

Newsletter

Hellenic Bioscientific Association in the USA

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OCTOBER 2009

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Message from Fotis Kafatos, Professor, Immunogenomics Chair, Faculty of Natural Sciences, Imperial College London and Chairman of the European Research Council

Dear HBA-USA Members,

I am pleased to send this brief message to the members of the Hellenic Bioscientific Association in the USA, on the occasion of your first Pan-American meeting.

I would have enjoyed being with you, but unfortunately my heavy commitments to the European Research Council reduces to a minimum my free time.

The ERC is the first European organization that promotes excellence in all fields of research, from the Social Sciences and Humanities to the Biological, Physical and Engineering Sciences. Europe is determined to become again a leading actor in both research and development. While we promote these activities at the European level, we are mindful that success can only come if each and every country of the EU contributes substantially to this effort.

I fervently hope that our country, which can claim a centuries-long tradition of major discoveries and innovation in earlier times, will raise its ambition, to become a leading contributor in fundamental research and technology, and not a laggard. There are now many examples of European countries that have invested actively in these activities, which are strong indicators of both economic and cultural progress.

We should insist that our society and government properly recognize and foster the Hellenic potential.

With best wishes,
Fotis C. Kafatos

Message from Kostas Drosatos, President of HBA-USA, for the meeting in Boston

I am delighted to announce the 1st Pan-American meeting of the Hellenic Bioscientific Association in the USA (HBA-USA). The HBA-USA is an endeavor that was undertaken by a few young people 4.5 years ago and in such a limited time frame it has expanded to a scientific network of great potential with more than 270 Bioscientists of Greek origin or descent that are actively involved in basic or clinical research.

The Multidisciplinary Workshop in Biomedical Research that will be staged in Boston, MA on October 10-11, 2009 is the greatest enterprise that is undertaken in order to achieve the major aim of this network. That is to get the HBA-USA members in proximity, discuss on scientific basis and facilitate the development of collaborations. More importantly, a significant portion of the efforts put in this meeting is to provide young sci-

entists with the opportunity to interact with established principal investigators. Nevertheless, the willingness of professors with long-term experience in the American academic and research environment to mentor young scientists of this network has inspired all young people who initiated this endeavor and feeds our enthusiasm as this network goes on.

I am taking the opportunity to thank all Bioscientists who have joined this network and share the vision of creating a scientific communication channel with apparent professional benefits. Especially, I would like to thank all Board members for their contribution in the operation of the HBA-USA and especially the members of the organizing committee of this meeting for their constant effort to make it succeed.

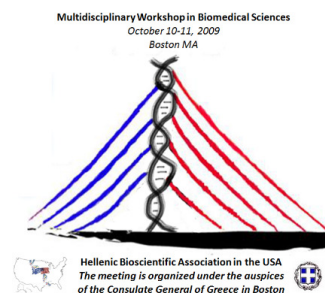
Besides, I want to extend my sincere appreciation to the members of the Advisory Board who believed in the importance of this network and since the initiation of this endeavor they have been continuously providing us with their valuable advice in all operational and organizational steps.

Last but not least, I want to acknowledge the Consul General of Greece in Boston, Mr. Konstantinos Orphanides, who has set this meeting under the auspices of the Greek Consulate and has significantly helped the organizing committee to make this meeting come true.

I am confident that this is an important first step of our association and with your continuous contribution there will be many more to follow.

Multidisciplinary Workshop in Biomedical Research: a collaborative effort mending the gap between bench and bedside
Joseph B. Martin Conference Center, Harvard University
77 Avenue Louis Pasteur, Boston, MA, 02115

PROGRAM



Saturday, October 10

2:00 – 3:00 pm **Meeting Registration & Reception**
2nd floor lounge

Opening ceremony
Rotunda

3:00 – 3:15 pm **Opening remarks**
Dr. Konstantinos Drosatos, Columbia University (President of the HBA-USA)

3:15 – 3:20 pm **Welcoming address**
Mr. Konstantinos Orphanides, H.E. Consul General of Greece to Boston

Presentation of the
1st "Aristoteles Award"
 for outstanding achievements in Bioscientific Research
Dr. Greg Stephanopoulos,
 Professor of Chemical Engineering, MIT, Boston, MA

3:20 – 3:50 pm **Keynote lecture**
Dr. Dimitri Nanopoulos, Distinguished Professor of Physics, Texas A&M University, TX

Session 1: plenary session-scientific highlights talks
Rotunda

Chair: **Dr. Nicolaos Madias**, Caritas St. Elizabeth's Medical Center, Boston, MA
 Co-chair: **Dr. Ari Patrinos**, Synthetic Genomics Inc., Washington, DC

3:50 - 4:15 pm **Dr. Nina Papavasiliou**, Rockefeller University, New York, NY
 A yeast-endonuclease-generated DNA break induces antigenic switching in *Trypanosoma brucei*, *Nature* 2009

4:15 – 4:40 pm **Dr. Dimitrios Vavylonis**, Lehigh University, Bethlehem, PA
 Assembly mechanism of the contractile ring for cytokinesis by fission yeast. *Science*, 2008

4:40 – 5:05 pm **Dr. Maria Hatzoglou**, Case Western Reserve University, Cleveland, OH,
 A stress-responsive RNA switch regulates *VEGFA* expression, *Nature*, 2008

5:05 – 5:30 pm **Dr. Dora Angelaki**, Washington University, St Louis, MO
 A neural representation of depth from motion parallax in macaque visual cortex, *Nature*, 2008

5:30 – 5:35 pm **Closing remarks** by the chairing committee

Poster session

5:30 – 6:30 pm
2nd floor lounge

Reception Dinner

7:00 – 9:00 pm

Consulate General of Greece, 86 Beacon Street, Boston, MA 02108

Honorable Consul General of Greece in Boston, Mr. Konstantinos Orphanides, will host a reception in honor of participants of the 1st Multidisciplinary Workshop in Biomedical Sciences

Sunday, October 11

9:00 – 11:00 am **Parallel thematic workshops**

Session 2

Endocrinology, Cardiovascular Biology and Metabolic Diseases workshop

Bray lecture room, 1st floor

Moderators: **Dr. Charalambos Gavras**, Boston University, Boston, MA

Dr. Yu-Hua Tseng, Joslin Diabetes Center, Harvard Medical School, Boston MA

9:00 – 9:25 am **Preparatory and introductory talk** by **Dr. Charalambos Gavras**, Boston University, Boston, MA

9:30 – 10:00 am **Preparatory and introductory talk** by **Dr. Yu-Hua Tseng**, Harvard Medical School, Boston MA

10:00 – 11:00 am **Workshop-round table discussion for collaborative effort**
Participants should be prepared to update briefly the audience on their scientific expertise and achievements

Session 3

Cancer Genetics and Tumor Marker Biology workshop

Classroom 214, 2nd floor

Moderators: **Dr. Theodore Krontiris**, City of Hope National Medical Center

Dr. Philip N. Tsihliis, TUFTS University Medical School, Boston, MA

9:00 – 9:25 am **Dr. Theodore Krontiris**, City of Hope National Medical Center

9:00 – 9:50 am **Dr. Philip N. Tsihliis**, TUFTS University Medical School, Boston, MA

9:50 – 10:15 am **Dr. Manolis Kellis**, MIT, Boston, MA

10:15 – 11:00 am **Workshop-round table discussion for collaborative effort**

Participants should be prepared to update briefly the audience on their scientific expertise and achievements

Session 4

Neurobiology and Neurodegenerative Diseases workshop

Classroom 217, 2nd floor

Moderators: **Dr. Nikos Robakis**, New York University, New York City, NY

Dr. Diomedes Logothetis, Virginia Commonwealth University, VA

9:00 – 9:25 am **Preparatory and introductory talk** by **Dr. Diomedes Logothetis**, Virginia Commonwealth University, VA

9:25 – 9:45 am **Preparatory and introductory talk** by **Dr. Nikos Robakis**, Mount Sinai School of Medicine, New York City, NY

10:00 – 11:00 am **Workshop-round table discussion for collaborative effort**

Participants should be prepared to update briefly the audience on their scientific expertise and achievements

Coffee and Refreshment break

2nd floor lounge

Session 5

Economics in Medical Research and funding opportunities: Perspectives of governmental institutions, academia and industry

Bray lecture room, 1st floor

11:30 - 11:50 pm **Dr. Laurent Bochereau**, Head, Science, Technology and Education Section, EU delegation, Washington, DC

11:50-12:10 pm **Dr. George Vasmatzis**, Mayo Clinic, Rochester, MN,

12:10 – 12:30 pm **speaker from the biotechnology industry** (TBA)

12:30 – 12:45 pm **Conference concluding remarks**

Dr. Thomas Thomou, Mayo Clinic, Rochester, MN

(vice-president of the HBA-USA and coordinator for the preparation of the meeting)

Bray lecture room, 1st floor

EVENT IN LAGONISI

The 3rd conference of the Global Hellenic Medical & Biosciences Network (GHMBN) was held in the Lagonisi Grand Resort, Greece on September 3-5. The meeting was under the auspices of the President of the Hellenic Republic, Dr. Karolos Papoulias and was funded by the Ministry of Health and Public Solidarity.

The HBA-USA that was recently invited to join the GHMBN as the first Bioscientific society, organized the session about research options and funding opportunities abroad as well as the session about stem cells. Specific topics of the sessions are listed below:

Basic Research Abroad

Moderators: Dimitri Nanopoulos, Kostas Drosatos

Research and Funding Opportunities in the European Union
Loula Sigala, *National Contact Point in Greece for the EU Mobility Programs for Researchers, National Hellenic Research Foundation, Athens, Greece*

Research Opportunities in the USA
Nicholas Tourides, *Educational Advisor, The Fulbright Foundation, Athens, Greece*

Clinical Research & Development: From the Laboratory to Patients
Angelos M. Stergiou, *Genesis BioPharmaGroup, Clinical Research & Development and Medical Affairs, New York, USA*

Reconciling the Research Landscape in Greece: Future Directions
Dimitri Nanopoulos, *Ordinary Member of the Academy of Athens, Distinguished Professor of Physics, Texas A&M University, Texas, USA*



Panel of the session about Basic research abroad. From left to right: Prof. D. Nanopoulos (TAMU), Dr. K. Drosatos (HBA-USA president, Columbia University), Mr. N. Tourides (Fulbright foundation), Dr. A. Stergiou (Genesis BioPharma group, New York), Dr. G. Ritou (FP7 National Contact Point)



The new chairman of the GHMBN, Dr. Spyros Mezitis with HBA-USA members; Dr. T. Thomou (HBA-USA vice-president – Mayo Clinic), Alex Petropoulos (Johns Hopkins), Aiki Kostelli (Columbia University), Dr. Eva Sotiriou (Columbia University), Dr. I. Michailidis (HBA-USA NY representative, Columbia University)

Stem Cells Applications

Moderators: George Koliakos, Dimitris Thanos

Introduction on the Properties of Stem Cells
George Koliakos, *Aristotle University of Thessaloniki, School of Medicine, Thessaloniki, Greece*

Current Trends in Biomedical Stem Cell Research
Andreas Androutsellis-Theotokis, *National Institutes of Health, Bethesda, USA*

Dental Stem Cells
George S. Colt, *American Board of Prosthodontics, Boston, USA*

Legal and Ethical Aspects on Stem Cell Research and Applications
Dimitris Thanos, *Biomedical Research Foundation of the Academy of Athens*



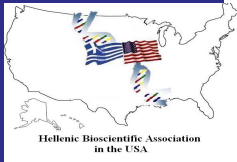
Left to right: Dr. Dimitris Kasiaras (University Hospital, Hradec Kralove, Czech Republic), Dr. Evangelia-Lial Amiral (Medical Director, Assistant Professor, McGill Univ, Canada & President of the Hellenic Medical Society of Quebec), Dr. Ria Sotiriou (University of Pennsylvania, Postdoctoral Research Scientist), Dr. Leonidas Alexopoulos (Instructor of Biengineering, National Technical University of Athens, Former member of the HBA-USA)



Dr. A. Androutsellis-Theotokis

The stem cell session was sponsored by the Biohellenika, Inc that covered air-ticket expenses for all speakers. The meeting was attended by more than 150 physicians and bioscientists and more than 100 members of the Greek Biomedical community. President, Dr. Konstantinos Drosatos, vice-president, Dr. Thomas Thomou and appointed secretary, Dr. Iordanes Karaggianides represented the HBA-USA Board during the meeting. Dr. K. Drosatos addressed a message during the closing session of the meeting and thanked the Minister of Health, Mr. D. Avramopoulos for sponsoring the meeting. Besides, Dr. Drosatos emphasized on the importance of the role of scientific societies to contribute in the professional and scientific development of each individual physician and bioscientist.

TOP 10 PUBLICATIONS LIST



*Congratulations
to all!*

Refer to the next
page to read an
interesting inter-
view with Dr Aifan-
tis, about the **No 1**
publication

The best 10 original papers published during the quarter of May '09 - Aug '09 by Greek/Greek-American researchers, that have registered with the HBA-USA, have been posted on the association's website (www.hba-usa.org). This is an effort aiming to highlight the scientific achievements of the Greek researchers who are members of the Hellenic Bioscientific Association in the USA.

- 1: Nature. 2009 Jun 18;459(7249):1000-4. CCR7 signalling as an essential regulator of CNS infiltration in T-cell leukaemia.
Buonamici S, Trimarchi T, Ruocco MG, Reavie L, Cathelin S, Mar BG, Klinakis A, Lukyanov Y, Tseng JC, Sen F, Gehrie E, Li M, Newcomb E, Zavadil J, Meruelo D, Lipp M, Ibrahim S, Efstratiadis A, Zagzag D, Bromberg JS, Dustin ML, **Aifantis I**. Department of Pathology and New York University Cancer Institute, New York 10016, USA.
- 2: Cell. 2009 May 15;137(4):647-58. MicroRNA-145 regulates OCT4, SOX2, and KLF4 and represses pluripotency in human embryonic stem cells.
Xu N, **Papagiannakopoulos T**, Pan G, Thomson JA, Kosik KS. Neuroscience Research Institute, Department of Molecular, Cellular, and Developmental Biology, The University of California, Santa Barbara, Santa Barbara, CA 93106, USA.
- 3: Science. 2009 May 29;324(5931):1192-6. A role for the CHC22 clathrin heavy-chain isoform in human glucose metabolism. **Vassilopoulos S**, et al.
Department of Bioengineering and Therapeutic Sciences, University of California, School of Pharmacy, San Francisco (UCSF), San Francisco, CA 94143, USA.
- 4: Nat Rev Neurosci. 2009 Aug;10(8):561-72. The glutamate homeostasis hypothesis of addiction. **Kalivas PW**.
Department of Neurosciences, Medical University of South Carolina, Charleston, South Carolina 29425, USA.
- 5: Nat Immunol. 2009 Jul;10(7):728-33. Structure of complement fragment C3b-factor H and implications for host protection by complement regulators. Wu J, Wu YQ, Ricklin D, Janssen BJ, **Lambris JD**, Gros P.
Crystal and Structural Chemistry, Bijvoet Center for Biomolecular Research, Department of Chemistry, Utrecht University, Utrecht, The Netherlands
- 6: Immunity. 2009 Jul 17;31(1):110-21. Virus binding to a plasma membrane receptor triggers interleukin-1 alpha-mediated proinflammatory macrophage response in vivo.
Di Paolo NC, Miao EA, Iwakura Y, Murali-Krishna K, Aderem A, Flavell RA, **Papayannopoulou T**, Shayakhmetov DM. Division of Medical Genetics, Department of Medicine, University of Washington, Seattle, WA 98195, USA.
- 7: Annu Rev Physiol. 2009;71:177-203. Transcriptional control of mitochondrial biogenesis and function.
Hock MB, **Kralli A**. Department of Chemical Physiology, The Scripps Research Institute, La Jolla, California 92037, USA.
- 8: J Clin Oncol. 2009 Jul 27. Final Results of Sequential Doxorubicin Plus Gemcitabine and Ifosfamide, Paclitaxel, and Cisplatin Chemotherapy in Patients With Metastatic or Locally Advanced Transitional Cell Carcinoma of the Urothelium. Milowsky MI, Nanus DM, Maluf FC, Mironov S, Shi W, **Iasonos A**, Riches J, Regazzi A, Bajorin DF.
Genitourinary Oncology Service, Division of Solid Tumor Oncology, Department of Medicine; Department of Radiology; and Department of Epidemiology and Biostatistics, Memorial Sloan-Kettering Cancer Center; and Weill Cornell Medical College of Cornell University; Department of Medicine, New York Presbyterian Hospital, New York, NY.
- 9: Cell Stem Cell. 2009 Jun 5;4(6):548-58. Hedgehog signaling is dispensable for adult hematopoietic stem cell function. Gao J, Graves S, Koch U, Liu S, Jankovic V, Buonamici S, El Andaloussi A, Nimer SD, Kee BL, Taichman R, Radtke F, **Aifantis I**. Department of Pathology and NYU Cancer Institute, New York University School of Medicine, New York, NY 10016, USA.
- 10: Arch Gen Psychiatry. 2009 Jun;66(6):591-600. Familiality of novel factorial dimensions of schizophrenia. McGrath JA, **Avramopoulos D**, Lasseter VK, Wolyniec PS, Fallin MD, Liang KY, Nestadt G, Thornquist MH, Luke JR, Chen PL, Valle D, Pulver AE. Department of Psychiatry, The Johns Hopkins University School of Medicine, 1820 Lancaster St, Ste 300, Baltimore, MD 21231, USA.

Q: Dr Aifantis, could you please give us an introduction of your academic profile?

A: I have started at the University of Crete in Greece where I have got my B.Sc. and my Masters in Molecular Biology and Genetics. I then moved to the University of Paris V (Necker Institute) where I have completed my Ph.D. thesis under the supervision of Dr. Harald von Boehmer. I moved with him to the Harvard Medical School for my postdoctoral fellowship, which I completed in 2003. I got my first independent position at the University of Chicago Medical School. A few years ago (end of 2006) I have moved to the NYU Medical School where I am currently an Associate Professor and the co-Director of the NYU Cancer Stem Cell Program. I am also an Early Career Scientist at the Howard Hughes Medical Institute (HHMI).

Q: Can you brief us on the major findings that are described in your recent papers in Nature (CCR7 signaling as an essential regulator of CNS infiltration in T-cell leukaemia - Nature 2009;459:1000-1004)?

A: My lab is studying the role of Notch, a well-known developmental regulator cloned by Dr. Spyros Artavanis-Tsakonas, in the induction and progression of blood disease and more specifically T cell acute lymphoblastic leukemia (T-ALL). T-ALL is a cancer that frequently afflicts children and although most of the patients respond to treatment, tumor relapse is quite common and almost impossible to eradicate. One of the most dangerous manifestations of this disease is the infiltration of the central nervous system (CNS) by leukemia cells that leads to destruction of neural tissue, paralysis and death. To avoid such effects, physicians either cranially irradiate the patients or provide "intrathecal" chemotherapy, directly into the CSF the fluid that protects the CNS. This is an effective treatment but with several very significant side-effects, including secondary tumors, developmental defects and cognitive deficiencies. My lab attempted to identify a molecular "switch", a molecule that could be responsible for the entry of leukemic cells into the CNS. Using both animal models of T-ALL and human T-ALL cells lines, we have identified the chemokine receptor CCR7 and its ligand, the chemokine CCL19 as such an "IN/OUT" signal.

Q: Do you think your results will lead to new diagnostic approaches and therapeutic interventions for T-cell acute lymphoblastic leukemia?

A: They could, we are very optimistic but it is only the beginning. We are currently testing genetically the importance of CCR7 receptor targeting using different models of T-ALL. We are also developing human antibodies and small molecules that could block receptor function.

Q: In the era of genomic profiling, do you think studies that look into gene expression (as you have done in your current study) will advance our knowledge in the pathophysiology of human diseases?

A: They are very useful but of course they are always the beginning. Animal modeling is probably the most effective next step. Once preclinical studies are concluded successfully one can pass to human clinical trials. To return to genomic profiling, it is a very informative "fishing expedition", however most of the times it leads nowhere!

Q: Lastly, on a more personal note, you have been a very successful scientist in your area. So, what would you advise the new scientists who are at their beginning of their career so that they can also be successful?

A: Difficult to say, there are no clear-cut rules. Success is a relative and ever-evolving notion. I would say "play the game but also try to stay away from it". With that I mean that young investigators have to follow the rules dictated by NIH, university tenure system etc. This is the only way to start and built a viable lab. At the same time they should try to be more innovative and push the envelope with a few projects, as this is what will give them the break that they need. And one last thing: "Choose intelligently your lab colleagues because it is better to have a lab with few good students/postdocs than an army of people with no skills and drive"!

Thank you

1 post-doctoral position in **innate immunity** and **fungal pathogenesis** (Harvard Medical School, **Boston MA**)

1 instructor position in **Molecular Genetics** (Harokopio University, Athens Greece)

Post-doctoral position in the interrelationship between **metabolism** and **cell cycle progression** (TAMU, College Station, TX)

Lab Research Assistant position in **comparative genomics** (American Museum of Natural History, **New York, NY**)

Post-doctoral and PhD positions in Biophysics and Bioengineering (Gotingen, **Germany**)

1 post-doctoral position in **Experimental Biophysics** (Institute Jaques Monod, **France**)

Research positions (Democritos Research Institute, **Greece**)

Board Certified or Board Eligible Pediatric Hematologist/Oncologists (**University of Arizona, Tucson AZ**)

1 post-doctoral & 1 PhD student position in Molecular Infectiology (University of Cologne, **Germany**)

1 PhD student position in **Molecular Immunology** (University of Cologne, **Germany**)

1 post-doctoral position in inflammation and auto-immunity (National Cancer Institute, **Bethesda MD**)

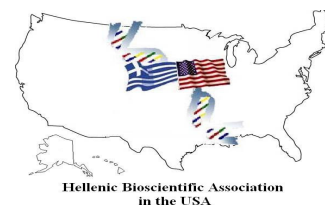
1 post-doctoral position in Molecular Mechanisms of **Lung Injury and Repair** (**Harvard Medical School, Boston MA**)



Visit our website to find information about these positions

*The HBA-USA
welcomes new members*

Vasiliki Machairaki, John Hopkins School of Medicine
 Dimosthenis Mantopoulos, Massachusetts Eye and Ear Infirmary
 Konstantinos Loupasakis, Tufts University
 David Kalergis, Diffusion Pharmaceuticals LLC
 Andreas Androutsellis-Theotakis, NINDS/NIH
 Dionissios Neofytos, Harvard/Beth Israel Deaconess Medical Center
 Maria Irene Kontaridis, Massachusetts Institute of Technology
 Gesthimani Samiotaki, Columbia University
 Kyriakos Economides, Sanofi-Aventis
 Renata Micha, Harvard School of Public Health
 George John Tsoulis, Mount Sinai School of Medicine
 Athena Kourtis, Emory University School of Medicine
 Konstantinos Koskinas, Brigham and Wome's Hospital
 Maria Chondronikola, New York University
 Evripidis Gavathiotis, Children's Hospital, Harvard Medical School
 Angelos Sikalidis, Cornell University
 George Chloros, Virginia Commonwealth University



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