

National and Kapodistrian University of Athens

SCHOOL OF MEDICINE

MASTER PROGRAM: "Environment and Health. Capacity building for decision making" Director: Assoc. Prof. P. Nicolopoulou-Stamati

"FROM ASBESTOS TO NANOTECHNOLOGY" 12 May 2011, Auditorium "Ioannis Drakopoulos" Panepistimiou 30 Athens, Greece

Asbestos is a naturally- occurring fibrous mineral that has been widely used the last century for industrial construction in many forms. Asbestos is known to cause serious lung disease Asbestosis and fatal neoplasia Mesothelioma. Even though Asbestos has been commercially banned in many countries, it is still considered as health threat.

Nanotechnology is a new revolutionary technology; its nature might cause serious health problems. Our experience from asbestosis is that if small particles enter the body may cause inflammation and granulomas. New developments in nanotechnology possibly present health hazards similar to those caused by asbestos. Nanoparticulates potentially can reach the brain as it has been observed in fish, but still very little is known about the potential health hazards associated with nanotechnology.

This workshop organized in the frame of the MSc "Environment and Health. Capacity building for decision making" **aims at answering the question: What do Nanotechnology and Asbestos have in common**? How much do we know the health effects of nanotubes? And to explore how our experience from Asbestos, plus the frame provided by the Precautionary Principle can be proactive if implemented in Nanotechnology.

WORKSHOP SCHEDULE

Confirmation of registration & Coffee
Welcome by Assoc. Prof. P. Nicolopoulou-Stamati
Official Opening by the Rector of Athens University Prof. Th. Pelegrinis
Prof. Qamar Rahman: "Asbestos Health Effects. Carbon Nanotubes future challenges"
Prof. Kai Savolainen and Dr. Olli Laine: "Nanotechnology: Health Effects"
Dr. Antonietta Gatti: "The physical-chemical toxicity of Asbestos and nanoparticles"
Prof. Nuzhat Husain "Environmental Pathology and nanotechnology: role in the
diagnosis of asbestosis to malignancy"
Dr. Dominique Dassonville: "Legal aspects of protection based on the Precaution Principle"
Lunch brake
David Gee: "How do Late Lessons on Asbestos relate to Early Warnings on Nano?"
Prof. Luc Hens: "Critical issues on health impact assessment of carbon nanotubes"
Prof. Nicholas Askounes Ashford:
"Can experience from Asbestos regulation be useful in handling Nanotechnology"
Discussion chaired Assoc. Prof. P. Nicolopoulou-Stamati and Dr. Annie Sasco

INVITED SPEAKERS

Prof. Qamar Rahman, PhD, FNASC

<u>qamar_15@sify.com</u> Currently Prof. Qamar Rahman is Professor & Dean Research & Development, Amity University, Lucknow India

She has served as: In charge of Fiber Toxicology Division, and Area leader of Inhalation Toxicology & Human Health Risk Assessment, & Deputy Director of TRC, Lucknow Adjunct Professor: Hamdard University, Delhi 2

Visiting Professor, Rostock University, Germany since 2000.

 Industrial Toxicology Research Centre (ITRC) of Council of Scientific & Industrial Research (CSIR) Post Box - 80, Mahatma Gandhi Marg, Lucknow - 226 001 India (U.P.) Tel. 91-522-2627586, Fax: 91-522-2628227, Mobile: 91-9335229466

Prof. Kai Savolainen

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Currently Kai Savolainen is Research Professor and Director of the Nanosafety Research Centre of the Finnish Institute of Occupational Health. Earlier, he has been Professor and Chairman of the Department of Pharmacology and Toxicology at the University of Kuopio. He has lead several research consortia with a focus on the safety of engineered nanoparticles. He has also served as the President of the International Union of Toxicology 2007-10.

• Work environment Development, Finnish Institute of Occupational Health

Dr. Olli Laine

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Current position: Senior scientist PhD, Finnish Institute of Occupational Health, since 2009.

Education: PhD (organic chemistry), University of Joensuu, Finland, 2002

MSc (organic chemistry), University of Joensuu, Finland, 1997

Previous positions:

Postdoctoral scientist, University of Helsinki, Finland, 2009

Researcher, National Public Health Institute/National Institute for Health and Welfare, Finland, 2008-2009

Visiting research associate, University of Maryland, USA, 2006-2007

Chemist, National Public Health Institute, Finland, 2002-2006

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Dr. Antonietta Gatti

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Visiting Professor of the Institute for Advanced Sciences Convergence (DoD, USA)
Coordinator of the Italian Institute of Technology's Project of Nanoecotoxicology called INESE
Selected expert of the FAO/WHO for the safety in nanotechnological food
Member of the NANOSAFETY Cluster of the European Commission
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Prof. Nuzhat Husain

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Currently **Prof. Nuzhat Husain** MD is Professor and Head, Dept of Pathology at Dr Ram Manohar Lohia Institute of Medical Sciences, Lucknow, India. She has served as: Consultant Pathologist, Fatima Hospital, Lucknow Lecturer, Dept. of Pathology, King George Medical College Post doctoral Fellow, Molecular Neuro-oncology Unit, Massachusetts General Hospital, Harvard University, Boston MA USA Assistant Professor, Dept. of Pathology, King George Medical College, Associate Professor, Dept. of Pathology, K.G.Medical College, Lucknow Professor, Dept of Pathology, Upgraded K G Medical College, CSM Medical University

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Dr. Dominique Dassonville

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Currently Dr. Dominique Dassonville is adviser at the legal department of the Senate of Belgium and more specifically to the section "legislation assessment". Before joining the Senate in 2000, she was working as a lawyer at the Brussels bar, after having specialised in business law and European law. An important part of her current work consists in giving critical advice on bills that are discussed in the committees on Justice and Social Affairs of the Senate (ex ante evaluation). Beside civil and criminal law, she focuses her professional interest mainly on ethical, bioethical or public health issues. Another important aspect of her work is comparative legal research.

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David Gee

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David was educated in politics and economics and has worked for 36 years at the science/policy interface of occupational and environmental risk assessment & reduction, with UK Trade Unions: with the Environmental Group, Friends of the Earth, where he was Director; and, since December 1995, with the European Environment Agency, an EU environmental information providing body in Copenhagen, where he is Senior Adviser, Science, Policy, Emerging Issues, in the Integrated Environmental Assessment Programme.

He has published reports and peer reviewed articles and lectured on several issues, including *Scientific Uncertainty; the Precautionary Principle; Environmental Health; Environmental Taxes and Ecological Tax Reform; Clean production, Eco-efficiency; Endocrine disrupting chemicals; and Electromagenetic fields.*

He is initiator, co-editor and contributor to the widely cited and used EEA report, "*Late Lessons from Early Warnings: the Precautionary Principle 1896-2000*" (2001) which is now going into vol 2 & 3 (2011/12).

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Prof. Luc Hens

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Currently senior scientist in VITO. Luc Hens graduated as a Biologist and later received his PhD. in Biology from the Vrije Universiteit Brussel (Belgium) where he serves as Professor and Head of the Human Ecology Department. Among his other activities he also lectures at the Technical University of Sofia (Bulgaria) and at the MSc of the National & Kapodistrian University of Athens "Environment and Health. Capacity building for decision making". His specific area of research concerns the elucidation of interdisciplinary instruments for Sustainable development. Professor Hens acts as an expert on environmental policy in several advisory councils in Belgium.

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Prof. Nicholas Askounes Ashford

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Currently Professor of Technology and Policy at the Massachusetts Institute of Technology teaching Environmental Law and Policy; Technology, Law and Public Policy; and Sustainability, Trade and Environment. Faculty Associate of the Environmental Policy Group in the Urban Studies Department and holds an adjunct faculty position at the Harvard University School of Public Health.Chairman and public member of the National Advisory Committee on Occupational Safety & Health. Advisor to the United Nations Environment Programme. His research interests include improvements in health, safety and environmental quality; pollution prevention and cleaner/inherently safer production; the consequences of low-level exposure to chemicals; sustainability, trade and environment; and environmental justice. He has developed methodologies for decision-making in the regulation of chemicals and his research activities include work for the United Nations Environment Programme, the OECD, and the European Union.

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Dr. Annie Sasco

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Dr. Annie Sasco, president of HealthCam, is a medical doctor and internationally known epidemiologist. She has dedicated her entire career to the unique study of cancer in a globalized environment. For many years she directed a research unit in the International Research on Cancer -World Health Organization in Lyon - and today she manages the Team of Epidemiologists for Cancer Prevention (team on HIV, cancer and global health in Africa Inserm U 593) within the Institute of Public Health, Epidemiology and Development in Bordeaux. She is prominently involved in improving health in low-income countries, primarily in Africa. Her lifelong fights have been led courageously and she has defended the cause of public health against all mercantile interests. Her various interests reflect a humanistic approach to life and preventive approach in medicine. She is especially dedicated to women's health, but struggles also for peace, ecology and feminism. In 2005, she was nominated among the 1000 women for the Nobel Peace Prize. Annie J. Sasco, MD. Dr. PhD

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CO-ORDINATOR

Assoc. Prof. Polyxeni Nicolopoulou-Stamati

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Currently Assoc. Prof. Polyxeni Nicolopoulou-Stamati, M.D. PhD. Pathologist, is teaching Environmental Pathology at the Medical School of National and Kapodistrian University of Athens. She is experienced in organizing seminars, intensive courses and congresses, in building medical curricula, in coordinating European Projects. Invited professor at the VUB, teaching at the master program and postgraduate Diploma in Human Ecology. Expert at the European Commission. Organized and coordinates since 2004 the 2-year Master Program of the Medical School of National and Kapodistrian University of Athens entitled: "Environment and Health: Capacity Building for Decision Making". Member of the board HCWH –Europe.

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