

**GeNeDis**

Geriatrics & Neurodegenerative Disease

# 1<sup>st</sup> World Congress on Geriatrics & Neurodegenerative Diseases Research

**10-13** | April 2014 | Corfu, Greece

**Organizers**



Neuroinformatics and Human  
Deciphering Laboratory



Computational  
Modeling Laboratory  
Department of Informatics



SCIENCE  
VIEW



Hellenic  
Open University



University of Ioannina,  
Department of Informatics,  
University of Local Authorities,  
Second Mechanism



National Research,  
Training and  
New Technologies



Region of Ionian Islands

**GeNeDis 2014 Congress falls under the auspices of:**



MINISTRY OF HEALTH



Hellenic Pharmaceutical  
Society (H.P.S.)  
member of ISPPPS



Hellenic  
Medical Association



National Hellenic  
Research Foundation



Hellenic  
Medical Society



Hellenic  
Medical Association



Hellenic  
Psychiatric Association

**Supporting Institutions/Sponsors:**



Alzheimer's Disease &  
Related Disorders



Hellenic Society of  
Gerontology and Geriatrics



More info: [www.genedis.eu](http://www.genedis.eu)

Contact: [info@genedis.eu](mailto:info@genedis.eu)

Official Proceedings Publisher:

Springer - Series:  
Advances in Experimental Medicine  
and Biology (AEMB)

GeNeDis 2014 Conference, Corfu, Greece, 10-13 April

Keynote Lectures	KL
Geriatrics Sessions	G
Neurodegeneration Sessions	ND
Computational Biology & Bioinformatics Sessions	CBB
Workshops & Special Sessions	W
Roundtables - Tutorial	RT

## THURSDAY, April 10, 2014

11:00- 16:00	Registration
16:00 - 17:00	<p><b>Opening Ceremonies (Ionian Academy)</b>  Welcome Message from the President of the Scientific Committee  Associate Professor Panayiotis Vlamos  Message from the Commissioner for Research &amp; Innovation, Ms. Marie Geoghegan-Quinn  Greek Deputy Minister of Health, Ms. Zetta Makri  Head of the Region of Ionian Islands, Mr. Spiros Spirou  Mayor of Corfu, Mr. Yannis Trepeklis  Rector of the Ionian University, Professor Anastasia Sali-Papasali  Welcome Messages from Scientific Associations and Supporters</p>
17:00 - 18:00	<p><b>Key Note Address (Ionian Academy)</b>  <i>Chair: Vassilios Chrissikopoulos</i>  <b>Professor Nikolaos Robakis</b>, Professor of Psychiatry, Neuroscience and experimental therapeutics. First A.P. Slaner Professor for Alzheimer disease research. Mount Sinai School of Medicine, NYU, USA  Title: <b>Molecular neuropathology of Alzheimer dementia and therapeutic approaches</b></p>
18:00 - 19:00	<p><b>Key Note Address (Ionian Academy)</b>  <i>Chair: Vassilios Chrissikopoulos</i>  <b>Professor George Paxinos</b>, AO DSc FASSA FAA NHMRC Australia Fellow, Neuroscience Research Australia, Barker St and Hospital Rd, Randwick, Sydney, Australia  Title: <b>Brain, Behaviour and Evolution</b></p>
19:00 - 19:45	Neuroscience Opera
20:00	Welcome Cocktail

# Conference Program

FRIDAY, April 11, 2014

10:00 - 11:00	<p align="center"><b>Ionian University - Department of Informatics (Aretaios Building)</b>  <b>Official Opening of the Bioinformatics and Human Electrophysiology Laboratory</b></p>		
11:00 - 12:00	<p align="center"><b>Keynote Address (Grand Ballroom Corfu Holiday Palace)</b>  <b>Chair: Panteleimon Giannakopoulos</b></p> <p><b>Professor Vasilis Ntziachristos, Chair Institute for biological and medical imaging (IBMI) Technische Universität München, Germany</b>  <b>Title: Biomedical optics and optoacoustics as a model for scientific discovery and economic growth</b></p>		
12:00 - 13:00	<p align="center"><b>Keynote Address (Grand Ballroom Corfu Holiday Palace)</b>  <b>Chair: Dimitrios Fotiadis</b></p> <p><b>Dr. Akihito Takashima, Department of Aging Neurobiology, National Center for Geriatrics and Gerontology, Japan</b>  <b>Title: Toxic tau aggregation in AD</b></p>		
13:00 - 14:00	<p align="center"><b>Lunch Break</b></p>		
14:00 - 15:40	<p align="center"><b>G1</b>  <b>Chair: Ghulam Ashraf</b>  <b>Room A - Lefkas</b></p>	<p align="center"><b>CBB1</b>  <b>Chair: Lionel Milgrom</b>  <b>Room B - Ithaka</b></p>	<p align="center"><b>W: Parkinson's Disease</b>  <b>Chair: John Haranas</b>  <b>Grand Ballroom</b></p>
14:00 - 14:20	<p><b>Findings Regarding the Relationships between Socio-Demographic, Psychological, Comorbidity Factors and Functional Status, in Geriatric Inpatients</b>  <i>Ana Capisizu, Sorina Aurelian, Andreea Zamfirescu, Ioana Omer, Monica Haras, Camelia Ciobotaru, Liliana Onose, Tiberiu Spiricu and Gelu Onose</i></p>	<p><b>A Cloud-based Data Network Approach for Translational Cancer Research</b>  <i>Wei Xing, Dimitrios Tsoumakos and Moustafa Ghanem</i></p>	<p><b>Modeling Neural Circuits in Parkinson's Disease</b>  <i>Psiha Maria and Panayiotis Vlamos</i></p>
14:20 - 14:40	<p><b>Deprescribing Psychotropic Medications in Aged Care Facilities: The Potential Role of Family Members</b>  <i>Chris Plakiotis, J Simon Bell, Yun-Hee Jeon, Dimity Pond and Daniel W O'Connor</i></p>	<p><b>Chaotic Attractors in Tumor Growth and Decay</b>  <i>Michael Harney and Wendy Yim</i></p>	<p><b>Towards an Expert System for Accurate Diagnosis and Progress Monitoring of Parkinson's disease</b>  <i>Athanasios Alexiou, Maria Psiha and Panayiotis Vlamos</i></p>

# Conference Program

14:40 - 15:00	<p><b>The Role of Chemical Engineering in Medicinal Research including Alzheimer's Disease</b> <i>Georgios Kontogeorgis</i></p>	<p><b>Exploiting Expert Systems in Cardiology: A Comparative Study</b> <i>George - Peter Economou, Efrosini Sourla, Konstantina - Maria Stamatopoulou, Vasileios Syrimpeis, Spyros Sioutas, Athanasios Tsakalidis and Giannis Tzimas</i></p>	<p><b>Neuropathology of parkinsonism in Alzheimer's disease</b> <i>Eniko Kovari, Constantin Bouras, François R. Herrmann, Pierre R. Burkhard, Judit Horvath and Aikaterini Xekardaki</i></p>
15:00 - 15:20	<p><b>The Quantum Human Central Neural System</b> <i>Athanasios Alexiou and John Rekkas</i></p>	<p><b>Exploring the online satisfaction gap of medical doctors: An expectations-confirmation investigation of information needs</b> <i>Panos Kourouthanassis, Patrick Mikalef, Margarita Ioannidou and Adamantia Pateli</i></p>	<p><b>Kinesia Paradoxa: a challenging Parkinson's phenomenon for simulation</b> <i>Irene Banou</i></p>
15:20 - 15:40	<p><b>On the comparison of a novel serious game and electroencephalography biomarkers for early dementia screening</b> <i>Ioannis Tarnanas, Nikos Laskaris, Magda Tsolaki, Tobias Nef, Rene Mueri and Urs Mosimann</i></p>	<p><b>On the Determinants of Obesity: Evidence from the UAE</b> <i>Marina-Selini Katsaiti and Amany El Anshasy</i></p>	<p><b>Towards the development of a device to improve the gait of patients suffering from Parkinson's disease</b> <i>Nikos Tsotsolas</i></p>
15:40 - 16:00	<b>Coffee Break</b>		
16:00 - 17:00	<p style="text-align: center;"><b>Keynote Address (Grand Ballroom Corfu Holiday Palace)</b> <i>Chair: Athanasios Alexiou</i></p> <p><b>Professor Dimitrios Fotiadis, Unit of Medical Technology and Intelligent Information Systems, University of Ioannina</b> <b>Title: A system for monitoring, assessment and management of patients with Parkinson's disease</b></p>		
17:00 - 18:00	<p style="text-align: center;"><b>Keynote Address (Grand Ballroom Corfu Holiday Palace)</b> <i>Chair: Athanasios Alexiou</i></p> <p><b>Professor Panteleimon Giannakopoulos, University of Lausanne, Department of Psychiatry University of Geneva School of Medicine, Switzerland</b> <b>Title: Mental health in a global world: moving from illness to individual vulnerability</b></p>		
18:00 - 19:20	<p style="text-align: center;"><b>N1</b> <i>Chair: Monica Haras</i></p>	<p style="text-align: center;"><b>RT: Young Generation of Scientists: Research and Innovation</b></p>	

# Conference Program

	Room A - Lefkas	Chair: Costas Demetzos Grand Ballroom
18:00 - 18:20	The influence of treatment on the clinical course of Multiple Sclerosis <i>Andrius Kavaliunas, Leszek Stawiarz, Jonas Hedbom, Anna Glaser and Jan Hillert</i>	The safety of biotechnological medicines for Rheumatoid Arthritis <i>Giannis Papadopoulos, Kostas Demetzos, Kyriakos Souliotis</i>
18:20 - 18:40	Pro-oxidant DNA breakage induced by the interaction of L-DOPA with Cu(II): a putative mechanism of neurotoxicity <i>Asma Perveen, Husain Khan, Sm Hadi, Shams Tabrez and Ghulam Ashraf</i>	Thermodynamics in Pharmaceutical Nanotechnology <i>Costas Demetzos and Natassa Pippa</i>
18:40 - 19:00	Superconductivity in Human Body; Myth or Necessity <i>Athanasios Alexiou and John Rekkas</i>	Nano-thermodynamics mediates drug delivery, <i>Aikaterina Stefi, Athanasia Bourkoula, Panagiota Petrou, Evangelia Sarantopoulou, Zoe Kollia, Nikolaos Spyropoulos - Antonakakis, Sotirios Kakabakos and Alkiviadis Constantinos Cefalas</i>
19:00 - 19:20	Huntington's Disease: Early Diagnosis <i>Cathrene Bobori</i>	The neurodegenerative potential of chronic stress: a link between depression and Alzheimer's disease <i>Ioannis Sotiropoulos</i>
19:30 - 20:30	<b>Keynote Address (Grand Ballroom Corfu Holiday Palace)</b> <b>Chair: Akihito Takashima</b> <b>Dr. Efstathios Gonos, Director of Research IUBMB, National Hellenic Research Foundation, Institute of Biology, Medicinal Chemistry and Biotechnology, Greece</b> <b>Title: Proteasome activation delays ageing and minimize deficiencies underlying neurodegenerative diseases</b>	
20:30	<b>Traditional Dancing Performance Offered by the Municipality of Corfu (Corfu Holiday Palace)</b>	
	<b>'Science in Art' Painting Exhibition - All Day Event (Corfu Holiday Palace)</b>	

# Conference Program

SATURDAY, April 12, 2014

9:00 - 10:00	<b>RT: Non-Pharmacological treatments of dementia. The encouraging results of SOCIABLE</b> <i>Chair: Paraskevi Sakka</i> Grand Ballroom		
9:00 - 09:20	<b>Brain reserve and cognitive training in the elderly</b> <i>Paraskevi Sakka</i>		
9:20 - 9:40	<b>Non-pharmacological treatments for people with dementia</b> <i>Eleni Margioti</i>		
9:40 - 10:00	<b>SOCIABLE: A surface computing platform empowering effective cognitive training for healthy and cognitively impaired elderly</b> <i>Eva Danassi</i>		
10:00 - 11:00	<b>Keynote Address (Grand Ballroom Corfu Holiday Palace)</b> <i>Chair: Panayiotis Vlamos</i> <b>Dr. Ioannis Haranas, VDG Research and Development in Electromagnetic Theory Applications, Department of Mathematics, East Carolina University, USA</b> <b>Title: Respiratory Particle Deposition Probability due to Sedimentation with Variable Gravity and Electrostatic Forces</b>		
11:00 - 12:00	<b>Keynote Address (Grand Ballroom Corfu Holiday Palace)</b> <i>Chair: Panayiotis Vlamos</i> <b>Professor Benjamin Wolozin, Department of Pharmacology Boston University Alzheimer's Disease Center, USA</b> <b>Title: Stress granules and Neurodegeneration: A new paradigm for mechanisms of Neurodegeneration</b>		
13:00 - 14:00	Lunch Break		
14:15 - 15:45	Visit at the Achilleion Palace Museum		
16:00 - 17:40	<b>G2</b> <i>Chair: Shams Tabrez</i> Room A - Lefkas	<b>CBB2</b> <i>Chair: Wei Xing</i> Grand Ballroom	<b>W: From Drug discovery to Drug delivery: advances and regulatory issues</b> <i>Chair: Anna Tsantili-Kakoulidou</i> Room B - Ithaka
16:00 - 16:20	<b>Decrease in amyloid deposition in aging brain - an autopsy study</b> <i>Gabriel Gold, François R. Herrmann, Constantin Bouras, Eniko Kovari and Aikaterini Xekardaki</i>	<b>A mathematical model for the blood plasma flow around two aggregated Low Density Lipoproteins</b> <i>Maria Hadjinicolaou</i>	<b>The impact of physicochemical and molecular properties in drug design. Navigation in the 'drug-like' chemical space,</b> <i>Theodosia Vallianatou, Costas Giaginis, Anna Tsantili-Kakoulidou</i>

16:20 - 16:40	<p>The effects of aging on normal sleep architecture in healthy subjects <i>George Dorffner, Martin Vitr and Peter Anderer</i></p>	<p>Management and Modeling of Balance Disorders using Decision Support Systems: The EMBALANCE project <i>Themis Exarchos, Christos Bellos, Iliana Bakola, Dimitris Kikidis, Athanasios Bibas, Dimitrios Koutsouris and Dimitrios Fotiadis</i></p>	<p>Advanced Drug Delivery nano Systems: perspectives and regulatory issues <i>Costas Demetzos</i></p>
16:40 - 17:00	<p>On the observed specific and non-specific effects of complex therapeutic interventions: truly separate or complementary? <i>Lionel Milgrom</i></p>	<p>Modeling k-noncrossing closed RNA Secondary Structures via Meandric Compression <i>Panayiotis Vlamos and Antonios Panayotopoulos</i></p>	<p>The fractal analysis as a complementary approach to predict the stability of Drug Delivery nano Systems (DDnSs) in aqueous and biological media: a regulatory proposal or a dream? <i>Costas Demetzos, Natassa Pippa</i></p>
17:00 - 17:20	<p>Artificial Humanoid for the Elderly People <i>Athanasios Alexiou, Panagiota Simou and Konstantinos Tiligadis</i></p>	<p>Translation of two aggregated Low Density Lipoproteins. A Mathematical model <i>Maria Hadjinicolaou and Eleftherios Protopapas</i></p>	<p>Bio-inspired chimeric Drug Delivery nano Systems (chi-DDnSs): their fractal hologram and regulatory aspects, <i>Natassa Pippa, Stergios Pispas and Costas Demetzos</i></p>
17:20 - 17:40	<p>The Vital Force 'reincarnated': modelling entelechy as a quantised spinning gyroscopic metaphor for integrated medicine <i>Lionel Milgrom</i></p>	<p>Modeling Protein Misfolding in Charcot Marie Tooth Disease <i>Georgia Theocharopoulou and Panayiotis Vlamos</i></p>	<p>The innovations in science and technology as a demand for bio-better medicines in Europe <i>Costas Demetzos</i></p>
17:40 - 18:00	Coffee Break		
18:00 - 19:00	<p><b>Keynote Address (Grand Ballroom Corfu Holiday Palace)</b> <b>Chair: Benjamin Wolozin</b> Professor Arno Villringer, Max Planck Institute for Human Cognitive and Brain Sciences, Germany Title: The path from obesity and hypertension to dementia</p>		

# Conference Program

19:00 - 20:00	<b>Training Seminar: Advanced Microscopy Technologies</b> Duration <i>Chairs: Vasileios Athanasakis, Nikolaos Tzouvelekis</i> Grand Ballroom
19:00 - 19:20	<b>1. Advanced microscopy for biological samples</b>
19:20 - 19:40	<b>2. Electronic Microscopy, Theory of operation, Applications In Life science and Neurology</b>
19:40 - 20:00	<b>3. Advanced Fluorescence Imaging, New approaches in image clarity, Image Analysis Software and image preparation and handling</b>
20:30 - 22:00	<b>Concert &amp; Gala Dinner</b>



# Conference Program

SUNDAY, April 13, 2014

09:00 - 10:20	<b>N3</b> <b>Chair: Georgia Theocharopoulou</b> <b>Room A - Lefkas</b>	<b>CBB3</b> <b>Chair: Adamantia Pateli</b> <b>Grand Ballroom</b>	<b>N4</b> <b>Chairs: Psiha Maria</b> <b>Room B - Ithaka</b>
09:20 - 09:40	Possible role of resveratrol targeting estradiol and neprilysin pathways in lipopolysaccharide model of alzheimer disease <i>Nesrine El Sayed and Yasmeen Bayan</i>	A Computer-Aid Diagnosis System for Geriatrics Assessment and Frailty Evaluation <i>Charalampos Vairaktarakis, Vasilis Tsiamis, Georgia Soursou, Filippos Lekkas, Markella Nikolopoulou, Emmanouilia Vasileiadou, Konstantinos Premtsis, Athanasios Alexiou</i>	Synthesis And Antiepileptic Activity of Schiff's Bases of Dialkylamino Alkoxyisatin Derivatives <i>Swathi Konda and Sarangapani Manda</i>
09:40 - 10:00	Notch Signaling and Ageing <i>Eleftheria Polychronidou, Dimitrios Vlachakis, Panayiotis Vlamos, Marc Baumann and Sophia Kossida</i>	Mitochondrial fusion through membrane automata <i>Konstantinos Giannakis and Theodore Andronikos</i>	Altered galectin glycosylation: potential factor for the diagnostics and therapeutics of various cardiovascular and neurological disorders <i>Ghulam Md Ashraf, Asma Perveen, Naheed Banu, Shams Tabrez and Syed Kashif Zaidi</i>
10:00 - 10:20	Adaptations in Aquatic Organisms for Increased Sensitivity to Light and Differences from Humans <i>Vasileios Petropoulos, Ioannis Petropoulos and Georgios Verriopoulos</i>	Clinical Decision Support System for the Diagnosis of Adolescence Health <i>Irene Moutsouri, Amalia Nikou, Machi Pamplau, Maria Lentza, Paulos Spyridakis, Natassa Mathiopoulou, Dimitris Konsoulas, Marianna Lampou and Athanasios Alexiou</i>	Synthesis and Screening of Biologically Significant 5-Hydroxy Isatin Derivatives for Anti-oxidant Activity <i>Swathi Konda and Sarangapani Manda</i>
10:20 - 11:00	<b>Coffee Break</b>		
12:00 - 13:00	<b>Keynote Address (Grand Ballroom Corfu Holiday Palace)</b> <b>Chair: Panayiotis Vlamos</b>		

# Conference Program

	<p><b>Professor Constantin Bouras, University Hospitals, Geneva, Department of Psychiatry, Switzerland</b> <b>Title: Individual severity of AD-type lesions, A<math>\beta</math> oligomers and comorbidity in the brain aging</b></p>
13:00	Closing Ceremonies