)
- Chemical contaminants in shellfish
- Fipronil
- Health risks from non-compliance with drinking water parametric values.





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JANUARY/15/2011



Dr. Mitchell D. COHEN

Associate Professor

**Department of Environmental Medicine
Editor-in-Chief, Journal of Immunotoxicology**

New York University School of Medicine

Highlights of Dr. Cohen's Professional Career

Dr. Cohen has held numerous elected offices in the Immunotoxicology Specialty Section (IMTOX SS) of the Society of Toxicology (SOT), including those of Vice President and President; he is currently also Chair of the IMTOX SS International Exchange Committee.

The editor of a **major text** in **Immunotoxicology** and an author/co-author of over 80 refereed journal publications Dr. Cohen has studied the effects of chromium since 1989; his works have been utilized as standard references among the major studies employed by the EPA, the US Department of Health, and other regulatory agencies for deriving safety standards for chromium agents.

Dr. Cohen's research interests include:

- Role of physicochemical properties in governing immunotoxic potentials of inhaled metals in the lungs.
- Effects of World Trade Center dusts on pulmonary biology/immunology related to the increased incidence of chronic lung disorders.

- The effect of inhaled pollutant gas/metal-induced changes in altered iron homeostasis (AIH) on macrophage functionality.
- Development of molecular methods to isolate/characterize DNA-protein cross-links, AND to assess mutagenicity/carcinogenicity of nickel, chromium, and vanadium agents.
- Determination of in vitro mechanisms of enzyme inhibition by metals.





International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011



Dr. Adriana Debora HULLSMANN

Dr. Ir. KWR Watercycle Research Institute

- **Drinking Water and EU Legislation**
- **European Project Procurement and Project Management**
- **Management of European Water Cycle and Energy Network**

Highlights of Dr. Hullsmann's Professional Career

Dr. Adriana Hullsmann is an Environmental Engineer (MSc) specialised in drinking water supply and EU water legislation. She has an engineering degree from the University of Wageningen, the Netherlands. She has extensive experience with water quality studies and water quantity studies, as well as with design and operation of treatment plants for the production of potable water.

Mrs Hullsmann is an expert on national and international standards for the quality of water intended for human consumption. She has worked at university level, at water supply companies, at water research institutes and at private consulting companies. She worked in various countries, including Indonesia, Vietnam, Romania, Bulgaria, Ukraine, United Kingdom and Belgium. She has obtained a Ph.D. in Mathematics and Sciences from the University of Amsterdam.

Her most recent experience are five consecutive three year contracts providing technical and scientific support to DGENV of the European Commission, both during the preparation and adoption of the new Drinking Water

Directive and currently the implementation in the new Member States, the organisation of a European Seminar on the revision of the Drinking Water Directive and the Service Contract on the Standardised Reporting Directive, processing and interpretation of the three annual returns from the Member States. Through her international work she has connections with drinking water experts and regulators in all 27 Member States of the European Union, as well as in other countries both inside and outside Europe. Dr. Hullsmann was the project coordinator of Specific Support Action (FP6) setting up the Water Supply and Sanitation Platform WSSTP. She is now the coordinator of a large FP7 integrated project on adaptation of the water supply and sanitation sector to cope with climate change:

PREPARED-Enabling Change.

In March 2010 Adriana has been elected as Council Member of the City of Wageningen, the Netherlands; responsible for senior citizens, urban development and housing, sport matters, water issues and citizens participation.





Dr. John A. IZBICKI
Research Hydrologist
California Water Science Center

United States Geological Survey (USGS)

Highlights of Dr. Izbicki's Professional Career

Dr. Izbicki has worked for the U.S. Geological Survey for 30 years and also is an **Adjunct Professor** at **San Diego State University**. His primary research interest is **linking chemical, microbiological, and isotopic data to physical hydrologic processes**. The **past 20 years** have been spent working on natural and artificial recharge processes in the **Mojave Desert of California**, understanding **trace element occurrence in groundwater settings**, evaluating seawater intrusion and brine invasion in coastal California aquifers, and identification of sources of fecal bacteria in coastal environments. Dr. Izbicki holds **2 patents** for **collection of coupled well-bore flow and depth-dependent water-quality data from wells**.

Current projects include:

- Arsenic removal during artificial recharge through thick unsaturated zones
- Denitrification of septic discharges in thick unsaturated zones
- **Chromium and chromium isotopic composition at contamination sites in the Mojave Desert**
- Sources of fecal indicator bacteria near Malibu, California
- Use of chloride and oxygen isotopes to determine the source of natural and anthropogenic perchlorate, Rialto, California



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Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011



Margarita KARAVASILI, MSc
Special Secretary for the Environment and Energy Inspectorate

Ministry of Environment, Energy and Climate Change

Highlights of Ms. Karavasili's Professional Career

Ms. Margarita Karavasili holds a degree in Architecture and an MSc. in Physical and Urban Planning & Economy (University Paris IV, Sorbonne) and in Social Psychology (EHESS, Paris).

From 1979 until 2007, Ms. Karavasili was employed by the Ministry of the Environment, Physical Planning & Public Works, where she was involved in environmental affairs, regional, urban and housing policies. Her areas of focus included sustainable development, climate change, national energy policies, energy efficiency in buildings, bioclimatic architecture and sustainable construction.

In 2001 Ms. Karavasili was appointed Environmental Attaché to the country's Permanent Representation in the European Union. Moreover, she served as President of the Council Working Group for the Environment during Greece's Presidency (2003). From October 2003 until July 2005 she was appointed General Inspector for the Hellenic Environmental Inspectorate.

In parallel to her work at the ministry, Ms. Karavasili has been an active member of scientific and professional

associations and non-governmental organizations that relate to the environment and to political ecology. Furthermore, she has published a number of articles in scientific, technical and ecological reviews as well as to the daily press. She is the author of "Green Buildings for a Green World" (1999) and a co-author to four more books.

Since 1994 Ms. Karavasili has also been an active member of the Management Board of Evonymos Ecological Library and a scientific advisor to the International Work Programme for Architecture and Renewable Energy Sources of the International Architects Union (UIA-ARES). In November 2009 Ms. Karavasili was appointed Special Secretary for the Environment and Energy Inspectorate, which operates under the Ministry for the Environment, Energy and Climate Change.

Her main principles can be summarized as follows: "In partnership with the citizens, I strive to promote sustainable development as it adheres to the principles of political ecology, viewing the concept of environmental protection as a major driving force for the economy and for social cohesion".





International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011



Vassiliki KARAOU LI, MSc
Director, Directorate of Sanitary Engineering and Environmental Hygiene,
Ministry of Health and Social Solidarity

Highlights of Ms Karaouli's Professional Career

Vasiliki Karaouli has studied Civil Engineering at the National Technical University of Athens, and has made postgraduate studies in Environmental Protection with specialization in Sanitary Engineering at the Technical University of Lausanne (Ecole Polytechnique Federale de Lausanne) and in Environmental Protection and Occupational Health and Safety at Aachen University (Rheinisch-Westfälische Technische Hochschule - Aachen). She has also completed the National School of Public Administration studying issues of organization and management of Public Administration with a specialization on Health Systems and Services.

Since 2006 she is Director of the Directorate of Sanitary Engineering and Environmental Hygiene, Greek Ministry of Health and Social Solidarity. The Directorate covers the interface between environmental protection and the human health protection from environmental factors. Therefore, it plays a supervisory and consultative role towards local health authorities, it collects environmental data, prepares health-related environmental legislation, and collaborates with the Ministry of the Environment in various aspects of common interest to the ministries. Main responsibilities of the Directorate are:

- Drinking water quality - public network supply and bottled water including mineral water
- Wastewater disposal and protection of water sources
- Swimming water quality including swimming pools
- Control of major-accident hazards involving dangerous substances
- Impacts and protection of ionizing and non-ionizing radiation (mainly from medical equipment)
- Atmospheric pollution and impacts on human health
- Medical waste: treatment and management
- Noise management
- Solid waste management and soil protection

Ms Karaouli has represented the Directorate in numerous national committees, and has represented Greece in international and European workshops and committees organized by WHO and the European Union, respectively. She has also an active teaching career on subjects of water quality, water resources, and waste management and their impacts on public health.





International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011



Athena LINOS, MD, PhD, MPH

Professor of Epidemiology and Prevention of Environmental and Occupational
Diseases Department of Hygiene, Epidemiology and Medical Statistics

Medical School

National and Kapodistrian University of Athens

Highlights of Dr. Linos's Professional Career

Prof. Athena Linos studied Medicine at the University of Athens Medical School, and Public Health at Harvard School of Public Health, and trained at the Mayo Clinic Department of Epidemiology and Biostatistics for 3 years. She holds a PhD and Professorial degree from the University of Athens, Medical School in Epidemiology.

She has taught at the Mayo Medical School, the University of Minnesota, the Case Western Reserve University, and at the University of Athens (since 1982). She has been a visiting scientist/professor at the Mayo Medical School and the National Institutes of Health (NIH).

Prof. Linos activities include: Participation in Greek National Committees on public health and occupational health and safety; Vice President of the Greek Regulatory Agency for Medicines; President of the National Committee for Greek Diet; President of the Medicinal Products' Price Committee; President of the Institute of Preventive Medicine Environmental and Occupational Health, Prolepsis (since 1991).

Prof. Linos's work has focused on epidemiology and research methodology. She has researched chronic diseases (malignancies, rheumatoid arthritis, and endocrine disorders), and has worked in clinical research and pharmaco-epidemiology. She has participated in several environmental projects regarding cyclic hydrocarbons in seven European cities, the effect of water pipelines on public health, and the effect of pesticides on human health. She is currently the scientific coordinator of an observatory epidemiologic study in the Municipality of Oinofyta, Greece. Nutrition and obesity prevention have also been among her primary research interests.

Author and editor of many Greek and English textbooks on public health, Prof. Linos has also published extensively in international and Greek peer-reviewed journals, and has participated in numerous conferences. She is a member of several scientific associations and participates in many international networks for public health.





International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011



Dr. Panagiotis MITROPOULOS

President: Institute of Geology & Mineral Exploration (I.G.M.E.)

Professor of Geochemistry

Dept. of Geology & GeoEnvironment

National and Kapodistrian University of Athens

Highlights of Dr. Mitropoulos's Professional Career

Prof. Panagiotis Mitropoulos holds B.Sc. degrees in Natural Sciences & Geography and in Chemistry, a M.Sc. in Mineral Chemistry, and a Ph.D. in Geochemistry from the University of Birmingham. He has been a faculty of the Geology department at the National and Kapodistrian University of Athens since 1978. Since 1999 he has been a Professor of Geochemistry at the department of Geology and Geoenvironment, where in 2009 he became Director of the Economic Geology and Geochemistry section.

Dr. Mitropoulos became President of the Board of Directors, Institute of Geology and Mineral Exploration (IGME) in 2010. IGME was founded in 1952, and in its present form its main purpose is the study and research of the geological structure of Greece, the identification and assessment of mineral and energy raw materials of the country (except hydrocarbons), the research and exploitation of the groundwater resources, the natural disasters' risk assessment (landslides, and earthquakes), and the sustainable management of the environment. It is a Legal Entity of Private Law, supervised by the Ministry of Environment and is the official adviser of the State on geo-science issues, and on minerals, and energy raw material exploration and exploitation.

Dr. Mitropoulos has collaborated in various projects with faculty and researchers of, among others, the universities of Birmingham and Leicester, U.K.; the universities of Tokyo, Osaka and Fukuoka, Japan; and the Natural History Museum of London on the following topics.

- The geochemistry of major and trace elements, of Rare Earth Elements, and of radioactive and stable isotopes in magmatic, sedimentary and metamorphic rocks
- Environmental geochemistry and mineral chemistry
- The isotope geochemistry of volcanic gases, and the isotope geochemistry of geothermal fields' fluids
- The prediction of volcanic eruptions and earthquakes on the basis of temporal change of geochemical parameters





International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011



Christopher J. PORTIER, PhD

**Director, National Center for Environmental Health / Agency for Toxic
Substances and Disease Registry, Centers for Disease Control and Prevention**

Highlights of Dr. Portier's Professional Career

Christopher J. Portier, PhD, joined CDC in 2010 as the Director of the National Center for Environmental Health and Agency for Toxic Substances and Disease Registry. Dr. Portier came to CDC from the National Institute of Environmental Health Sciences (NIEHS), where he was the Senior Advisor to the Director and a Principal Investigator in environmental systems biology. Formerly, Dr. Portier was Associate Director of NIEHS, Director of the Environmental Toxicology Program at the NIEHS, and Associate Director of the National Toxicology Program.

Dr. Portier is an internationally recognized expert in the design, analysis, and interpretation of environmental health data. His research efforts include topics as cancer biology, risk assessment, climate change, bioinformatics, immunology, neurodevelopment, genetically modified foods, and genomics. From 2000 to 2006, he managed the NTP and developed a strategic initiative that is internationally recognized for its innovation. He has contributed to the development of cancer risk assessment guidelines for national and international agencies and has either directed or contributed significantly to numerous risk assessments. He led the U.S. evaluation of electromagnetic fields by national and international scientists, which was the first comprehensive review in this field. Dr. Portier directed efforts of the U.S. government to develop a collaborative research agenda

with Vietnam on the health effects of Agent Orange in that country. He has just directed a multiagency review of research needs for the health effects of climate change for the entire U.S. government. He has served as an advisor to the Finnish Academy of Sciences on the Centers of Excellence Research Program, as a member of World Health Organization/International Agency for Research on Cancer scientific committees, and as a reviewer for grants for the United States, the European Union, and many other grant-sponsoring organizations.

Dr. Portier received his B.Sc. degree (1977) in mathematics (summa cum laude) and his MS (1979) and PhD (1981) degrees in biostatistics. He has authored more than 150 peer-reviewed publications, 30 book chapters, and 40 technical reports. In the past 5 years, he has given more than 70 invited lectures, many of them at international meetings.

He has received numerous awards including the prestigious Spiegelman Award from the American Public Health Association and the Outstanding Practitioner of the Year Award from the International Society for Risk Analysis. He is a Fellow of the International Statistics Institute, the World Innovation Foundation, and the American Statistical Association.





Professor Allan T. STONE

Professor of Environmental and Aquatic Chemistry
Department of Geography and Environmental Engineering
G.W.C. Whiting School of Engineering

Johns Hopkins University

Highlights of Dr. Stone's Professional Career

Prof. Stone received his bachelor degree in Chemistry from the University of Maryland, College Park and Master's and Ph.D. degrees in Environmental Engineering Science from the California Institute of Technology.

His research group at Johns Hopkins designs and conducts experiments that elucidate environmentally important transformation pathways. Metal ion-organic reactions, reactions at mineral surfaces, and the effects of chemical speciation are emphasized. His interests include:

- The **properties and transformations of synthetic chemicals in environmental media.**
- Natural biogeochemical processes, such as the acquisition of nutrients by plants, fungi, and bacteria and their role **onto the geochemistry of soils.**
- Inorganic species affecting water quality, e.g. disinfection by-product formation.
- The **consequences of human activities** regarding chemicals used in agriculture, forestry, aquaculture, and animal production on aquifers

and other media, and the corresponding **health effects and exposure.**

- Appraising the **consequences** of past disposal practices, and devising **management options.**

Dr. Stone is the author of chapters related to topics on the **fate of chemicals in the environment** and their **effect on ecosystem health**, in **over 12 books**. He is the author of over 50 refereed journal publications.

Prof. Stone participates in activities that foster environmental chemistry education and research in other countries, e.g. the V Congreso Iberoamericano de Física y Química Ambiental, in Mar del Plata, Argentina. He has been a guest professor at the University of Karlsruhe, Germany.



International
Experts Workshop
**HEXAVALENT CHROMIUM
IN DRINKING WATER**
JANUARY/15/2011



Kurt STRAIF, MD MPH PhD

**Acting Head IARC Monographs
International Agency for Research on Cancer
World Health Organization**

Highlights of Dr. Straif's Professional Career

Dr. Straif, is Acting Head of the section of the IARC Monographs of the International Agency for Research on Cancer, World Health Organization, Lyon, France. His research focus is on occupational and environmental risk factors for cancer. He serves on several national and international committees charged with primary and secondary prevention of cancer. He has a long record of teaching medical students, physicians and public health scientists at several universities and post-graduate courses; he served as the scientific director of the IARC International Summer School on Cancer Epidemiology, 2010.

He studied medicine at the Universities of Liège, Heidelberg and Bonn (1976-84) and philosophy (with a focus on the theory of science) at the University of Bonn. He is Board-certified in Internal Medicine and Occupational, Environmental and Social Medicine. He received his MPH and PhD in Epidemiology at the School of Public Health, University of California at Los Angeles.

From 1984-90 he was a Resident and Research Fellow at the Department of Internal Medicine, University of Bonn; in 1991, Visiting Scientist at the Department of Environmental Sciences at the School of Public Health, Columbia University, New York.

From 1991-95, he was a Research Fellow and Assistant Professor at the Institute of Occupational and Social Medicine at the School of Medicine, University of Giessen. From 1995-2001 he has been an Assistant and Associate Professor, Head of the Unit of Cancer and Occupational Epidemiology, Institute of Epidemiology and Social Medicine, University of Münster.





Dr. Dimitrios TRICHOPOULOS, MD, PhD
Vincent L. Gregory Professor of Cancer Prevention
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Highlights of Dr. Trichopoulos's Professional Career

Dimitrios Trichopoulos, MD, PhD has served as Professor and Chairman of the Department of Hygiene and Epidemiology, University of Athens Medical School; Chairman of the Department of Epidemiology, Harvard School of Public Health, and Director of the Harvard Center for Cancer Prevention. In addition to his current affiliation at Harvard University he is also Adjunct Professor of Medical Epidemiology at Karolinska Institutet, Sweden, and a Regular Member of the Athens Academy.

Distinctions include: Officier de l'Ordre des Palmes Académiques, France; Corresponding Member of the National Academy of Medicine (France) and the Royal Academy of Medicine (Belgium); Honorary Doctor of Medicine, University of Uppsala (1994); Smoke-Free America Award (1996); Commander of Honor of the Greek Republic (1996); Distinguished Physician, Hellenic Medical Society of New York (1999); Brinker International Award for Breast Cancer Research (2000); Julius Richmond Award for demonstrating the association of passive smoking with lung cancer (2004); Medal of Honour, International Agency for Research on Cancer - WHO (2007); Honorary Fellow, Royal College of Physicians, London, UK (2008).

Dimitrios Trichopoulos has authored or co-authored over 1000 publications, of which more than 700 are listed in international databases. He has done extensive work concerning **breast cancer etiology**, mainly focusing on the early life origins of this disease. He has published the **original paper** implicating **passive smoking** in the causation of **lung cancer**. He has contributed to the etiology of **hepatocellular carcinoma**, the quantification of the **association** between **psychological stress** and **coronary heart disease** and the identification of several **dietary** and **other risk factors** in the etiology of a number of **cancers** and **other diseases**.