



**ΕΘΝΙΚΟ & ΚΑΠΟΔΙΣΤΡΙΑΚΟ**  
**ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ**  
**NATIONAL & KAPODISTRIAN**  
**UNIVERSITY OF ATHENS**  
**SCHOOL OF MEDICINE**

**MSc: “Environment and Health. Capacity building for decision making”**

**“Re-inventing higher education via thinking beyond the box  
A trans-disciplinary approach and implications for theory, policy and practice”**

**Tuesday 25/11/2014, 17.00-21.30**  
**Kostis Palamas Building, Akadimias 48 & Sina, Athens**

The Workshop intends to explore the evolving need for developing new trends in higher education. As it is well recognized, higher education is expected to go beyond knowledge transfer and knowledge management. It is expected to develop cognitive skills that will ensure social cohesion based on humanitarian values that will influence society’s quality and well-being. Higher education is asked to provide the tools for developing ability for decision making in a complex world. Explicit peer reviewed knowledge has been the baseline for Higher Education curricula until recognition of its limitations leads to a changing context introducing tacit knowledge with new aspects “beyond the box”.

<b>17.00-17.30</b>	Registrations
<b>17.30-18.00</b>	Welcome and Introduction: <b>Higher Education: Enhancing Quality</b> Prof. P. Nicolopoulou-Stamati, University of Athens Medical School
<b>18.00-18.30</b>	<b>Thinking BEYOND the box:</b> <b>Innovation and trans-disciplinarity as growth engines</b> Prof. Elias Carayannis, George Washington University School of Business
<b>18.30-19.00</b>	<b>Trends in the development of the research system</b> Prof. Hans Siggaard Jensen, Aarhus University
<b>19.00-19.30</b>	<b>Sustainability: Multidisciplinary approach, an added value</b> Prof. Luc Hens, Flemish Institute for Technological Research
<b>19.30-20.00</b>	<b>Is medical education evolving?</b> Prof. George Chrousos, University of Athens Medical School
<b>20.00-20.30</b>	<b>The need to establish multidisciplinary approach</b> David Gee, Associate Fellow, Institute of Environment, Health and Societies, Brunel University
<b>20.30-21.30</b>	Discussion

## ***Background information***

Higher education (HE) has been for a long period of years, at least in Europe, a broad spectrum exercise that would give the opportunity to the graduate to move liberally after his studies to any field he would choose, help him implement his knowledge in a specific profession for example as a lawyer, an engineer, a chemist, or would orient him to move to research and lecturing in higher education.

In all possible circumstances the holder of a higher education university degree had the capacity to move and choose liberally his field of interest in the context of his first choice and not only.

The background of HE curricula was broad and deep and was called by the French “*études a profondu*”.

However in the early nineties there was a shift mainly introduced by UK to a rather shorter and condensed type of curricula that were targeting at providing to the student facts mainly rather than the theoretical approach to critical thinking and development of capacity building for decision making. The mass use of the internet had also contributed to this switch.

The bachelor for 3 year long have built curricula just to set the scene of the subjects to be taught in a “briefing” style and type, while the masters again in 1 / 2 or maximum 3 years give a broader spectrum of knowledge but always limited in depth, simply because the structure does not permit other options.

And then the argument perhaps is that, an option of a PhD exists. The question is how many graduates will move to PhD and if they do, how much time do they need to adjust to the research environment that is already set in the laboratory of university department that they will be attached to. The PhD candidates will nest in an already oriented environment that they will “swim” taken by the tide that the settlement they are admitted to, has already structured.

How many possibilities for opening a totally new scientific road, can the concrete educational space provide to the student, graduate or PhD candidate?

As the current structure is foreseen by the Treaty of Bologna (19/6/1999) it leads to a narrow space, mostly virtual, that lacks the possibility for providing new options and opening wider paths to perhaps unknown and not yet defined subjects, there is an urgent need for restructuring and opening of higher education flexible curricula.

Do we think and believe that current research has clarified all existing scientific questions? Are there any new fields of research to be opened? And if there are, where are the “educated” candidates for opening them?

The truth is that we have not yet seen the outcome but the tide of the “new” HE bachelors and then master holders is coming.

The complexity of life, the massive production of chemical substances, the mobility but also the calamities of the world have set the stage of new problems to be solved and to be furnished by scientific solutions requesting crucial decision making on a global scale. Current problems related to health, the major interest of human beings and society are underestimated and left unaddressed.

Scientists are requested to answer questions that policy makers are not able to handle. Furthermore, they are asked for advice identifying the need to change legislation, being engineers, chemists, biologists, medical doctors mostly for global issues with the example of climate change.

A new aspect in scientific methodology is evolving. Scientific issues in order to be addressed need more than one discipline. A very clear example demonstrating clearly the issue is the large spectrum of environmental health that has evolved the last 20 years. Scientists more and often are requested to answer questions that need the knowledge and skills of more than one discipline but also for the capacity to handle knowledge out of the spectrum that they have originally been trained to do. Multidisciplinary inter- and trans-disciplinarily approaches with flexible curricula is urgently needed to be implemented in the HE curricula complemented with tacit knowledge, in order to open paths to innovative research and development.

## **KEY ORGANIZERS**

### **Prof. P. Nicolopoulou-Stamati**

Prof. P. Nicolopoulou-Stamati is a Qualified Pathologist – Cytopathologist. She has introduced Environmental Pathology at the Medical School of the University of Athens. She has lectured at the Faculty of Medicine and Pharmacy of VUB University of Brussels on the block of Environmental Health (1997-2009). She organized, implemented and directed (2004-2014) 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”. She is engaged in Research and Medical Practice and is experienced in organizing seminars, intensive courses and congresses, in building medical curricula, in coordinating European projects. Dr. Nicolopoulou is an expert at the European Commission on Environmental Health, engaged in science policy interface, a consultant in Public and Private Sector, a member of the board HCWH –Europe and a member of IPPNW, Nobel Peace Prize Awarded in 1985.

### **Prof. Elias G. Carayannis**

Dr. Elias G. Carayannis is Full Professor of Science, Technology, Innovation and Entrepreneurship at the School of Business of George Washington University. He is also co-Founder and co-Director of the Global and Entrepreneurial Finance Research Institute (GEFRI) and Director of Research on Science, Technology, Innovation and Entrepreneurship, European Union Research Center, (EURC) at GWU. He has consulted for a wide variety technology driven organisations in both government and the private sector, including the World Bank, the European Commission, the Inter-American Development Bank, the US Agency for International Development, IKED, the National Science Foundation Small Business Innovation Research Program, the National Institute of Standards and Technology Advanced Technology Program, the National Coalition for Advanced Manufacturing (NACFAM), the USN CNO Office, Sandia National Laboratories’ New Technological Ventures Initiative, the General Electric Corporate Training & Development Center, Cowen & Co, First Albany International and others.

## **INVITED SPEAKERS**

### **Prof. Hans Siggaard Jensen**

Dr. Hans Siggaard Jensen is Full Professor in Philosophy of Science at the Aarhus University in Denmark. He is visiting professor at ESADE Business School in Barcelona and at the North-Trondelag University College in Norway. He was educated in philosophy, mathematics and psychology at the University of Copenhagen and the University of California, Los Angeles. He has held positions teaching philosophy of science and research methodology in medicine, engineering, computer science, psychology, business economics and education. He has been active in research councils and research policy as president of the Nordic Academy for Advanced Studies, member of the Danish Research Commission, president of the European Doctoral Programs Association in Management and Business Administration, chairman of the Committee on Innovation and Creativity of the Danish Strategic Research Council. He has served as Research Director, Dean and Vice-Dean for strategy at Danish universities. He has been chairman and is on the board of several Danish IT-companies in the area of artificial intelligence.

### **Prof. Luc Hens**

Currently senior scientist in VITO. Luc Hens is a Biologist and he has received his PhD in Biology from the Vrije Universiteit Brussel (Belgium) where he served 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.

## **Prof. George Chrousos**

George P. Chrousos is professor and chairman of the Department of Pediatrics at the Athens University Medical School. He was previously Senior Investigator, Director of the Pediatric Endocrinology Section and Training Program, and Chief of the Pediatric and Reproductive Endocrinology Branch of the National Institute of Child Health and Human Development (NICHD), National Institutes of Health (NIH). He is also Clinical Professor of Pediatrics, Physiology and Biophysics at Georgetown University Medical School and Distinguished Visiting Scientist, NICHD, NIH. Dr. Chrousos was the first General Director of the Foundation of Biomedical Research of the Academy of Athens (2001–2002). He holds the UNESCO Chair on Adolescent Health Care and held the John Kluge Chair in Technology and Society, Library of Congress, Washington, D.C.

## **David Gee**

David was educated in politics and economics at York University (1965-68) and has worked for over 40 years at the science/policy interface of occupational, public, and environmental risk assessment & reduction, with UK Trade Unions; with the UK Environmental Group, Friends of the Earth, where he was Director; and, from December 1995 to May 2013, with the European Environment Agency, an EU environmental information providing body in Copenhagen, where he was Senior Adviser, Science, Policy, Emerging Issues. He has published reports and peer reviewed articles and lectured on Scientific Uncertainty; the Precautionary Principle; Environmental Health; Environmental Taxes and Ecological Tax Reform; Clean production; Eco-efficiency; Endocrine disrupting chemicals; Electro-magnetic fields; Evaluating evidence; and anticipatory research. He is initiator, co-editor and contributor to the widely cited and used EEA reports, “Late Lessons from Early Warnings: the Precautionary Principle 1898-2000” (2001), and “Late Lessons from Early Warnings: Science, Precaution, Innovation” (EEA, 2013). He is now a Visiting Fellow at the new Institute of Environment, Health, and Societies, at Brunel University, London.