<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message of the Minister of Health and Social Solidarity, Mr. Dimitris Avramopoulos</td>
<td>05</td>
</tr>
<tr>
<td>Welcome Address from the President of the Global Hellenic Medical &amp; Biosciences Network, Mr. George D. Dangas</td>
<td>09</td>
</tr>
<tr>
<td>Welcome Address from Dr. Roy Vagelos</td>
<td>10</td>
</tr>
<tr>
<td>Welcome Address from the Past Presidents of the World Hellenic Biomedical Association</td>
<td>12</td>
</tr>
<tr>
<td>Welcome Address from the President of the Hellenic Bioscientific Association of USA, Mr. Konstantinos Drosatos</td>
<td>13</td>
</tr>
<tr>
<td>Welcome Address from the President of the Federation of Hellenic Medical Societies of North America, Mr. Spyros Mezitis</td>
<td>14</td>
</tr>
<tr>
<td>Welcome Address from the President of the Hellenic Medical Society of New York, Mr. George J. Tsioulias</td>
<td>15</td>
</tr>
<tr>
<td>Welcome Address from the President of the Hellenic Medical Association of Quebec, Mrs. Evangelia (Lila) Amirali</td>
<td>16</td>
</tr>
<tr>
<td>Welcome Address from the Director of Medical Affairs of HelleniCare, Mr. Charles Kanakis</td>
<td>16</td>
</tr>
<tr>
<td>Welcome Address from the President of the Hellenic Medical Society of Philadelphia, Mr. Elias Iliadis</td>
<td>17</td>
</tr>
<tr>
<td>Kos Founding Declaration</td>
<td>18</td>
</tr>
<tr>
<td>Committees</td>
<td>26</td>
</tr>
<tr>
<td>Represented Countries by Participants of Hellenic Descent</td>
<td>28</td>
</tr>
<tr>
<td>Congress Programme</td>
<td>29</td>
</tr>
<tr>
<td>General Information</td>
<td>54</td>
</tr>
<tr>
<td>The Acropolis Museum</td>
<td>60</td>
</tr>
<tr>
<td>Abstracts</td>
<td>63</td>
</tr>
</tbody>
</table>
ΠΕΡΙΕΧΟΜΕΝΑ

Μήνυμα του Υπουργού Υγείας & Κοινωνικής Αλληλεγγύης, κ. Δημήτρη Αβραμόπουλου  05

Χαιρετισμός Προέδρου του Παγκόσμιου Δικτύου Ελλήνων Ιατρών & Βιοεπιστημόνων, κ. Γεώργιος Δ. Ντάγα 09

Χαιρετισμός του Dr. Roy Vagelos  10

Χαιρετισμός τέως Προέδρων Παγκοσμίου Συνδέσμου Ελλήνων Βιοεπιστημόνων  12

Χαιρετισμός Προέδρου Συλλόγου Ελλήνων Βιοεπιστημόνων ΗΠΑ, κ. Κωνσταντίνου Δροσάτου  13

Χαιρετισμός Προέδρου Ομοσπονδίας Ιατρικών Συλλόγων Β. Αμερικής, κ. Σπύρου Μεζίτη  14

Χαιρετισμός Προέδρου της Ελληνικής Ιατρικής Εταιρείας Νέας Υόρκης, κ. Γεώργιος Ι. Τσιούλια 15

Χαιρετισμός Προέδρου της Ελληνικής Ιατρικής Εταιρείας του Κεμπέκ, κ. Ευαγγελία (Λίλα) Αμιράλη 16

Χαιρετισμός Διευθυντή Ιατρικών Θεμάτων της Ελληνικής Φροντίδας (HelleniCare), κ. Κυριάκο Κανάκη 16

Χαιρετισμός Προέδρου της Ελληνικής Ιατρικής Εταιρείας της Φιλαδέλφεια, κ. Ηλία Ηλιάδη 17

Ιδρυτική Διακήρυξη της Κω 18

Επιτροπές  26

Εκπροσωπούμενες Χώρες Προέλευσης Συνέδρων Ελληνικής Καταγωγής  28

Πρόγραμμα Συνεδρίου  29

Γενικές Πληροφορίες  54

Το Μουσείο της Ακρόπολης  60

Περιλήψεις  63
Dear Friends and Participants,

Hellenism has always been characterized by its extrovert nature, with its steady and strong presence in the international environment, and creatively progressed in every corner of the world. Hellenism was never confined by borders and this exact notion creates the most positive prospects for the future in the new globalized present arena.

We Hellenes consider the contemporary world as our natural arena, this privileged environment, where we can fully develop our positive characteristics, our advantages and our charismas. And this is the way towards distinction and success in all areas: in letters, sciences, arts, entrepreneurship, education and culture.

In this competitive path, you doctors of Greek descent are positioned right in the frontline, successors of Asclepius, Hippocrates and George Papanikolaou as well as numerous important contemporary personalities of the global medical science.

Greek bioscientists stand on your side with their impeccable scientific education & experience, their distinguished scientific contribution and establishment, their recognition by the world’s top universities and research centers. Greek bioscientists, who from this year onwards, are full and equal members of the expanded Global Hellenic Medical & Biosciences Network.

The medical profession, as well as the field of biosciences and interactive research, constitute privileged areas for the development of programs of collaboration, with the participation of a plethora of distinguished Hellenic descent scientists, from Greece and Cyprus, dispersed around the world. A new mode, with the support of the new technologies, which opens meeting paths and creative relations with common axis our Hellenic identity.

Two years ago, in the island of Hippocrates, Kos, our initiative materialized and we set together the foundations of a new era for the strong presence of doctors of Greek descent, from Greece and Cyprus, as well as Greek scientists in the global community.

After the enthusiastic response to this first call and the adaptation of the Founding Declaration of Kos, as well as the successful meeting of the Network in September 2008 in Paphos, Cyprus the organization of the present congress constitutes yet again one step forward and a material confirmation of our common commitment to advance by empowering, supporting and encouraging the Network.
Φίλες και φίλοι Σύνεδροι,

Ο Ελληνισμός διακρινόταν πάντα από εξωστρέφεια που οδηγούσε σε μία σταθερή και ισχυρή παρουσία στο διεθνές περιβάλλον και αναπτυσσόταν δημιουργικά σε κάθε γωνιά του κόσμου. Δεν γνώριζε και δεν γνωρίζει σύνορα και ακριβώς αυτή η αντίληψη είναι που δημιουργεί τις πλέον θετικές προοπτικές για το μέλλον του στο παγκοσμιοποιημένο πλέον πεδίο.

Εμείς οι Έλληνες αισθανόμαστε αυτό το σύγχρονο παγκόσμιο περιβάλλον ως τον φυσικό μας χώρο, το προνομιακό εκείνο τοπίο, όπου μπορούμε να καλλιεργήσουμε και να αξιοποιήσουμε τα προτερήματα, τα πλεονεκτήματα, τα χαρίσματά μας. Αυτό ακριβώς οδηγεί στην διάκριση και στην επιτυχία σε όλους τους τομείς: στα γράμματα, στις επιστήμες, στις τέχνες, στην επιχειρηματικότητα, στην παιδεία, στον πολιτισμό.

Στον ανταγωνιστικό αυτό δρόμο, μπροστά, και στην πρώτη γραμμή, είστε όλοι εσείς, οι ελληνικής καταγωγής γιατροί του κόσμου, συνεχιστές του Ασκληπιού και του Ιπποκράτη, αλλά και του Γεώργιου Παπανικολάου όσο και πολλών σημαντικών σύγχρονων προσωπικοτήτων της παγκόσμιας ιατρικής επιστήμης.

Στον πλευρό σας στέκονται οι Έλληνες βιοεπιστήμονες με την άρτια επιστημονική κατάρτιση, τη διακεκριμένη επιστημονική προσφορά και καταξίωση, την αναγνώριση από τα κορυφαία πανεπιστήμια και ερευνητικά κέντρα σε όλο τον κόσμο. Οι Έλληνες βιοεπιστήμονες οι οποίοι, από φέτος αποτελούν πλήρη και ισότιμα μέλη του διευρυμένου Παγκοσμίου Δικτύου Ελλήνων Ιατρών και Βιοεπιστημόνων.

Το ιατρικό λειτούργημα, καθώς και το πεδίο των βιοεπιστημών και της διαδραστικής έρευνας, αποτελούν προνομιακούς χώρους ανάπτυξης προγραμμάτων συνεργασίας, με τη συμμετοχή άξιων επιστημόνων ελληνικής καταγωγής, από την Ελλάδα και την Κύπρο διάσπαρτα σε όλο τον κόσμο. Στο ιατρικό λειτούργημα καθώς και στην διαδραστική έρευνα καθώς και στην ιατρική επιστήμη ή σε όλο τον κόσμο. Οι Έλληνες βιοεπιστήμονες οι οποίοι, από φέτος αποτελούν πλήρη και ισότιμα μέλη του Παγκοσμίου Δικτύου Ελλήνων Ιατρών και Βιοεπιστημόνων.

Πριν από 2 χρόνια, στο νησί του Ιπποκράτη, στην Κω, έλαβε σάρκα και οστά η πρωτοβουλία μας αυτή και τέθηκαν τότε μαζί τα θεμέλια μιας νέας εποχής στην ισχυρή παρουσία των ελληνικής καταγωγής γιατρών από την Ελλάδα και την Κύπρο, των Ελλήνων επιστημόνων στην παγκόσμια κοινότητα.

Σε συνέχεια της ενθουσιώδους ανταπόκρισης σε αυτό το πρώτο κάλεσμα και την υιοθέτηση της Ιδρυτικής Διακήρυξης της Κω, καθώς επίσης και μετά την επιτυχή συνάντηση του Δικτύου τον Σεπτέμβριο του 2008 στην Πάφο της Κύπρου, η φετινή διοργάνωση αποτελεί ένα ακόμα βήμα προς το εμπρός και μία ακόμα έμπρηση στην αναγνώριση των ελληνικής καταγωγής γιατρών από την Ελλάδα και την Κύπρο, των Ελλήνων επιστημόνων στην παγκόσμια κοινότητα.
The Greek state stands by your side, coordinates without intervening, encourages you and triggers you to evolve on the road of progress, scientific research and contribution, creating bonds of unity and solidarity through our common national conscience. It promotes communication, mutual support, scientific collaboration and the cultivation of human relations among Greek doctors and bioscientists around the world.

Greece, in the constant effort it exerts for the improvement of the provided public health services but also in tackling all major public health issues, is looking forward to your scientific and academic contribution jointly with the scientific human resources of our country. And this congress constitutes yet one more step towards the accomplishment of this target.

Dear Friends,

In this new era that has already dawned, the Greek citizens of the world, and primarily our scientists, constitute a strong cornerstone in the new world architecture and exceptionally embody the expression of valor and creativity of the new Hellenism beyond and above the trivial and insignificant issues, the drawbacks and the disadvantages that have, many times in the past, constrained and diminished the energy, the inspiration, the imagination and the actions of Greeks.

The Network expresses this new concept that fits with our era and the prospect of a new Greece in the world of open borders and ideas.

I welcome you to our country wishing every success in the congress and I invite you to contribute, along with your distinguished colleagues in Greece, to the realization of a new era of national cohesion, solidarity and unity that will bring about a new strong presence of Greek medical science & bioscience in the new emerging world.

Hellenism of the Greek citizens of the world is here.

With cordial regards

Dimitris L. Avramopoulos
Minister of Health & Social Solidarity
Η ελληνική πολιτεία είναι στο πλευρό σας, συντονίζει χωρίς να παρεμβαίνει, σας ενθαρρύνει και σας παρατρέπει να προχωρήσετε στο δρόμο της προόδου, της επιστημονικής έρευνας και προσφοράς καλλιεργώντας δεσμούς ενότητας και αλληλεγγύης, μέσα από την κοινή μας εθνική συνείδηση. Διευκολύνει την επικοινωνία, την αλληλούποστηρίζη, την επιστημονική συνεργασία και την καλλιέργεια ανθρώπινων σχέσεων, ανάμεσα στους Έλληνες γιατρούς και βιοεπιστήμονες του κόσμου ολόκληρου.

Η Ελλάδα, στην διαχρονική προσπάθεια που καταβάλλει για τη βελτίωση των παρεχόμενων υπηρεσιών υγείας αλλά και την αντιμετώπιση όλων των μεγάλων ζητημάτων για τη δημόσια υγεία, προσβλέπει στην επιστημονική και ακαδημαϊκή σας συμβολή από κοινού με το επιστημονικό δυναμικό της πατρίδας. Και το συνέδριο αυτό συνιστά ένα ακόμα πεδίο προς το σκοπό αυτό.

Φίλες και φίλοι,

Σε αυτόν τον καινούργιο κόσμο που έχει ήδη ανατέθει, οι Έλληνες πολίτες του κόσμου, με πρώτους τους επιστήμονές μας, αποτελούν ισχυρό θεμέλιο της νέας παγκόσμιας αρχιτεκτονικής και συνιστούν την κατεξοχήν έκφραση της αξιοπροσωπικότητας και της επικοινωνίας του νέου ελληνισμού πέρα και πάνω από αυτά, στο μετάτομα και τα μετανόητα πολλές φορές στο παρελθόν περιορίσαταν και περικοπές την ενέργεια, την έμπνευση, τη φαντασία και τις δράσεις των Ελλήνων.

Το Δίκτυο εκφράζει αυτή τη νέα αντίληψη που δένει με την εποχή μας και την προοπτική της νέας Ελλάδας στον κόσμο των ανοιχτών συνόρων και ιδεών.

Σας καλωσορίζω στην πατρίδα μας, ευχόμενος να συμμετεχείτε στο συνέδριο και σας καλώ να συμβάλετε, μαζί με τους άλλους καλείσθε καλά στην Ελλάδα, στο κτίσμα μιας ομοίως νέας εποχής εθνικής συνοχής, αλληλεγγύης και ενότητας, που θα δώσει μία νέα ισχυρή παρουσία της ελληνικής επιστήμης και βιοεπιστήμης στο νέο κόσμο που γεννιέται.

Ο ελληνισμός των Έλληνων πολιτών του κόσμου είναι εδώ.

Με εγκάρδιους χαιρετισμούς

Δημήτρης Λ. Αβραμόπουλος
Υπουργός Υγείας & Κοινωνικής Αλληλεγγύης
On behalf of the Executive Board of the Global Hellenic Medical & Biosciences Network, I would like to extend an official welcome to the entire faculty and all other participants and attendees of this 3rd Annual World Congress. I also wish to hereby acknowledge the continued major support to the Network by the President of the Hellenic Republic Dr. Karolos Paroulias and of course by the Hellenic Minister of Health & Social Solidarity Mr. Dimitris Avramopoulos under whose auspices this conference is conducted.

The scientific program has a diverse, multi-specialty character branching out to many subjects of interest and there is remarkable geographic diversity of the faculty, from many continents around the world. Both of these facts underline the universal features of medical education in the present era, as well as the broad appeal of scientific events organized by our Network. However, this year our Congress is not limited to the scientific sessions, but has accentuated the very symbolic organizational function that has been bringing us together from many different parts of the world. This stems from the overwhelming participation to the Network’s Founding Forum held in June 2007 in the island of Kos. We follow the pace of others that have started such efforts years ago and aim to approach and engage through the modern technologies the Hellenic organizations of bioscientists worldwide as well as remotely located members without such organized societies in their vicinity. We anticipate that this year we will move further ahead from the initial declaration put together in Kos and we will come closer to our goal of future collaboration and effective exchange of ideas.

Accolades are owed to the four most energetic collaborators for this year’s Congress (alphabetically): (i) Kostas Drosatos, Head of USA Bioscientists, (ii) Dimitris Iatrides Special Advisor of the Greek Minister of Health & Social Solidarity (iii) Spyros Mezitis, Head of the Medical Societies Federation and (iv) George Tsioulias, Head of the New York Hellenic Medical Society.

Of course the most congratulations are owed collectively to the entire faculty and all the participants who give life to the conference and energize our Network.
Again, a very warm welcome to all attending this Congress!

George D. Dangas, MD
Head of Global Hellenic Medical and Biosciences Network & Chairman of the Congress
Immediate Past-President of the Hellenic Medical Society of New York
Associate Professor of Medicine (Cardiovascular Disease), Columbia University
Εκ μέρους της εκτελεστικής επιτροπής του Παγκοσμίου Δικτύου Ελλήνων Ιατρών & Βιοεπιστημόνων, επιθυμώ να καλωσορίσω θερμά όλους τους συμμετέχοντες στο συνέδριο αυτό και να διαβιβάσω ευχαριστίες προς τον Πρόεδρο της Δημοκρατίας κ. Κάρολο Παπούλια και τον Υπουργό Υγείας και Κοινωνικής Αλληλεγγύης κ. Δημήτρη Αβραμόπουλο υπό την αιγίδα των οποίων τελεί το εφετινό συνέδριο. Το επιστημονικό πρόγραμμα είναι ποικίλο τόσο από θεματικής άποψης όσο και σε σχέση με τη γεωγραφική κατανομή των ομιλητών και συνεδριών. Οι δύο αυτές διαστάσεις υπογραμμίζουν την ευρεία απήχηση της ιατρικής εκπαίδευσης και βιοϊατρικής της εποχής μας, αλλά και την ευρεία αποδοχή των εργασιών του συνεδρίου του Δικτύου μας.

Εφέτος το συνέδριο δεν εξαντλείται σε επιστημονικές διαλέξεις, αλλά έχει επίσης εστιαστεί σε ιδιαίτερα σημαντικές δράσεις. Αυτά αποτελούν δραστηριότητες που θέλουμε να προσθέσουμε στο επιστημονικό πρόγραμμα το εφετινό συνέδριο. Εμπειρία και κοινωνικό πρόγραμμα και οι εργασίες του Δικτύου είναι στο σημείο, τα οποία προκαθορίζουν την ευρεία διάσκεψη της εποχής μας. Ευπροσδοκούμε ότι οι συνεργασίες τους θα προωθηθούν από την πρωταρχική διασκόρπιση της κοινωνίας και της κοινωνίας των ιατρικών για την ανάπτυξη της επιστήμης και της ευγένειας στην ευρύτερη κοινωνία μας.

Όσα προς την οργάνωση του συνεδρίου, επικροτώ διά του παρόντος τους τέσσερις ενεργούς συνεργάτες (αλφαβητικά): (α) Κώστας Δροσάτος, Επικεφαλής των Βιοεπιστημόνων ΗΠΑ, (β) Δημήτρης Δημητρίδης, Ειδικός Σύμβουλος του Υπουργού Υγείας & Κοινωνικής Αλληλεγγύης, (γ) Σπύρος Μεζίτης, Επικεφαλής της Ομοσπονδίας Ιατρών Β. Αμερικής και (δ) Ανθώνυμος, Επικεφαλής της Ιατρικής Εταιρείας Ν. Υόρκης.

Οπωσδήποτε, τα πιο θεματικά συνεργαστήρια αντικόν τους αντιλακτικά σε όλους όσοι κατέθεσαν εργασίες και ομιλίες και έκαναν εγγραφή παρακολούθησης καθώς με τους τρόπους αυτούς δίνουν σάρκα και οστά στο συνέδριο αυτό και στο Δίκτυο μας.

Και πάλι καλώσιμα αριστεία!

Γεώργιος Δ. Ντάγγας
Επικεφαλής του Παγκοσμίου Δικτύου Ελλήνων Ιατρών & Βιοεπιστημόνων
Πρόεδρος του Συνεδρίου Τέως Πρόεδρος Ελληνικής Ιατρικής Εταιρείας Νέας Υόρκης
Αναπληρωτής Καθηγητής Καρδιολογίας Πανεπιστημίου Columbia
Dear members of the Global Hellenic Medical and Biosciences Network,

I would like to thank you for the Honor conferred to me today. I have been a very fortunate person. My family originated on the island of Mytilini although both my parents were born in Turkey (Smyrna and Denizli). My paternal grandfather was a physician trained at the University of Athens but he died early leaving a large young family with little education and no means of earning a living in Greece. The 5 sons immigrated to the U.S., returning to Mytiliini for arranged marriages as soon as they could afford them.

My parents were very anxious that I receive an excellent education and I was fortunate to enter the University of Pennsylvania where I majored in chemistry which I loved. I later received an MD at Columbia University and then did an internship and residency at the Massachusetts General Hospital. In 1956 I began a career that was split one-third in government (National Institutes of Health) where I took care of heart patients and learned biochemistry from Dr. Earl Stadtman who was a major force in my life. I began my research on fatty acids and lipids there. The next third was spent in academia at Washington University in St. Louis, Missouri, where I taught biochemistry to medical, undergraduate and graduate students and continued my research. The final third was spent in industry Merck, which I joined in 1975 in order to focus my biochemistry on drug discovery. I was anxious to use my science to improve the lives of people. After all, I had become a physician for that purpose.

Our Merck research group discovered a number of important drugs: the statins for prevention of heart attacks and strokes, broad spectrum antibiotics, drugs for hypertension, osteoporosis, benign prostate enlargement and a drug to prevent River Blindness. It also developed the first recombinant vaccine in the world against hepatitis B that prevents infection by this virus that can cause chronic liver disease and primary liver cancer.

Drugs discovered in our laboratory were used to cure and prevent diseases throughout the world, but it was our work on River Blindness that presented us with the opportunity to directly follow the teachings of Hippocrates who used SCIENCE as the basis of his practice of medicine and developed MORAL and professional standards that earned him the title of “Father of Medicine”.
Αγαπητά μέλη του Παγκόσμιου Δικτύου Ελλήνων Ιατρών και Βιοεπιστημόνων,

Θα ήθελα να σας ευχαριστήσω για την τιμή που μου κάνετε σήμερα. Υπήρξα πολύ τυχερός άνθρωπος. Η οικογένειά μου κατάγεται από την Τουρκία (Σμύρνη και Λαοδικεία). Ο παππούς μου από τη μεριά του πατέρα μου, ήταν γιατρός, σπούδασε στο Πανεπιστήμιο της Αθήνας αλλά πέθανε νέος αφήνοντας πίσω του μία πολυμελή και νέα σε ηλικία οικογένεια, σχεδόν χωρίς μόρφωση και χωρίς τα μέσα να βγάλουν τα προς το ζην στην Ελλάδα. Οι πέντε γιοι μετανάστευσαν στις Ηνωμένες Πολιτείες με σκοπό να επιστρέψουν στη Μυτιλήνη για να παντρευτούν μόλις οι συνθήκες θα τους το επέτρεπαν.

Οι γονείς μου επέμεναν να λάβω όσο το δυνατόν καλύτερη μόρφωση και είχα την τύχη να γίνω δεκτός στο Πανεπιστήμιο της Πενσυλβανίας απ’ το οποίο πήρα το πρώτο μου πτυχίο στη Χημεία την οποία αγαπούσα. Αργότερα πήρα το πτυχίο της ιατρικής από το Πανεπιστήμιο Κολούμπια και μετά έκανα την ειδίκευσή μου και εργάστηκα στο Γενικό Νοσοκομείο της Μασαχουσέτης. Το 1956 ξεκίνησα τη σταδιοδρομία μου η οποία ήταν μοιρασμένη κατά το εν τρίτο σε κυβερνητικά προγράμματα (Εθνικά Ινστιτούτα Υγείας) όπου φρόντισα καρδιοπαθείς και διδάχθηκα βιοχημεία από τον Dr. Earl Stadtman, ο οποίος επηρέασε σε μεγάλο βαθμό τη ζωή μου. Εκεί ξεκίνησα και την έρευνά μου για τα λιπαρά οξέα και τα λιπίδια. Το επόμενο τρίτο είναι ακαδημαϊκό: Στο πανεπιστήμιο Ουάσινγκτον, στο Σεντ Λούις του Μιζούρι, δίδαξα βιοχημεία σε προπτυχιακούς και μεταπτυχιακούς φοιτητές ιατρικής και συνέχισα την έρευνά μου. Το τελευταίο τρίτο αφορά τον κόσμο των επιχειρήσεων, τη Merck συγκεκριμένα, με την οποία ξεκίνησα τη συνεργασία μου το 1975, με σκοπό να χρησιμοποιήσω τη βιοχημεία που είχα μάθει για να ανακαλύψω νέα φάρμακα. Ήθελα με κάθε τρόπο να χρησιμοποιήσω την επιστήμη για να βελτιώσω τις ζωές των άνθρωπων. Άλλωστε, γι’ αυτό το λόγο είχα γίνει γιατρός.

Η ερευνητική μας ομάδα στη Merck ανακάλυψε μερικά σημαντικά φάρμακα: τις στατίνες για την πρόληψη του εμφράγματος και των εγκεφαλικών, ένα ευρύ φάσμα αντιβιοτικών, φάρμακα για την υπέρταση, την οστεοπόρωση, την καλοήθη διόγκωση του προστάτη και ένα φάρμακο για την πρόληψη της ογκοκέρκωσης - River Blindness. Άλλωστε, γι’ αυτό το λόγο είχα γίνει γιατρός. Η ερευνητική μας ομάδα στη Merck ανακάλυψε μερικά σημαντικά φάρμακα: τις στατίνες για την πρόληψη του εμφράγματος και των εγκεφαλικών, ένα ευρύ φάσμα αντιβιοτικών, φάρμακα για την υπέρταση, την οστεοπόρωση, την καλοήθη διόγκωση του προστάτη και ένα φάρμακο για την πρόληψη της ογκοκέρκωσης - River Blindness. Άλλωστε, γι’ αυτό το λόγο είχα γίνει γιατρός. Η ερευνητική μας ομάδα στη Merck ανακάλυψε μερικά σημαντικά φάρμακα: τις στατίνες για την πρόληψη του εμφράγματος και των εγκεφαλικών, ένα ευρύ φάσμα αντιβιοτικών, φάρμακα για την υπέρταση, την οστεοπόρωση, την καλοήθη διόγκωση του προστάτη και ένα φάρμακο για την πρόληψη της ογκοκέρκωσης - River Blindness. Άλλωστε, γι’ αυτό το λόγο είχα γίνει γιατρός. 

Τα φάρμακα που ανακαλύφθηκαν στο εργαστήριό μας χρησιμοποιήθηκαν για να θεραπεύσουν και να προλάβουν ασθένειες σε αλόκληρο τον κόσμο, όμως το έργο μας για τον γαλακτόκορο ήταν ένα εμπλεκόμενο εμβόλιο στον κόσμο κατά της ιπποκράτειας B, το οποίο προλαμβάνει την μόλυνση από τον ιό του οποίου μπορεί να προκαλέσει χρόνια παθή νόσο και πρωτοπαθή καρκίνο του ήπατος.
The World Hellenic Bio-Medical Association (WHBA) has been promoting co-operation in the fields of Biology and Health Sciences over the last 20 years among Greek origin scientists and professionals living abroad. The WHBA has also established links with the Bio-Medical Academia of Greece through the Medical Schools of Greek Universities and Learned Bio-Medical Societies.

We welcome the 3rd congress of the Global Hellenic Medical & Biosciences Network in Athens on 3rd to 5th September 2009. The enthusiastic response of such a large number of participants from different parts of the World promises a successful and productive meeting. We acknowledge the contribution and support of the Greek Government.

The Global Hellenic Medical & Biosciences Network has created a new momentum in the cooperation of Greek Medical and Bioscientists colleagues of the Hellenic Diaspora in recent years offering new advantages in our field and our common interests.

Expanding similar activities will further increase the potential great benefits of joint ventures and working together with colleagues in Greece in education, training, research and service development. We are pleased to participate in the 3rd congress of the Global Hellenic Medical & Biosciences Network in Athens and look forward to future events. Defining the expected outcomes will be an essential and important factor and will also facilitate significant achievements. We should fully embrace the significant opportunities ahead for scientific achievement and wider positive outcomes for Greece and Greek Medical and Bioscientists living abroad.

WHBA Past Presidents
*Nick Bouras, Peter Katayiannis, Paul Kymissis, Gabriel Panayi, Costas Soldatos*
It is with great pleasure to participate, on behalf of the Hellenic Bioscientific Association in the USA, in the 3rd congress of the Global Hellenic Medical & Biosciences Network.

This is a unique opportunity for the members of the Hellenic Biomedical society to intensify the communication channel among peripheral scientific communities. Moreover, this forum can facilitate the cooperation among individual scientists that pursue basic and clinical research in Greece and abroad. Such interaction can lead to the establishment of collaborative efforts that may contribute in the development of novel therapeutic approaches that will be based on thorough investigation of the mechanisms that underlie diseases.

During the previous two years Greece and Cyprus have done much more than what was expected from the Global Biomedical community. This is the 3rd global meeting that is under the auspices of H.E. the President of the Hellenic Republic and is sponsored by the Greek Ministry of Health and Social Solidarity. We are grateful to them as well as to the authorities of Cyprus for their support.

Now, it is the time of responsibility for all of us, the doctors and Bioscientists from Greece and abroad. We need to overcome the difficulties and the mistakes of the past and seize the opportunity that is given to us. We have to transform this network from an impersonal entity into an active organization that focuses on the needs of individual doctors and bioscientists and supports ongoing activities of scientific societies or individual professors. A framework of improved educative opportunities, scientific cooperation and upgraded professional environment needs to be in the focus of the network and more importantly to be available for everyone who is committed in excellence.

Prudence, meritocracy and willingness to serve the global medical & biosciences community should characterize all people who will operate this network in order not to miss the opportunity to act for the benefit of the health care system and biomedical research in Greece.

Constantinos Drosatos, PhD
President
It is with distinct pleasure and great honor that I extend my warmest greetings to the Executive Board of the Global Hellenic Medical & Biosciences Network (GHMBN) and the Grand Sponsor of the conference, Hellenic Ministry of Health and Social Solidarity under the direction of Honorable Minister Mr. Dimitris Avramopoulos.

As member of the Executive Board and Organizing Committee of this conference, I have participated in this organization bringing together the Hellenic medical and bioscientific societies of the world. Goals have been the networking of the Hellenic physicians and bioscientists abroad and collaboration with the Hellenic Ministry of Health and Social Solidarity for the improvement of the Greek health care system.

This affiliation of Hellenic biomedical societies organizes an annual conference in Greece or Cyprus which offers continuing medical and bioscientific education to the participants and opens channels for basic and clinical biomedical research in Greece and among the Hellenic professionals outside Greece.

This year, I am particularly pleased to join you in honoring with the Distinguished Career Award Dr. Roy Vagelos whose prominent scientific contribution and commitment to Hellenism have justly earned him our respect and recognition.

This year, we hope a charter of GHMBN based on the 2007 Kos Declaration will be ratified by the Hellenic Parliament. This organization brings the homogeneity close to Greece and the influence of the united biomedical homogeneity which is based on meritocracy and transparency is strengthening the support of Greece’s national issues.

At this congress of Global Hellenic Medical & Biosciences Network, I would like to express my best wishes for continued success to the work of all members of the Global Hellenic Medical & Biosciences Network.

Congratulations!

With patriotic regards,

Spyros G.E. Mezitis, MD, PhD
President
Dear Colleagues, Dear Friends, Fellow Hellenes,

It is a great honor and a distinct pleasure to welcome you to the Third Congress of the Global Hellenic Medical & Biosciences Network Meeting. As a member of the organizing committee I would like to thank all of you who responded to our invitation to participate in an event and a network that holds great promise for the advancement of Science and of Hellenism.

Hellenes have been, at the same time, a united and divided nation since antiquity. United by language, values, and heritage, and divided by geography. At any given time point, up to half of the Hellenes have lived outside the geographic boundaries of Greece. This has given us a rich foundation of knowledge and a unique advantage in having a global understanding of various matters, being more adaptable to adversities and becoming early on citizens of the world.

At the same time it created an eternal nostalgia and a strong desire to maintain ties with the Motherland. It is this desire that we fulfill today by participating in the Global Hellenic Medical & Biosciences Network, whose aim is to promote cooperation among Hellene health scientists from around the world and establish links with Biomedical Academic Institutions in Greece.

I am confident that during this meeting we will all realize the potential this initiative holds and seize this historic opportunity to solidify our ties, enrich our knowledge and affirm the greatness of Hellenism.

George John Tsioulas, MD, PhD, FACS
President, Hellenic Medical Society of New York
The Hellenic Medical Association of Quebec was founded almost 20 years ago with the goal of bringing together the physicians of Hellenic origin in the province of Quebec in an attempt to better serve the Greek-speaking population. Today the Association numbers approximately 150 members of physicians and pharmacists, including medical residents and students. Every year we organize a major conference of interest to the public, open to all but mainly aimed to the needs of our large and vibrant community. We also organize every 2 years a conference in Greece, in collaboration with a local Medical Association and a medical school. Many of our members are extremely active in the public life in Quebec and Canada and we are all interested to further our ties with Greece. We are looking forward to a long and fruitful collaboration with the medical and biomedical Diaspora for many years to come.

Thank you very much

E. Lila Amirali, MD, FRCPC
Child and Adolescent Psychiatrist
Assistant Professor, McGill University
Medical Director
Pediatric Psychiatric Care Program
Montreal Children’s Hospital
McGill University Health Centre
President
Hellenic Medical Association of Quebec

Best wishes to all delegates and participants in the 3rd congress of the Global Hellenic Medical & Biosciences Network. Also congratulations to all those who assisted in the planning and organization of this fine meeting. I wish the organization success in pursuing its mission and expanding its influence throughout the world to include those Hellenes who for the most part have been forgotten.

Charles Kanakis, Jr., MD FACC
Director of Medical Affairs of HelleniCare
Dear organizers and participants,

The board and I wish to convey our sincere congratulations on the organization of the 3rd congress of the Global Hellenic Medical & Biosciences Network. The dedication of the Greek government and medical Diaspora to convene this conference emphasizes the Hellenic ideal “In Unity, There is Strength”.

At the conference, we look forward to attending the many excellent medical presentations and participating in networking with physicians and scientist from around the world. Through such exchanges, a closer connection of Greek medical and biomedical community to the Diaspora may be fostered and ultimately a closer tie to Greece herself.

We look forward to meeting many of you at the conference and to supporting endeavors that will benefit Hellenes, both native and abroad.

Sincerely,

Elias A. Iliadis, MD FACC
President, Hellenic Medical Society of Philadelphia
Director, Peripheral Vascular Program, Cooper University Hospital
Assistant Professor of Medicine, Robert Wood Johnson Medical School
KOS FOUNDING DECLARATION
Global Hellenic Medical Network Founding Forum
(June 10th, 2007)

PREFACE

The Global Doctors Network Founding Forum was held at Kos between the 7th and the 10th of June under the auspices of the Hellenic Ministry of Health & Social Solidarity.

In the Era of Globalization, Hellenism contemplates the Historic Horizon with optimism, vigor and confidence since a wide and well developed global network of distinguished Hellenes exists in all Disciplines including Art, Science, Business and Politics.

In the front line, Greek Medical Doctors from all over the world who have been credited for their excellence in Research and in applied Medical Science comprise a remarkable group that reflects the entity of Modern Greece. They also compel Global Hellenism to assume its own responsibilities as pertaining to the collaboration among the Doctors of Diaspora themselves and among them and the Greek and Cypriot States.

The Greek Minister of Health & Social Solidarity Mr. Dimitris Avramopoulos has taken the initiative to bring together these Doctors at Kos, the homeland of Hippocrates and in liaison with the Government of Cyprus have established the Global Hellenic Medical Network. Thus, the collaboration among the Helladic and Cypriot Scientists will be enhanced.

The Greek Doctors from around the world, the successors of Hippocrates, Asclepius and recently of George Papanicolaou and other Medical Science moguls, either famous or unknown, lay the foundations of a new Era and forge, with this declaration, the bonds of unity and solidarity, therefore, contributing to an enhanced profile of the modern Hellenism around the globe.

From this perspective, the Greek Doctors from all over the world demonstrate their belief and their determination in terms of setting goals and general rules of organization and creating administrative structures.
ΙΔΡΥΤΙΚΗ ΔΙΑΚΗΡΥΞΗ ΤΗΣ ΚΩ
Για τη θεμελίωση του Παγκοσμίου Δικτύου Ελλήνων Γιατρών
(10 ΙΟΥΝΙΟΥ 2007)

ΠΡΟΟΙΜΙΟ

Me πρωτοβουλία και υπό την αιγίδα του Υπουργείου Υγείας & Κοινωνικής Αλληλεγγύης της Ελλάδας, συνήλθε στην Κω, από 7 έως 10 Ιουνίου, το Ιδρυτικό Συνέδριο του Παγκοσμίου Δικτύου των Ελλήνων Ιατρών.

Στην εποχή της παγκοσμιοποίησης ο Ελληνισμός, με ένα ευρύ, ανεπτυγμένο δίκτυο διακεκριμένων Ελλήνων σε όλους τους τομείς, δημιουργίας, στα γράμματα, τις τέχνες, τις επιστήμες, την επικαιροποιημένη πολιτική, τον πολιτισμό, στην πολιτική, αποκαλύπτει τον ιστορικό ορίζοντα με αισιοδοξία, δυναμισμό και αυτοπεποίθηση.

Στην πρώτη γραμμή, οι Έλληνες γιατροί του κόσμου, με εύσημα και διακρίσεις στην έρευνα, στην εφαρμογή της αθηναϊκής, αποτελούν ένα ξεχωριστό κομμάτι του Ελληνισμού, το οποίο αναδεικνύει τον ιστορικό ορίζοντα με αισιοδοξία, δυναμισμό και αυτοπεποίθηση.

Τις διάσπαρτες ανά τον κόσμο αυτές δυνάμεις της αθηναϊκής επιστήμης, ενώνουν στην Κω, πατρίδα του Ιπποκράτη, η πρωτοβουλία της ελληνικής πολιτείας και ειδικότερα, του Υπουργού Υγείας & Κοινωνικής Αλληλεγγύης, κ. Δημήτρη Αβραμόπουλου, προχωρώντας, και σε συνεργασία με την Κυπριακή Κυβέρνηση, στην ίδρυση του Παγκοσμίου Δικτύου των Ελλήνων Ιατρών (Global Hellenic Medical Network), συμβάλλουν στην ενδυνάμωση της παρουσίας του σύγχρονου Ελληνισμού στο οικουμενικό τοπίο.

Οι Έλληνες Ιατροί όλου του Κόσμου διαδηλώνουν την πεποίθησή τους και την αποφασιστικότητά τους, μέσα στην προοπτική αυτή και θέτουν στόχους, οργανωτικές δομές και κανόνες λειτουργίας.
I. Goals of the Network

1. Communication among the network’s doctors regarding the pursuit of Hellenic Medical Values in the global medical system:
   - Hippocratic Oath
   - History of Medicine
   - Medical Ethics
   - Research Ethics
   - Academic Excellence
   - Medical Care
   - Humanism and
   - Social Solidarity

2. Collaboration with respective Greek authorities, public or private, conducting administrative, academic and research oriented activities in Greece and Cyprus.

3. Acting at the suggestion of the Greek Minister of Health & Social Solidarity, establishment of an International Prize for Excellence in Medical Research in memory of Dr. George Papanicolaou. This will be awarded by the President of either the Hellenic or the Cypriot Republic in Greece or Cyprus respectively every other year within the framework of the Global Hellenic Medical Network Forum. The first Forum that will host the Prize ceremony will be held in Cyprus during the summer of 2008.

4. Collaborating with Greek and Cypriot authorities, for the improvement of the methods regarding the development and advancement of the hospital infrastructure as well as the establishment of joint programs of continuing medical education, periodical laboratory modernization, linkage of the hospitals and clinics through the Internet and general guideline implementation regarding diagnostic and therapeutic algorithms for more effective medical care and enhancement of the healthcare systems.

5. Study of the meaning of Globalization regarding the incidence and spread of infectious diseases and chronic illnesses, which pose a risk to the Public Health, and the formation of modern prevention strategies.

6. Collaboration with international Health Organizations and proper response to the humanistic, social and academic needs of the Diaspora Communities.
I. ΣΤΟΧΟΙ

1. Η επικοινωνία των Ελλήνων Ιατρών του Εξωτερικού, στο παγκόσμιο δίκτυο για την προώθηση των αξιών της Ελληνικής Ιατρικής στο Παγκόσμιο Ιατρικό Σύστημα:

- Ιπποκράτειος Όρκος
- Ιστορία της Ιατρικής
- Ιατρική Ηθική
- Ηθική στην Έρευνα
- Διάκριση στην Ιατρική Επιστήμη
- Ιατρική Φροντίδα
- Ανθρωπισμός
- Κοινωνική Αλληλεγγύη

2. Η συνεργασία με τους αντίστοιχους ελληνικούς φορείς, δημόσιους και ιδιωτικούς, που επιτελούν διοικητικό, ακαδημαϊκό και ερευνητικό έργο στην Ελλάδα και στην Κύπρο.

3. Η καθιέρωση, μετά από εισήγηση του Υπουργού Υγείας & Κοινωνικής Αλληλεγγύης, Διεθνούς Βραβείου με την ονομασία «Γεώργιος Παπανικολάου», που θα απονέμεται αντίστοιχα από τους Πρόεδρους της Ελληνικής και Κυπριακής Δημοκρατίας κάθε δυο χρόνια, στο πλαίσιο του Παγκόσμιου Συνεδρίου των Ελλήνων Ιατρών, που θα διοργανώνεται ανά διετία και κάθε δυο χρόνια στην Ελλάδα και την Κύπρο. Το πρώτο τακτικό Παγκόσμιο Συνέδριο θα διοργανωθεί το 2008 στην Κύπρο.

4. Η προώθηση από κοινού με τους φορείς της Ελλάδος και της Κύπρου, μεθόδων ανάπτυξης και εξέλιξης της νοσοκομειακής υποδομής καθώς και η καθιέρωση κοινών προγραμμάτων συνεχιζόμενης Ιατρικής Εκπαίδευσης, προγραμμάτων περιοδικού εκσυγχρονισμού εργαστηρίων, διασύνδεσης κλινικών μέσω του Διαδικτύου και γενικών οδηγιών επί διαγνωστικών και θεραπευτικών αλγοριθμών για αποδοτικότερη περίθαλψη αλλά και για την ενίσχυση των Εθνικών Συστημάτων Υγείας.

5. Η διερεύνηση της σημασίας της παγκοσμιοποίησης στην επίπτωση και εξάπλωση των λοιμωδών νοσημάτων, των χρόνιων νόσων που εξελίσσονται απειλητικά για τη δημόσια υγεία αλλά και για την ανάπτυξη σύγχρονων πολιτικών πρόληψης.

6. Η συνεργασία με διεθνείς οργανισμούς υγείας και την ανταπόκριση στις ανθρωπιστικές κοινωνικές και εκπαιδευτικές ανάγκες των κατά τόπους ομογενειακών κοινοτήτων.
II. Organizational Structures

1. The International Council of the Network will be formed, which will coordinate the activities of the Forum. In the Council, presidents of local medical societies, federations and associations have been represented as well as delegates representing similar authorities from Greece and Cyprus. Honoris Causa, the World Council of Hellenes Abroad will be represented as well.

The number of the members will be determined by the Presidents of the Medical Societies who participated in the Kos Founding Forum. The Medical Societies are the following:

- Hellenic Medical Society of New York
- Hellenic Medical Society of Australia, Asia
- Federation of Hellenic Medical Societies of North America
- Hellenic American Medical & Dental Society of Southern California
- Hellenic Medical Society of Pennsylvania
- Hellenic Medical Society of Quebec, Canada
- Hellenic Medical Society of Toronto, Canada
- Hellenic Medical Society of Chicago
- Hellenic Medical Society of New Jersey
- Hellenic Medical Society of Texas
- Hellenic Medical Society of United Kingdom
- Hellenic Medical Society of Austria
- Hellenic American Medical & Dental Society of New England
- Hellenic Scientists Society of Renania-Westphalia
- World Hellenic Biomedical Association (WHBA)

2. Introduction of an Executive Board of the Global Hellenic Medical Network composed of eleven members. The temporary Executive Committee will be composed of the following: George Dangas (New York), Stelios Vogiatzis (Australia), Evangelia –Lila– Amirali (Quebec, Canada), Dennis Karalis (Chicago), Spyros Mezitis (Federation of N. America), Maria Michas (Texas), Olga Sarantopoulos (Austria - SAE), George Groulakos (UK), Zois Vrettos (Germany). Later complemented with inclusion of Kostandinos Drosatos (HBA-USA).

The representative members of the Executive Board will be designated by the Presidents of the Founding Medical Associations of this Forum.

3. The plan of action of the two organizational bodies described above will be announced and approved by the Forum every two years.

4. A dedicated Executive Secretariat will be formed under the direction of the Board and the auspices of the Hellenic Ministry of Health & Social Solidarity.
II. Οργανωτικές Δομές

1. Συστήνεται Διεθνές Συμβούλιο του Παγκοσμίου Δικτύου Ελλήνων Ιατρών που θα συντονίζει τις δραστηριότητες του νέου θεσμού. Στο Διεθνές Συμβούλιο εκπροσωπούνται οι πρόεδροι εταιρειών, ομοσπονδιών, ενώσεων, συλλόγων ιατρών στον κόσμο, καθώς και εκπρόσωποι αντίστοιχων φορέων από την Ελλάδα και την Κύπρο και τιμής ένεκεν το Συμβούλιο Αποδήμου Ελληνισμού.

Ο αριθμός των τακτικών μελών θα καθοριστεί από τους Προέδρους των ιατρικών εταιρειών που συμμετέχουν στο ιδρυτικό συνέδριο της Κω οι οποίες είναι οι ακόλουθες:

- Ελληνική Ιατρική Εταιρεία Νέας Υόρκης
- Ελληνική Ιατρική Εταιρεία Αυστραλίας-Ασίας
- Ομοσπονδία Ελληνικών Ιατρικών Εταιρειών της Βορείου Αμερικής
- Ελληνοαμερικανική Ιατρική και Οδοντιατρική Εταιρεία Νότιου Καλιφόρνιας
- Ελληνική Ιατρική Εταιρεία της Πενσυλβάνια
- Ελληνική Ιατρική Εταιρεία του Κεμπέκ, Καναδά
- Ελληνική Ιατρική Εταιρεία του Τορόντο, Καναδά
- Ελληνική Ιατρική Εταιρεία του Σικάγο
- Ελληνική Ιατρική Εταιρεία του Νιού Τζέρσεϋ
- Ελληνική Ιατρική Εταιρεία του Τέξας
- Ελληνική Ιατρική Εταιρεία του Ηνωμένου Βασιλείου
- Ελληνική Ιατρική Εταιρεία Αυστρίας
- Ελληνική Ιατρική και Οδοντιατρική Εταιρεία της Νέας Αγγλίας
- Εταιρεία Ελλήνων Επιστημόνων Ρηνανίας-Βεστφαλίας
- Παγκόσμια Ελληνική Βιοϊατρική Εταιρεία

2. Συστήνεται Εκτελεστική Επιτροπή του Διεθνούς Συμβουλίου του Παγκοσμίου Δικτύου Ελλήνων Ιατρών, αποτελούμενη από ένδεκα μέλη. Η προσωρινή εκτελεστική επιτροπή αποτελείται από τους: Γιώργο Ντάγγα (Νέα Υόρκη), Στέλιο Βογιατζή (Αυστραλία), Ευαγγελία - Λίλα - Αμιράλ (Κεμπέκ - Καναδάς), Διονύσιο Καραλή (Σικάγο), Σπύρο Μεζίτη (Ομοσπονδία Β. Αμερικής), Μαρία Μίκα (Τέξας), Όλγα Σαραντοπούλου (Αυστρία και Σ.Α.Ε.), Γεώργιο Παναγή (Παγκόσμια Ελληνική Βιοϊατρική Εταιρεία). Επιπλέον και αργότερα ο Κωνσταντίνος Δροσάτος (Ελληνική Βιοϊατρική Εταιρεία ΗΠΑ).

3. Τα μέλη της εκτελεστικής επιτροπής θα ορίζονται από τους Προέδρους των ιδρυτικών ιατρικών εταιρειών του Συνεδρίου.

4. Το πρόγραμμα δράσης των δύο παραπάνω οργάνων θα ανακοινώνεται και θα εγκρίνεται από το Παγκόσμιο Συνέδριο ανά διετία.
III. Actions

1. Circulation of a Medical Newsletter electronically around the world.

2. Consultation with the academic and administrative authorities of Greece and Cyprus regarding the enhancement of the competitive allocation of European Union medical research grants.

3. Improvement of the cooperation for Bio-Medical Research among Researchers from Greece, Cyprus or the Diaspora on a constant basis through the formation of an institutional framework and the elaboration of incentives for the development of new research projects.

4. Communication with medical student associations from around the world aiming to the formation of global networks for exchange of knowledge and know-how.

5. Fostering of post-graduate Continuing Medical Education for physicians in Greece including exchange programs.

6. Utilization of the talents of isolated scientists within the Greek Global Network through medical associations.

7. Establishment of an ongoing collaboration and communication with the Hellenic Health Council aiming at the implementation of a long-term relationship.

The Greek Doctors abroad and the founding members of this Forum would like to acknowledge the Greek Government for the successful organization of the Global Medical Network Founding Forum held in Kos.

They welcome the initiative of the Greek Minister of Health & Social Solidarity, Mr. Dimitris Avramopoulos and the immediate response of the Cypriot Minister of Health, Mr. Charis Charalambous, who they pronounce as lifetime HONORARY FELLOWS of the Global Hellenic Medical Network.

They enounce that with today’s Founding Act, a new chapter is forming for the Ecumenical Hellenism and the Greeks of the Diaspora, for the cooperation and promotion of the goals of the Global Hellenic Community.
III. Δράσεις

1. Η κυκλοφορία ιατρικού ενημερωτικού δελτίου μέσα από τα ηλεκτρονικά μέσα σε όλο τον κόσμο.

2. Η διαβούλευση με τις ακαδημαϊκές και διοικητικές αρχές της Ελλάδας και της Κύπρου για την προώθηση επικοινωνιών από την Ευρωπαϊκή Επιτροπή για την ιατρική έρευνα.

3. Η ανάπτυξη συνεργασιών για θέματα επιστημονικής ιατρο-βιολογικής έρευνας μεταξύ ερευνητών της Διασποράς και της Ελλάδας και της Κύπρου σε συνεχή βάση, μέσα από τη δημιουργία ειδικού θεσμικού πλαισίου και την εκπόνηση κινητηρών για την ανάπτυξη νέων ερευνητικών προγραμμάτων.

4. Η επικοινωνία με ενώσεις Ελλήνων φοιτητών της ιατρικής ανά τον κόσμο για τη δημιουργία διεθνών δικτύων τεχνογνωσίας και επιστημονικής.

5. Η ενθάρρυνση της προώθησης των Ελλήνων Ιατρών σε εκπαιδευτικό επίπεδο συμπεριλαμβανομένων και προγραμμάτων ανταλλαγής.

6. Η ενθάρρυνση της συνεχιζόμενης ιατρικής εκπαίδευσης των Ελλήνων Ιατρών σε ακαδημαϊκό επίπεδο συμπεριλαμβανομένων και προγραμμάτων ανταλλαγής.

7. Η θεμελίωση συνεργασίας με το ΚΕΣΥ και την εγκατάσταση διαρκούς επικοινωνίας με την προοπτική ολοκλήρωσης στο μέλλον μίας θεωρητικής σχέσης.

Οι Έλληνες Ιατροί του Εξωτερικού και τα ιδρυτικά μέλη του Συνεδρίου, εκφράζουν τις ευχαριστίες τους στην ελληνική κυβέρνηση για την επιτυχία της ιδρυτικής πράξης του Παγκόσμιου Δικτύου των Ελλήνων Ιατρών.

Χαιρετίζουν την πρωτοβουλία του Όργανου Υπουργικής Υγείας του Παγκόσμιου Δικτύου των Ελλήνων Ιατρών και του ΚΕΣΥ για την ενθάρρυνση της συνεργασίας και την προώθηση των στόχων της Παγκόσμιας Ιατρικής Κοινότητας.
Organizational Committee

Chair: George D. Dangas
Members: George J. Tsioulias (New York), Stelios Vogiatzis (Australia), Evangelia –Lila– Amirali (Quebec, Canada), Dennis Karalis (Chicago), Spyros Mezitis (Federation of N. America), Maria Michas (Texas), Olga Sarantopoulos (Austria - SAE), George Geroulakos (UK), Zois Vrettos (Germany), Nikandros Bouras (WHBA), Konstandinos Drosatos (HBA-USA).

Participating Societies

- World Congress of Hellenes Abroad
- Australasian Hellenic Healthcare Association
- Federation of Hellenic Medical Societies of North America
- Hellenic American Medical and Dental Society of Southern California
- Hellenic Medical Association of Pennsylvania
- Hellenic Medical Association of Quebec, Canada
- Hellenic Medical Society of Chicago
- Hellenic Medical Society of New Jersey
- Hellenic Medical Society of Texas
- Hellenic Medical Society of the United Kingdom
- New England Hellenic Medical and Dental Society
- World Hellenic Biomedical Association

Hellenic Medical Society of New York
Executive Board 2009-2010

- George J. Tsioulias, M.D. PhD., President
- John Xethalis, M.D., First Vice-President/Finance
- Andreas Koutras, M.D., Second Vice-President
- George Carayannopoulos, M.D., PhD., Secretary
- Helen Gouzoulis, M.D., Assistant Secretary
- Andreas Cosmatos, M.D., Treasurer
- Florentia Christodoulidou, M.D., Assistant Treasurer
- George D. Dangas, M.D. PhD., Past President
Οργανωτική Επιτροπή Συνεδρίου

Πρόεδρος: Γεώργιος Δ. Ντάγας
Μέλη: Γιώργος Ι. Τσιούλιας (Νέα Υόρκη), Στέλιος Βογιατζής (Αυστραλία), Ευαγγελία –Λίλα– Αμιράλη (Κεμπέκ - Καναδάς), Διονύσιος Καραλής (Σικάγο), Σπύρος Μεζίτης (Ομοσπονδία Β. Αμερικής), Μαρία Μίχα (Τέξας), Όλγα Σαραντοπούλου (Αυστρία και Σ.Α.Ε.), Γεώργιος Γερουλάκος (Ηνωμένο Βασίλειο), Ζώνη Βρεττός (Γερμανία), Νίκανδρος Μπούρας (Παγκόσμια Ελληνική Βιοϊατρική Εταιρεία), Κωνσταντίνος Δροσάτος (Ελληνική Βιοϊατρική Εταιρεία ΗΠΑ).

Συμμετέχουσες Εταιρείες

• Παγκόσμιο Συμβούλιο Απόδημου Ελληνισμού
• Ελληνική Ιατρική Εταιρεία Αυστραλίας-Ασίας
• Ομοσπονδία Ελληνικών Ιατρικών Εταιρείων της Βορείου Αμερικής
• Ελληνοαμερικανική Ιατρική και Οδοντιατρική Εταιρεία Νοτίου Καλιφόρνιας
• Ελληνική Ιατρική Εταιρεία της Κεμπέκ, Καναδά
• Ελληνική Ιατρική Εταιρεία του Κέντρου, Βόρειος Καναδάς
• Ελληνική Ιατρική Εταιρεία του Νιού Τζέρσεϋ
• Ελληνική Ιατρική Εταιρεία του Μποστρούπολ
• Ελληνική Ιατρική Εταιρεία της Καναδάς
• Ελληνική Ιατρική Εταιρεία της Νέας Υόρκης
• Ελληνική Ιατρική Εταιρεία της Πενσυλβάνιας
• Ελληνική Ιατρική Εταιρεία της Ροστάντοπολ
• Ελληνική Ιατρική Εταιρεία του Ιταλίου Κέντρου
• Ελληνική Ιατρική Εταιρεία του Σικάγο
• Ελληνική Ιατρική Εταιρεία του Ηνωμένου Βασιλείου
• Ελληνική Ιατρική και Οδοντιατρική Εταιρεία της Νέας Αγγλίας
• Παγκόσμια Ελληνική Βιοϊατρική Εταιρεία

Ελληνική Ιατρική Εταιρεία της Νέας Υόρκης

Πρόεδρος: Γεώργιος Δ. Ντάγας, MD, PhD, Πρόεδρος
Πρώτος Αντιπρόεδρος: Ιωάννης Ξεθάλης, Πρώτος Αντιπρόεδρος: Χρήστος Ευθυγιάννης
Δεύτερος Αντιπρόεδρος: Κωνσταντίνος Δροσάτος, Γραμματέας: Ιωάννης Ξεθάλης
Βοηθός Γραμματέας: Ανδρέας Κούτρας
Ταμίας: Ανρέας Κοσμάτος
Βοηθός Ταμίας: Φλωρεντία Χριστοδουλίδου
Τέως Πρόεδρος: Γεώργιος Δ. Ντάγας, MD, PhD, Πρόεδρος

Διοικητικό Συμβούλιο 2009-2010

• Γεώργιος Δ. Ντάγας, MD, PhD, Πρόεδρος
• Ιωάννης Ξεθάλης, MD, Πρώτος Αντιπρόεδρος/Οικονομικά
• Ανδρέας Κούτρας, MD, Δεύτερος Αντιπρόεδρος
• Ιωάννης Δημοκράτης, MD, PhD, Γραμματέας
• Αλέξης Μελαντεος, MD, Ταμίας
• Ανδρέας Κοσμάτος, MD, Ταμίας
• Φλωρεντία Χριστοδουλίδου, MD, Βοηθός Ταμία
• Γεώργιος Δ. Ντάγας, MD, PhD, Τέως Πρόεδρος
ΕΚΠΡΟΣΩΠΟΥΜΕΝΕΣ ΧΩΡΕΣ ΠΡΟΕΛΕΥΣΗΣ ΣΥΝΕΔΡΩΝ ΕΛΛΗΝΙΚΗΣ ΚΑΤΑΓΩΓΗΣ / REPRESENTED COUNTRIES BY PARTICIPANTS OF HELLENIC DESCENT

Αίγυπτος / Egypt
Αργεντινή / Argentina
Αυστρία / Austria
Βραζιλία / Brazil
Γαλλία / France
Γερμανία / Germany
Ελβετία / Switzerland
Ελλάδα / Greece
Ηνωμένο Βασίλειο / United Kingdom
Ηνωμένες Πολιτείες Αμερικής / United States of America
Ισραήλ / Israel
Ιταλία / Italy
Καναδάς / Canada
Κύπρος / Cyprus
Ουγγαρία / Hungary
Ρωσία / Russia
Σαουδική Αραβία / Saudi Arabia
Τουρκία / Turkey
Τσεχία / Czech Republic
Φινλανδία / Finland
Χιλή / Chile
CONGRESS PROGRAMME

WEDNESDAY, SEPTEMBER 2, 2009

Arrival and Registration

THURSDAY, SEPTEMBER 3, 2009

1st Session – Cosmos Hall

9:00 – 10:15 a.m.

Moderators: George D. Dangas, George J. Tsioulias

Welcome Remarks

Nick Bouras
World Hellenic Biomedical Association

Kyriakos Kanakis
HelleniCare

Apostolos Veizis
Doctors Without Borders / Midecs Sans Frontières (MSF)

Medical Residency & Fellowship Training Abroad

EUROPEAN UNION
Nick Bouras, Professor Emeritus of Psychiatry, Institute of Psychiatry, King’s College, London, United Kingdom

USA
George D. Dangas, Associate Professor of Medicine (Cardiovascular Disease), Columbia University Medical Center, New York, USA

JAPAN
George J. Tsioulias, Assistant Professor, Mount Sinai Medical School, New York, USA

CANADA
Evangelia (Lila) Amirali, Assistant Professor of Medicine, McGill University, Montreal, Canada

“How to Prepare the Next Generation of Young Medical Leaders”
Nikos Sikloglou, President of Aristotle Education Foundation, Rome, Italy

Discussion

10:15 – 10:30 a.m. Coffee Break
ΠΡΟΓΡΑΜΜΑ ΣΥΝΕΔΡΙΟΥ

ΤΕΤΑΡΤΗ 2 ΣΕΠΤΕΜΒΡΙΟΥ 2009

Αφίξεις και Εγγραφές Συνεδρίων

ΠΕΜΠΤΗ 3 ΣΕΠΤΕΜΒΡΙΟΥ 2009

1η Συνεδρίαση – Αίθουσα Cosmos

9:00 – 10:15 π.μ.

Προεδρείο: Γεώργιος Δ. Ντάγας, Γεώργιος Ι. Τσιούλιας

Εναρκτήριοι Χαιρετισμοί

Νίκανδρος Μπούρας
Παγκόσμιος Σύνδεσμος Ελλήνων Βιοεπιστημόνων

Κυριάκος Κανάκης
Ελληνική Φροντίδα (HelleniCare)

Απόστολος Βεΐζης
Γιατροί Χωρίς Σύνορα

Ιατρική Εξειδίκευση στο Εξωτερικό

ΕΥΡΩΠΑΪΚΗ ΕΝΩΣΗ
Νίκανδρος Μπούρας, Ομότιμος Καθηγητής Ψυχιατρικής του Ινστιτούτου Ψυχιατρικής του Πανεπιστημίου King’s College, Λονδίνο, Ηνωμένο Βασίλειο

ΗΠΑ
Γεώργιος Δ. Ντάγας, Αναπληρωτής Καθηγητής Ιατρικής - Καρδιολογίας, Ιατρικό Κέντρο Πανεπιστημίου Columbia, Νέα Υόρκη, ΗΠΑ

ΙΑΠΟΝΙΑ
Γεώργιος Ι. Τσιούλιας, Επίκουρος Καθηγητής Ιατρικής Σχολής Mount Sinai, Νέα Υόρκη, ΗΠΑ

ΚΑΝΑΔΑΣ
Ευαγγελία (Λίλα) Αμιράλη, Επίκουρη Καθηγήτρια Ιατρικής Πανεπιστημίου McGill, Μόντρεαλ, Καναδάς

«Προετοιμασία της Νέας Γενιάς Ιατρών»
Νίκος Σικλόγλου, Πρόεδρος Αριστοτέλειου Ιδρύματος, Ρώμη, Ιταλία

Συζήτηση

10:15 – 10:30 π.μ. Διάλειμμα
2nd Session – Cosmos Hall

10:30 – 11:30 a.m.

Basic Research Abroad

Moderators: Kostas Drosatos, Dimitri Nanopoulos

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

Discussion

11:30 – 12:00 a.m. Coffee Break
2η Συνεδρίαση – Αίθουσα Cosmos

10:30 – 11:30 π.μ.

Βασική Έρευνα στο Εξωτερικό

Προεδρείο: Κώστας Δροσάτος, Δημήτρης Νανόπουλος

Ερευνητικές Προοπτικές & Δυνατότητες Χρηματοδότησης στην Ευρωπαϊκή Ένωση
Λούλα Σιγάλα, Εθνικό Σημείο Αναφοράς για τα Ερευνητικά Προγράμματα Κινητικότητας / Ανταλλαγών στην Ελλάδα, Εθνικό Ίδρυμα Ερευνών, Αθήνα, Ελλάδα

Ερευνητικές Προοπτικές στις ΗΠΑ
Νικόλαος Τουρίδης, Εκπαιδευτικός Σύμβουλος, Ίδρυμα Fulbright, Αθήνα, Ελλάδα

Κλινική Έρευνα και Ανάπτυξη Νέων Θεραπευτικών Μεθόδων
Άγγελος Μ. Στεργίου, Genesis BioPharmaGroup, Κλινική Έρευνα & Ανάπτυξη και Ιατρικές Υποθέσεις, Νέα Υόρκη, ΗΠΑ

Μελλοντικές Προοπτικές στην Ελλάδα
Δημήτρης Νανόπουλος, Τακτικό Μέλος Ακαδημίας Αθηνών, Διακεκριμένος Καθηγητής Φυσικής, Πανεπιστήμιο Τέξας A&M, ΗΠΑ

Συζήτηση

11:30 – 12:00 π.μ. Διάλειμμα
OFFICIAL OPENING CEREMONY OF THE 3rd WORLD CONGRESS OF THE GLOBAL HELLENIC MEDICAL & BIOSCIENCES NETWORK

Cosmos Hall

12:00 – 15:00 p.m.

Speech from the Minister of Health and Social Solidarity
Mr. Dimitris Avramopoulos

Official Opening of the Congress by the President of the Hellenic Republic
Dr. Karolos Papoulias

Welcome Address from the President of the Hellenic Parliament
Mr. Dimitris Sioufas

Welcome Address from the Minister of Health of the Republic of Cyprus
Mr. Christos Patsalidis

Distinguished Career Achievement Award Ceremony to
Dr. Roy Vagelos

Welcome Address from the President of the Global Hellenic Medical & Biosciences Network
Mr. George D. Dangas

10 Minutes Break

Welcome Address from the Member of the Hellenic Parliament & President of the Standing Committee on Social Affairs of the Hellenic Parliament
Mr. Panagiotis Melas

Welcome Address from the Member of the Hellenic Parliament, Professor of Descriptive Anatomy of the Medical School of the University of Athens, Member of the Committee of Greeks Abroad of the Hellenic Parliament
Mr. Panagiotis Skandalakis

Welcome Address from the President of the Central Health Council (KESY)
Mr. Kyriakos Striggaris
ΕΠΙΣΗΜΗ ΤΕΛΕΤΗ ΕΝΑΡΞΗΣ 3ου ΣΥΝΕΔΡΙΟΥ ΤΟΥ ΠΑΓΚΟΣΜΙΟΥ ΔΙΚΤΥΟΥ ΕΛΛΗΝΩΝ ΙΑΤΡΩΝ & ΒΙΟΕΠΙΣΤΗΜΟΝΩΝ

Αίθουσα Cosmos

12:00 – 15:00 μ.μ.

Ομιλία από τον Υπουργό Υγείας & Κοινωνικής Αλληλεγγύης κ. Δημήτρη Αβραμόπουλο

Επίσημη Κήρυξη Έναρξης Συνεδρίου από τον Πρόεδρο της Ελληνικής Δημοκρατίας Κ. Κάρολο Παπούλια

Χαιρετισμός από τον Πρόεδρο της Βουλής των Ελλήνων κ. Δημήτρη Σιούφα

Χαιρετισμός από τον Υπουργό Υγείας της Κυπριακής Δημοκρατίας κ. Χρίστο Πατσαλίδη

Απονομή Βραβείου Διακεκριμένης Επιστημονικής Πορείας & Επιτευγμάτων στον Dr. Roy Vagelos

Χαιρετισμός από τον Πρόεδρο του Παγκοσμίου Δικτύου Ιατρών & Βιοεπιστημόνων κ. Γεώργιο Δ. Ντάγγα

Διάλλειμα 10 λεπτών

Χαιρετισμός από το Βουλευτή και Πρόεδρο της Επιτροπής Κοινωνικών Υποθέσεων της Βουλής των Ελλήνων κ. Παναγιώτη Μελά

Χαιρετισμός από το Βουλευτή, Καθηγητή Περιγραφικής Ανατομικής Ιατρικής Σχολής Πανεπιστημίου Αθηνών, Μέλος της Επιτροπής Ελληνισμού της Διασποράς της Βουλής των Ελλήνων κ. Παναγιώτη Σκανδαλάκη

Χαιρετισμός από τον Πρόεδρο του Κεντρικού Συμβουλίου Υγείας κ. Κυριάκο Στριγάρη
“Confronting the Pandemic of the New Flu: A Challenge for Public Health”
Eleni Giamarellou
President of the National Scientific Committee of the Pandemic & Professor of Pathology – Infectologist of the Medical School of the University of Athens

“The Consequences of Smoke to Public Health”
Panagiotis Bechrakis
President of the National Coordination Committee for Smoking “Spyros Doxiadis – Giorgos Gennimatas”, Assistant Professor of the Physiology of Respiration of the Medical School of the University of Athens

George J. Tsioulias
President of the Hellenic Medical Society of New York, USA

Andrew Athens
President of HelleniCare, Honorary President of the World Council of Hellenes Abroad, USA

Stephanos Geroulanos
President of the Hippocrateion Foundation, Greece

Spyros Mezitis
President of the Federation of Medical Societies of North America, USA

Konstantinos Drosatos
President of the Hellenic Association of Bioscientists, USA

Ioannis Giannikopoulos
Ex President of the Hellenic Medical & Dental Company of South California, USA

Hara Margari
President of the Hellenic Society of Cytology, Greece

Theano Tselepi Heidinger
President of the Hellenic Medical Society of Austria, Austria

Olga Sarantopoulou
President of the Hellenic Society of Scientists & Entrepreneurs of Austria, Secretary of the World Council of Hellenes Abroad, Austria
«Αντιμετωπίζοντας την Πανδημία της Νέας Γρίπης: Μια Πρόκληση για τη Δημόσια Υγεία»
Ελένη Γιαμαρέλλου
Πρόεδρος της Εθνικής Επιστημονικής Επιτροπής Πανδημίας & Καθηγήτρια Παθολογίας – Λοιμωξιολόγος Ιατρικής Σχολής Πανεπιστημίου Αθηνών

«Οι Επιπτώσεις του Καπνού στη Δημόσια Υγεία»
Παναγιώτης Μπεχράκης
Πρόεδρος Εθνικής Συντονιστικής Επιτροπής για το Κάπνισμα «Σπύρος Δοξιάδης – Γιώργος Γεννηματάς», Αναπληρωτής Καθηγητής Φυσιολογίας της Αναπνοής Ιατρικής Σχολής Πανεπιστημίου Αθηνών

Γεώργιος Ι. Τσιούλιας
Πρόεδρος Ελληνικής Ιατρικής Εταιρείας Νέας Υόρκης, ΗΠΑ

Andrew Athens
Πρόεδρος Ελληνικής Φροντίδας (HelleniCare), Επίτιμος Πρόεδρος Συμβουλίου Απόδημου Ελληνισμού, ΗΠΑ

Στέφανος Γερουλάνος
Πρόεδρος Ιπποκράτειου Ιδρύματος, Ελλάδα

Σπύρος Μεζίτης
Πρόεδρος Ομοσπονδίας Ιατρικών Συλλόγων Β. Αμερικής, ΗΠΑ

Κωνσταντίνος Δροσάτος
Πρόεδρος Συμβουλίου Ελλήνων Βιοεπιστημών, ΗΠΑ

Ιωάννης Γιαννικόπουλος
Τέως Πρόεδρος Ελληνικής Ιατρικής & Οδοντιατρικής Εταιρείας Νότιας Καλιφόρνιας, ΗΠΑ

Χαρά Μάργαρη
Πρόεδρος Ελληνικής Κυτταρολογικής Εταιρείας, Ελλάδα

Θεανώ Σαραντοπούλου
Πρόεδρος Ελληνικής Επιστημονικής Επιτροπής Ψυχικής Υγείας, ΗΠΑ

Έλλη Ελευθερία Χάιντιγκερ
Πρόεδρος Ελληνικής Επιστημονικής Επιτροπής Πανδημίας, Αυστρία

Όλγα Σαραντοπούλου
Πρόεδρος Ελληνικής Επιστημονικής Επιτροπής Ψυχικής Υγείας, ΗΠΑ

3ο Παγκόσμιο Συνέδριο
Λαγονίτης 3-5 Σεπτεμβρίου 2009
Zois Vrettos  
*President of the Hellenic Scientific Association of Renania-Westphalia, Germany*

Evangelia (Lila) Amirali  
*President of the Hellenic Medical Society of Quebec, Canada*

Irene Mavroudi  
*Greek Hospital of Cairo, Egypt*

Dimitrios Karadaglis  
*Fellowship of the Royal College of Surgeons in Orthopedics Preparation Courses, United Kingdom*

Nikolaos Chantziantoniou  
*Department of Pathology and Laboratory Medicine, Cytopathology Section, King Abdulaziz Medical City, Saudi Arabia*

**Lecture**

*“The Quantum & The Brain”*

Dimitri Nanopoulos  
*Ordinary Member of the Academy of Athens, Distinguished Professor of Physics, Texas A&M University, USA*

**15:00 – 16:00 p.m. Buffet Lunch**
Ζώης Βρεττός
Πρόεδρος Ελληνικού Επιστημονικού Συλλόγου Ρηνανίας-Βεστφαλίας, Γερμανία

Ευαγγελία (Λίλα) Αμιράλη
Πρόεδρος Ελληνικής Ιατρικής Εταιρείας Κεμπέκ, Καναδάς

Ειρήνη Μαυρουδή
Ελληνικό Νοσοκομείο Κάιρου, Αίγυπτος

Δημήτρης Καραδαγλής
Οργανισμός Προετοιμασίας για τις Εξετάσεις Fellowship of the Royal College of Surgeons στην Ορθοπεδική, Ηνωμένο Βασίλειο

Νικόλαος Χατζηαντωνίου
Τμήμα Παθολογίας & Εργαστηριακής Ιατρικής, Τμήμα Κυτταροπαθολογίας, King Abdulaziz Medical City, Σαουδική Αραβία

Διάλεξη

«Τα Κβάντα και ο Εγκέφαλος»
Δημήτρης Νανόπουλος
Τακτικό Μέλος Ακαδημίας Αθηνών, Διακεκριμένος Καθηγητής Φυσικής, Πανεπιστήμιο Τέξας A&M, ΗΠΑ

15:00 – 16:00 μ.μ. Buffet Lunch
3rd Session – Cosmos Hall

17:00 – 18:30 p.m.

Epidemiology of Swine Flu A (H1N1) in Greece

Moderator: Eleni Giamarellou

Epidemiology of Swine Flu A (H1N1)
Angelos Hatzakis, Professor of the University of Athens

Virology Regarding Swine Flu A (H1N1)
Athanasios Tsakris, Professor of the University of Athens

Holistic Confrontation of Swine Flu Α (Η1Ν1)
Yannis Tselentis, Professor Emeritus of the Medical School of the University of Athens

Prevention and Treatment of Swine Flu A (H1N1)
Georgios Petrikkos, Professor of Pathology – Infectious Diseases of the Medical School of the University of Athens

Operational Organization and Preparedness of the Health Sector Regarding Swine Flu A (H1N1)
Panos Efstathiou, Commander of National Health Operation Center

Discussion

18:30 – 18:45 p.m. Coffee Break

4th Session – Cosmos Hall

18:45 – 19:45 p.m.

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 Androussellis-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

Discussion

21:00 p.m. Dinner
3η Συνεδρίαση – Αίθουσα Cosmos

17:00 – 18:30 μ.μ.
Επιδημιολογία της Γρίπης Α (H1N1) στην Ελλάδα
Προεδρείο: Ελένη Γιαμαρέλλου
Επιδημιολογία Γρίπης Α (H1N1)
Άγγελος Χατζάκης, Καθηγητής Πανεπιστημίου Αθηνών
Γνώσεις Ιολογίας σε Σχέση με τη Γρίπη Α (H1N1)
Αθανάσιος Τσακρής, Καθηγητής Πανεπιστημίου Αθηνών
Ολιστική Αντιμετώπιση της Γρίπης Α (H1N1)
Γιάννης Τσελέντης, Ομότιμος Καθηγητής Ιατρικής Σχολής Πανεπιστημίου Αθηνών
Πρόληψη και Θεραπεία της Γρίπης Α (H1N1)
Γεώργιος Κολιάκος, Καθηγητής Παθολογίας – Λοιμώξεων Ιατρικής Σχολής Πανεπιστημίου Αθηνών
Επιχειρησιακή Οργάνωση και Ετοιμότητα του Τομέα Υγείας για τη Γρίπη Α (H1N1)
Πάνος Ευσταθίου, Διοικητής του Εθνικού Κέντρου Επιχειρήσεων Υγείας
Συζήτηση
18:30 – 18:45 μ.μ. Διάλειμμα

4η Συνεδρίαση – Αίθουσα Cosmos

18:45 – 19:45 μ.μ.
Εφαρμογές με Αρχέγονα Κύτταρα
Προεδρείο: Γεώργιος Κολιάκος, Δημήτρης Θάνος
Εισαγωγή στις Ιδιότητες των Αρχέγονων Κυττάρων
Γεώργιος Κολιάκος, Ιατρική Σχολή Αριστοτελείου Πανεπιστημίου Θεσσαλονίκης, Θεσσαλονίκη, Ελλάδα
Επίκαιρες Εφαρμογές με Χρήση Αρχέγονων Κυττάρων
Ανδρέας Ανδρουτσέλης-Θεοτόκης, Εθνικά Ινστιτούτα Υγείας, Bethesda, ΗΠΑ
Οδοντικά Αρχέγονα Κύτταρα
Γεώργιος Σ. Colt, Αμερικανικό Συμβούλιο Προσθοδοντικής, Βοστώνη, ΗΠΑ
Νομικά και Ηθικά Ζητήματα
Δημήτρης Θάνος, Ιατροβιολογικό Κέντρο Ακαδημίας Αθηνών
Συζήτηση
21:00 μ.μ. Δείπνο
FRIDAY, SEPTEMBER 4, 2009

Session 5A – Cosmos Hall

9:00 – 10:30 a.m.

Metabolic Diseases

Moderators: Christos Mantzoros, Spyros Mezitis, Konstandinos Tamvakopoulos (Senior Investigator, Biomedical Research Foundation of the Academy of Athens)

Adipose Tissue as an Endocrine Organ
Christos Mantzoros, Harvard Medical School and Harvard School of Public Health, Boston, USA

Confrontation of Inflammatory Reaction in Type I Diabetes
Maria Koulmanda, Department of Surgery Harvard Medical School, Transplant Research Institute, Beth Israel Deaconess Medical Center, Boston, USA

Biomarker Discovery in Diabetic Nephropathy
Rania D. Kovaiou, BIOCRATES Life Sciences AG, Innsbruck, Austria

Human Glucose Metabolism
Stephane Vassilopoulos, Institute of Myology, Paris, France

Epigenetic Analysis
Despina Komninou, “Mezitis” Education and Research Institute, New York, USA

Insulin, Insulin Analogues and Cellular Apoptosis
Nicholas Mezitis, “Mezitis” Education and Research Institute, St. Luke’s –Roosevelt Hospital Center, New York, USA

Immunological Aspects of Obesity
Aliki Kosteli, Nutritional and Metabolic Biology Program, Columbia University, New York, USA

Emerging Strategies for Managing Diabetes Patients
Spyros Mezitis, Weill Medical College of Cornell University, New York – Presbyterian Hospital, Lenox Hill Hospital, New York, USA

Discussion
ΠΑΡΑΣΚΕΥΗ 4 ΣΕΠΤΕΜΒΡΙΟΥ 2009

Συνεδρίαση 5Α – Αίθουσα Cosmos

9:00 – 10:30 π.μ.

Μεταβολικά Νοσήματα

Προεδρείο: Χρήστος Ματζώρος, Σπύρος Μεζίτης, Κωνσταντίνος Ταμβακόπουλος (Ερευνητής, Ιδρυμα Ιατροβιολογικών Ερευνών Ακαδημίας Αθηνών)

Ο Λιπώδης Ιστός ως Ενδοκρινής Αδένας
Χρήστος Ματζώρος, Ιατρική Σχολή & Σχολή Δημόσιας Υγείας του Πανεπιστημίου Harvard, Βοστώνη, ΗΠΑ

Αντιμετώπιση Φλεγμονώδους Αντίδρασης στο Διαβήτη Τύπου I
Μαρία Κουλμαντά, Τμήμα Χειρουργικής της Ιατρικής Σχολής του Πανεπιστημίου Harvard, Ινστιτούτο Έρευνας Μεταμοσχεύσεων, Ιατρικό Κέντρο Beth Israel Deaconess, Βοστώνη, ΗΠΑ

Βιολογικοί Δείκτες Διαβητικής Νεφροπάθειας
Ράνια Δ. Κωβαίου, BIOCRATES Life Sciences AG, Ίνσμπρουκ, Αυστρία

Ανθρώπινος Επανακατασκευή Τροφίμων
Στέφανος Βασιλόπουλος, Ινστιτούτο Μυολογίας, Παρίσι, Γαλλία

Επιγενετική Ανάλυση
Δέσποινα Κομνηνού, Κέντρο Εκπαίδευσης & Έρευνας «Μεζίτης», Νέα Υόρκη, ΗΠΑ

Ινσουλίνη, Ανάλογα Ινσουλίνης και Απόπτωση
Νίκος Μεζίτης, Κέντρο Εκπαίδευσης & Έρευνας «Μεζίτης», Νοσοκομείο St. Luke’s – Roosevelt, Νέα Υόρκη, ΗΠΑ

Ανοσολογία Παχυσαρκίας
Αλίκη Κωστέλη, Πρόγραμμα Βιολογίας της Διατροφής & του Μεταβολισμού, Πανεπιστήμιο Columbia, Νέα Υόρκη, ΗΠΑ

Νεώτερες Αρχές Αντιμετώπισης Διαβήτη
Σπύρος Μεζίτης, Ιατρικό Κολλέγιο Weill του Πανεπιστημίου Cornell, Νοσοκομείο New York – Presbyterian, Νοσοκομείο Lenox Hill, Νέα Υόρκη, ΗΠΑ

Συζήτηση
**Session 5B – Galileo Hall**

9:00 – 10:30 a.m.

Cancer & Immunology

**Moderators:** George J. Tsioulias, Zissis Chroneos, Manousos Konstadoulakis *(Associate Professor of Surgery, University of Athens)*

Breast Cancer
Leila Thanasoulis, *Sound Shore Medical Center of Westchester, Solomon Katz Breast Center, New Rochelle, USA*

Lung Transplantation
Denis Hadjiliadis, *University of Pennsylvania, Lung Transplantation Program, Adult Cystic Fibrosis Program, Philadelphia, USA*

Preservation of Fertility in Patients with Cancer
Vasiliki A. Moragianni, *Division of Reproductive Endocrinology & Infertility Department of Obstetrics & Gynecology, Beth Israel Deaconess Medical Center – Boston IVF, Harvard Medical School, Boston, USA*

Prostate Cancer – Detection of Circulating Cells in Blood
Nicholas A. Romas, *St. Luke’s – Roosevelt Hospital, New York, USA*

Hepatic Cancer
Leonidas Alexopoulos, *MIT, Boston, USA*

Idiotype Vaccine Therapy (BiovaxID) in Follicular Lymphoma in First Complete Remission
Angelos M. Stergiou, *Genesis BioPharmaGroup, Clinical Research & Development and Medical Affairs, New York, USA*

Molecular Principles in Breast Cancer
Panagiotis Papageorgis, *Boston University, Boston, USA*

Pulmonary Surfactant
Zissis Chroneos, *University of Texas Health Science Center, Tyler, USA*

Depression & Inflammatory Reaction
Angelos Halaris, *Loyola University, Stritch School of Medicine, Chicago, USA*

Surgical Confrontation of Rheumatic Disease
Harilaos Sakellarides, *Boston University School of Medicine, Boston, USA*

Nasopharynx Cancer
George Varsos, *Mount Sinai Hospital, New York, USA*

Discussion

10:30 – 11:00 a.m. Coffee Break
Συνεδρίαση 5Β – Αίθουσα Galileo

9:00 – 10:30 π.μ.

Καρκίνος & Ανοσολογία

Προεδρείο: Γεώργιος Ι. Τσιούλιας, Ζήσης Χροναίος, Μανούσος Κωνσταντουλάκης (Αναπληρωτής Καθηγητής Χειρουργικής, Πανεπιστημίου Αθηνών)

Καρκίνος Μαστού
Λέιλα Θανασούλη, Ιατρικό Κέντρο Sound Shore του Westchester, Κέντρο Μαστού Solomon Katz, New Rochelle, ΗΠΑ

Μεταμόσχευση Πνευμόνων
Διονύσης Χατζηηλιάδης, Πανεπιστήμιο της Πενσυλβάνια, Πρόγραμμα Μεταμόσχευσης Πνευμόνων, Πρόγραμμα Κυστικής Ίνωσης σε Ενήλικες, Φιλαδέλφεια, ΗΠΑ

Διατήρηση Γονιμότητας Καρκινοπαθών
Βασιλική Α. Μοραγιάννη, Τμήμα Βιομηχανικής Ενδοκρινολογίας & Τμήμα Υπογονιμότητας, Μαιευτικές και Γυναικολογίας, Ιατρικό Κέντρο Beth Israel Deaconess – Κέντρο Γονιμότητας Boston IVF, Ιατρική Σχολή του Πανεπιστημίου Harvard, Βοστώνη, ΗΠΑ

Καρκίνος Προστάτη – Ανίχνευση Κυκλοφορούντων Κυττάρων
Νικόλαος Α. Ρώμας, Νοσοκομείο St. Luke’s – Roosevelt, Νέα Υόρκη, ΗΠΑ

Καρκίνος Ήπατος
Λεωνίδας Αλεξόπουλος, MIT, Βοστώνη, ΗΠΑ

Ιδιοτύπη Θεραπεία με Εμβόλιο (BiovaxID) Θυλακοειδούς Λεμφώματος σε Πρώτη Πλήρη Ύφεση
Άγγελος Μ. Στεργίου, Genesis BioPharmaGroup, Κλινική Έρευνα & Ανάπτυξη και Ιατρικές Υποθέσεις, Νέα Υόρκη, ΗΠΑ

Μοριακές Αρχές Καρκίνου Μαστού
Παναγιώτης Παπαγιώργης, Πανεπιστήμιο Βοστώνης, Βοστώνη, ΗΠΑ

Επιφανειοδραστικός Παράγοντας Πνευμόνων
Ζήσης Χροναίος, Πανεπιστήμιο του Τέξας Κέντρο Ιατρικής Επιστήμης, Tyler, ΗΠΑ

Κατάθλιψη και Φλεγμονώδης Αντίδραση
Άγγελος Χάλαρης, Ιατρική Σχολή Loyola, Ιατρική Σχολή Stritch, Σικάγο, ΗΠΑ

Χειρουργική Αντιμετώπιση Ρευματοπάθειας
Χαρίλαος Σκακελλαρίδης, Ιατρική Σχολή Πανεπιστημίου Βοστώνης, Βοστώνη, ΗΠΑ

Καρκίνος του Ρινοφάρυγγα
Γεώργιος Βάρος, Νοσοκομείο Mount Sinai, Νέα Υόρκη, ΗΠΑ

Συζήτηση

10:30 – 11:00 π.μ. Διάλειμμα
Session 6A – Cosmos Hall

11:00 a.m. – 12:30 p.m.

Cardiovascular Diseases

**Moderators:** George D. Dangas, Ilias Iliadis, UMDNJ, Dionysios Kokkinos (Professor of Cardiology, Biomedical Research Foundation of the Academy of Athens)

**Congenital Heart Disease as a New Epidemic in Greece and Abroad**
Spyros Rammos, Department of Pediatric Cardiology, Onassis Cardiac Surgery Center, Greece

**Hypertension: The Role of Skeletal Muscles**
Arthur Cosmas, Department of Kinesiology, University of Rhode Island, Kingston, USA

**Renal Artery Stenosis**
Elias Iliadis, Cooper University Hospital, Camden, USA

**New Therapeutic Methods for Aneurisms**
Antonios Polydorou, General Hospital of Athens “Evaggelismos”, Athens, Greece

**Ischemia of Nether Limps**
Steven Kavros, Mayo Clinic, Rochester, USA

**Complications of Angioplasty**
John Stathopoulos, New York University Langone Medical Center, New York, USA

**Clinical Research in Greece**
Harisios Boudoulas, Biomedical Research Foundation of the Academy of Athens, Athens, Greece

**The Curious Case of Perinatal Myosyn (MYH8) Involvement in Cardiac Embryogenesis**
Konstantinos Charitakis, New York – Presbyterian Hospital, Weill Medical College of Cornell University, New York, US

**Discussion**
Συνεδρίαση 6Α – Αίθουσα Cosmos

11:00 π.μ. – 12:30 μ.μ.

Καρδιαγγειακές Παθήσεις

Προεδρείο: Γεώργιος Δ. Ντάγιας, Ηλίας Ηλιάδης, Διονύσιος Κόκκινος
(Kαθηγητές Καρδιολογίας, Ίδρυμα Ιατροβιολογικών Ερευνών Ακαδημίας Αθηνών)

Συγγενείς Καρδιοπάθειες ως Επερχόμενη Επιδημία στην Ελλάδα και Διεθνώς
Σπύρος Ράμμος, Παιδοκαρδιολογικό Τμήμα, Ωνάσειο Καρδιοχειρουργικό
Κέντρο, Ελλάδα

Υπέρταση: Ρόλος Σκελετικών Μυών
Αρθούρος Κοσμάς, Τμήμα Κινησιολογίας, Πανεπιστήμιο του Rhode Island,
Kingston, ΗΠΑ

Στένωση Νεφρικών Αρτηριών
Ηλίας Ηλιάδης, Πανεπιστημιακό Νοσοκομείο Cooper, Camden, ΗΠΑ

Νέες Θεραπευτικές Μέθοδοι επί Ανευρυσμάτων
Αντώνης Πολυδώρου, Γενικό Νοσοκομείο Αθηνών «Ευαγγελισμός», Αθήνα,
Ελλάδα

Ισχαιμία Κάτω Άκρων
Στέφανος Κάβρος, Κλινική Mayo, Rochester, ΗΠΑ

Επιπλοκές Στεφανιαίων Επεμβάσεων
Ιωάννης Σταθόπουλος, Ιατρικό Κέντρο Langone Πανεπιστημίου Νέας Υόρκης,
Νέα Υόρκη, ΗΠΑ

Κλινική Έρευνα στην Ελλάδα
Χαρίσιος Μπουντούλας, Ίδρυμα Ιατροβιολογικών Ερευνών Ακαδημίας Αθηνών,
Αθήνα, Ελλάδα

Ένας Νέος Ρόλος για την Περιγεννητική Μυοσίνη (MYH8) στην Καρδιακή
Εμβρυогένεση
Κωνσταντίνος Χαριτάκης, Νοσοκομείο New York – Presbyterian, Ιατρικό
Κολλέγιο Weill Πανεπιστημίου Cornell, Νέα Υόρκη, ΗΠΑ

Συζήτηση
Session 6B – Galileo Hall

11:00 a.m. – 12:30 p.m.

Neurology – Ophthalmology

Moderators: Vassilis Kolliatsos, Evangelia (Lila) Amirali

Experimental Treatments for Neural Degeneration
Vassilis Kolliatsos, Johns Hopkins University School of Medicine, Stulman Scholar in Clinical Neuropsychiatry, Sheppard and Enoch Pratt Hospital, Baltimore, USA

Bipolar Disorder in Children and Adolescents
Evangelia (Lila) Amirali, McGill University, Montreal, Canada

Calcium Receptors in the Neurons
Ioannis Michailidis, Columbia University, New York, USA

Cell Differentiation in the Cornea
Vassilis Vassiliou, Department of Pharmaceutical Sciences, University of Colorado, Denver, USA

Chronic Progressive External Ophthalmoplegia
Eva Sotiriou, Columbia University Medical Center, New York, USA

Neurogenic Hearing Impairment
Domenica Karavitaki, Department of Neurobiology, Harvard Medical School, Boston, USA

Discussion
Συνεδρίαση 6Β – Αίθουσα Galileo

11:00 π.μ. – 12:30 μ.μ.

Νευρολογία – Οφθαλμολογία

Προεδρείο: Βασίλης Κολιάτσος, Ευαγγελία (Λίλα) Αμιράλη

Πειραματικές Θεραπείες για Εκφυλίσεις του Νευρικού Συστήματος

Βασίλης Κολιάτσος, Ιατρική Σχολή Πανεπιστημίου Johns Hopkins, Stulman Scholar στην Κλινική Νευροψυχιατρική, Νοσοκομείο Sheppard & Enoch Pratt, Βαλτιμόρη, ΗΠΑ

Διπολική Νόσος σε Παιδιά και Εφήβους

Ευαγγελία (Λίλα) Αμιράλη, Πανεπιστήμιο McGill, Μόντρεαλ, Καναδάς

Υποδοχείς Ασβεστίου Νευρικών Κυττάρων

Ιωάννης Μιχαηλίδης, Πανεπιστήμιο Columbia, Νέα Υόρκη, ΗΠΑ

Διαφοροποίηση Κυττάρων Κερατειδούς

Βασίλης Βασιλείου, Τμήμα Φαρμακευτικών Επιστημών, Πανεπιστήμιο του Colorado, Ντένβερ, ΗΠΑ

Χρόνια Προϊούσα Οφθαλμοπληγία

Εύα Σωτηρίου, Ιατρικό Κέντρο Πανεπιστημίου Columbia, Νέα Υόρκη, ΗΠΑ

Νευρογενής Κώφωση

Κυριακή Καραβιτάκη, Τμήμα Νευροβιολογίας, Ιατρική Σχολή του Πανεπιστημίου Harvard, Βοστώνη, ΗΠΑ

Συζήτηση
7th Session – Galileo Hall

12:30 – 13:00 p.m.

Bone Diseases

Moderators: Dimitrios Karadaglis, Spyros Pneumatikos (Associate Professor of Orthopedics, University of Athens)

The Kinematics of the Knee Joint
Dimitrios Karadaglis, Fellowship of the Royal College of Surgeons in Orthopedics Preparation Courses, London, United Kingdom

Endoscopic Confrontation of Atlantoaxial Dislocations
Peter Passias, Hospital for Special Surgery, New York, USA

New Surgical Methods for Vertebral Diseases
James Argires, Department of Neurosurgery, Lancaster General Hospital, Pennsylvania, USA

Osteochondral Lesions of the Ankle
George Theodore, Massachusetts General Hospital, Boston, USA

Discussion

13:00 – 14:30 p.m. Buffet Lunch

17:15 p.m.

Departure from Grand Resort Lagonissi Hotel

18:00 – 20:00 p.m.

Visit to the Acropolis Museum

21:00 p.m.

Dinner at “Dionysos” Restaurant
7η Συνεδρίαση – Αίθουσα Galileo

12:30 – 13:00 μ.μ.

Παθήσεις Οστών

Προεδρεύει: Δημήτριος Καραδαγγής, Σπύρος Πνευματικός (Αναπληρωτής Καθηγητής Ορθοπεδικής, Πανεπιστήμιο Αθηνών)

Κινηματική του Γόνατος
Δημήτριος Καραδαγγής, Οργανισμός Προετοιμασίας για τις Εξετάσεις Fellowship of the Royal College of Surgeons στην Ορθοπεδική, Λονδίνο, Ηνωμένο Βασίλειο

Ενδοσκοπική Αντιμετώπιση Ατλαντοαξονικής Μετατόπισης
Πέτρος Πασσιάς, Νοσοκομείο Ειδικής Χειρουργικής, Νέα Υόρκη, ΗΠΑ

Νέες Χειρουργικές Μέθοδοι Επί Παθήσεων Σπονδυλικής Στήλης
Δημήτρης Αργύρης, Νευροχειρουργικό Τμήμα, Γενικό Νοσοκομείο Lancaster, Lancaster, ΗΠΑ

Οστεοχονδρίτιδα Αστραγάλου
Γεώργιος Θεοδώρου, Γενικό Νοσοκομείο Μασαχουσέτης, Βοστώνη, ΗΠΑ

Συζήτηση

13:00 – 14:30 μ.μ. Buffet Lunch

17:15 μ.μ.
Αναχώρηση από το Ξενοδοχείο Grand Resort Lagonissi

18:00 – 20:00 μ.μ.
Επίσκεψη στο Μουσείο της Ακρόπολης

21:00 μ.μ.
Δείπνο στο Εστιατόριο «Διόνυσος»
SATURDAY, SEPTEMBER 5, 2009
Cosmos Hall
9:00 - 10:30 a.m.
Concluding Remarks
Future Plans & Activities of the Global Hellenic Medical & Biosciences Network
Departure of Delegates
ΣΑΒΒΑΤΟ 5 ΣΕΠΤΕΜΒΡΙΟΥ 2009

Αίθουσα Cosmos

9:00 – 10:30 π.μ.

Συμπεράσματα του Συνεδρίου

Μελλοντικές Δραστηριότητες του Παγκοσμίου Δικτύου Ελλήνων Ιατρών και Βιοεπιστημόνων

Αναχώρηση Συνεδρίων
DATE & VENUE
The 3rd World Congress of the Global Hellenic Medical & Biosciences Network, which is held under the auspices of the Ministry of Health & Social Solidarity, the Presidency of the Hellenic Republic and the Presidency of the Republic of Cyprus, will take place in Athens, at the Grand Resort Lagonissi (Cosmos Hall – Galileo Hall) from the 3rd until the 5th of September 2009.

OFFICIAL CONGRESS OPENING CEREMONY
On Thursday the 3rd of September 2009 the Official Opening Ceremony of the 3rd World Congress of the Global Hellenic Medical & Biosciences Network will take place.
H.E. the President of the Hellenic Republic Dr. Karolos Papoulias will declare the proceedings of the Congress open.

ACCREDITATION BADGES
The accreditation badges of the participants will be distributed from the Hospitality Desk upon arrival at the hotel on the 2nd of September and from September 3rd after 9 a.m. from the Congress Reception, at the congress venue. All participants must wear their badges at all times. In case of loss, please contact immediately the Congress Reception.

The accreditation badges have been color – coded, as follows:

Participants: RED
Guests: BLACK
Organizers: GREY

AUDIOVISUAL EQUIPMENT
A Presentation Reception Desk will operate throughout the duration of the Congress. All Speakers are kindly requested to hand in all material of their presentation (USB-key, CD-ROM) at least one (1) hour prior to their scheduled presentation time.
All versions of MS PowerPoint are accepted, excluding Mac.
If the presentation is scheduled early in the morning, speakers are kindly requested to check their presentation at the Presentation Reception Desk the day before.
If embedded video clips are going to be used in the presentation, please submit the video files separately.

At the Congress the following equipment will be available:

- PC
- Data Projector (PowerPoint Presentations)
- DVD Player
- Laser Pointer
ΓΕΝΙΚΕΣ ΠΛΗΡΟΦΟΡΙΕΣ

HMEROMHNIA & TOPOS DIAELOGHNS
To 3o PAGKÔMIO SUNEDHIO TÔU DIKTOÚ OELHÎWV IATROW & BISSEPITSMÔNÔV, POU TELEI ÍPÔ TÔN AÎGÔDA TÔU YPOURGIEÍOU YGEIAS KAI KOINÔNWIKHS ALHPEGGÔS, TÔS PROEÐRÎA TÔS OELHÎWV DÍHÔKRAÎHNAS KAI TÔS PROEÐRÎA TÔS KUPRIAKHS DÍHÔKRAÎHNAS, THA PRAGMATOPÔINHSH STRN TÔN AÎTHNÎA, STÔ XEVDÔXOEÎO GRAND RESORT LAGONISSI (AÎTHÔUSA COSMOS – AÎTHÔUSA GALILEO), APÔ TÔS 3 ÊWOS TÔS 5 SEPTEMBRÎOU 2009.

EPISEHMH TELETH ENARXH TÔU SUNEDHRIOU
TÎN PÎMPPT 3 SEPTEMBRÎOU 2009 THA PRAGMATOPÔINHSH TÔN EPIÎSÎMHN TELETH HNARXH TÔS 3O PAGKÔMIO SUNEDHRIOU TÔS DIKTOÚ OELHÎWV IATROW & BISSEPITSMÔNÔV. TÎN EPIÎSÎMHN HNARXH THA TELESH TÔN A.E. O PRÔDÎROS TÔS OELHÎWV DÍHÔKRAÎHNAS K. PAPÔULIAS.

KARTES SUNEDHRION
Oî KÁRTES TÔN SUNEDHDRÔN THA PRARADÎDHNHAN OÎ TÔ HRAHMÂTEIA YPODÔKHÎSA STÔS 2 SEPTEMBRÎOU KATÀ TÔN AFÎXH TÔW SUNEDHDRÔN STÔ XEVDÔXOEÎO KAI APÔ TÔ HRAHMÂTEIA TÔS SUNEDHRIOU STÔ KÔROH DIOEZHAGHîSH AUTÔU APÔ TÔS 3 SEPTEMBRÎOU STÔS 09:00 P.M. ÔLOI OI SUMMETEKÎCHÔNES UPÔKREÔNHTAI NA FERÔNH SÛNHËWS TÔS KÁRTES TÔS. ŠE PEPÎTPHSH APÔLÔLEIAS TÔS KÁRTAS SASH, PARAKALÔMENH EPIKÔINÔNHA ME TÔ HRAHMÂTEIA TÔS SUNEDHRIOU.

Oî KÁRTES FÊRÔN DIÂKRITIKH XRÔMÂTA, WÛS EJHÎS:

SUMMETEKÎCHÔNES: KOKKÎNO
EPISEKHÎESES: MAYRO
ORGHÂNOITÊS: GRÔI

OPTIKOAKOUYTÔKIKH EIXOMIÂSMOS
SÈ ÔLH TÎ DIÁRKEIEI TÔS SUNEDHRIOU THA LEITOURGÎJI KÊNTERO PARÂDÔSOSH KAI DÔKHMÎH SUMPOUSIÂSHNÔH. OI OMILÎTEES PARAKALÔUYHNAI NA PARÂDÏDHNHSEIN SE AUTÔ TÔ KÊNTERO, TO ULIKÔ TÔN SUMPOUSIÂSHNÔN TOUS (USB-KEY, CD-ROMS) TOULÔKHISTHÔN MIA (1) ÔRA PRÔN TÔN PRAGMATISMIÎVNEI ÔRA TÔS OMIELHÎS TOUS. AN H PAROUSSIÂSHH THÔS EKEI PRAGMATISMIÎVNEI ΓH NWRH ÔS PÔRÎ, OI OMILÎTEES PARAKALÔUYHNAI NA PARÂDÏDHNHSEI TÔ SKEHETIKH ULIKÔ APÔ TÔN PRAGMATISMIÎVNEI HMÎRÂ. ÔLOIES H EKÐÔSIES TÔS MS PowerPoint ÊINAI APÔDEKTEES, PÔLH TÔN MÂCS.

SE PEPÎTPHSH SÔN H PAROUSSIÂSH PERILAÐBANÎ RIODE CLIPS, PARAKALÔMENH NA PARADÔSWHSEI TÔS ARXHIEI RIODE ZEKSÔRISTH."
HOSPITALITY DESK
On Tuesday, September 2nd, a Hospitality Desk will operate from 9 a.m. until 9 p.m. at the hotel Lobby.

CONGRESS RECEPTION DESK
At the Congress area, in the foyer of Cosmos Hall, a Congress Reception Desk will operate from Thursday September 3rd until Saturday September 5th 2009. The Congress Reception will operate all days of the Congress from 9 a.m. until 9 p.m. except Saturday where the Reception Desk will remain open up to 1 p.m.

MEDIA RECEPTION DESK
At the Congress area, in the foyer of Cosmos Hall, a Media Reception Desk will operate from Thursday September 3rd until Saturday September 5th 2009. The Media Reception Desk will operate all days of the Congress from 9 a.m. until 9 p.m. except Saturday where the Reception Desk will remain open up to 1 p.m.

PRESENTATION RECEPTION DESK
At the Congress area, in Neptune Hall, a Presentation Reception Desk will operate for the participants to submit their presentation materials. The Presentation Reception Desk will operate all days of the Congress from 9 a.m. until 9 p.m. except Saturday where the Reception will remain open up to 1 p.m.

BUSINESS CENTER
At the Congress area, in Neptune Hall, a Business Center will operate for the convenience of all participants. The Business Center will operate all days of the Congress from 9 a.m. until 9 p.m. except Saturday where the Center will remain open up to 1 p.m.

MEDIA CENTER
At the Congress area, in Aris Hall, a Media Center will operate for the convenience of all press representatives. The Media Center will operate all days of the Congress from 9 a.m. until 9 p.m. except Saturday where the Media Center will remain open up to 1 p.m.

VISIT TO THE ACROPOLIS MUSEUM & DINNER
On Friday September 4th, the programmed visit to the Acropolis Museum will take place. All attending participants must be at the hotel reception at 4:45 a.m. ready to depart. After the visit to the Acropolis Museum, a dinner will be held at the restaurant “Dionysos”.
ΓΡΑΜΜΑΤΕΙΑ ΥΠΟΔΟΧΗΣ
Στο Lobby του ξενοδοχείου θα λειτουργεί Γραμματεία Υποδοχής για την Τετάρτη 2 Σεπτεμβρίου από τις 9 π.μ. μέχρι τις 9 μ.μ.

ΓΡΑΜΜΑΤΕΙΑ ΣΥΝΕΔΡΙΟΥ
Στο χώρο του Συνεδρίου, στο foyer της Αίθουσας Cosmos, θα λειτουργεί η Γραμματεία Συνεδρίου από την Πέμπτη 3 Σεπτεμβρίου 2009, μέχρι το Σάββατο 5 Σεπτεμβρίου 2009.
Η Γραμματεία θα λειτουργεί όλες τις ημέρες διεξαγωγής του Συνεδρίου από τις 9 π.μ. μέχρι τις 9 μ.μ. πλην του Σαββάτου όπου η Γραμματεία θα παραμείνει ανοιχτή μέχρι τη 1 μ.μ.

ΓΡΑΜΜΑΤΕΙΑ ΜΜΕ
Στο χώρο του Συνεδρίου, στο foyer της Αίθουσας Cosmos, θα λειτουργεί η Γραμματεία των ΜΜΕ από την Πέμπτη 3 Σεπτεμβρίου 2009, μέχρι το Σάββατο 5 Σεπτεμβρίου 2009,
Η Γραμματεία θα λειτουργεί όλες τις ημέρες διεξαγωγής του Συνεδρίου από τις 9 π.μ. μέχρι τις 9 μ.μ. πλην του Σαββάτου όπου η Γραμματεία θα παραμείνει ανοιχτή μέχρι τη 1 μ.μ.

ΓΡΑΜΜΑΤΕΙΑ ΠΑΡΟΥΣΙΑΣΕΩΝ
Στο χώρο του Συνεδρίου, στην Αίθουσα Neptune, θα λειτουργεί η Γραμματεία Παρουσιάσεων για την υποβολή του υλικού των συνεδριών.
Η Γραμματεία θα λειτουργεί από την Πέμπτη 3 Σεπτεμβρίου 2009, μέχρι το Σάββατο 5 Σεπτεμβρίου 2009 από τις 9 π.μ. μέχρι τις 9 μ.μ. πλην του Σαββάτου όπου η Γραμματεία θα παραμείνει ανοιχτή μέχρι τη 1 μ.μ.

BUSINESS CENTER
Στο χώρο του Συνεδρίου, στην Αίθουσα Neptune, θα λειτουργεί το Business Center του Συνεδρίου προς χρήση όλων των συνεδριών.
Το Business Center θα λειτουργεί από την Πέμπτη 3 Σεπτεμβρίου 2009, μέχρι το Σάββατο 5 Σεπτεμβρίου 2009 από τις 9 π.μ. μέχρι τις 9 μ.μ. πλην του Σαββάτου όπου η Γραμματεία θα παραμείνει ανοιχτή μέχρι τη 1 μ.μ.

MEDIA CENTER
Στο χώρο του Συνεδρίου, στην Αίθουσα Aris, θα λειτουργεί το Media Center του Συνεδρίου προς χρήση όλων των δημοσιογράφων που θα παρακολουθήσουν και θα καλύψουν το συνέδριο.
Το Media Center θα λειτουργεί από την Πέμπτη 3 Σεπτεμβρίου 2009, μέχρι το Σάββατο 5 Σεπτεμβρίου 2009 από τις 9 π.μ. μέχρι τις 9 μ.μ. πλην του Σαββάτου όπου η Γραμματεία θα παραμείνει ανοιχτή μέχρι τη 1 μ.μ.

ΕΠΙΣΚΕΨΗ ΣΤΟ ΜΟΥΣΕΙΟ ΤΗΣ ΑΚΡΟΠΟΛΗΣ & ΔΕΙΠΝΟ
Την Παρασκευή 4 Σεπτεμβρίου 2009, θα πραγματοποιηθεί η προγραμματισμένη επίσκεψη στο Μουσείο της Ακρόπολης. Οι συμμετέχοντες παρακαλούνται να βρίσκονται στη reception του ξενοδοχείου την Παρασκευή 4 Σεπτεμβρίου 2009 στις 4:45 μ.μ. έτοιμοι προς αναχώρηση. Μετά την επίσκεψη στο Μουσείο της Ακρόπολης θα ακολουθήσει δείπνο στο Εστιατόριο Διόνυσος.
MOBILE PHONES
Delegates are kindly asked to switch off their mobile phones while in session halls.

SMOKING POLICY
Smoking is not allowed in the areas of the Congress.

CONTACT PERSONS
For any matter concerning the Congress, all participants are kindly requested to contact the following persons:

Katerina Papageorgiadi (Congress Secretariat): +30 6972 554 223
Katerina Agapitou (Congress Secretariat): +30 6977 990 250
Manos Xenakis (Congress Technical Support): +30 6979 350 339
Theodore Lyrros (Congress Head): +30 6936 750 459
Ria Psouchla (Congress Organizer): +30 6936 750 457
ΚΙΝΗΤΑ ΤΗΛΕΦΩΝΑ
Οι συμμετέχοντες παρακαλούνται να έχουν κλειστά τα κινητά τους τηλέφωνα κατά τη διάρκεια της παρακολούθησης των ομιλιών.

ΚΑΠΝΙΣΜΑ
Το κάπνισμα δεν επιτρέπεται στους χώρους του Συνεδρίου.

ΑΤΟΜΑ ΕΠΙΚΟΙΝΩΝΙΑΣ
Για οποιοδήποτε θέμα αναφορικά με το Συνέδριο, οι σύνεδροι παρακαλούνται όπως απευθύνονται στα ακόλουθα άτομα:

Κατερίνα Παπαγεωργιάδη (Γραμματεία Συνεδρίου): +30 6972 554 223
Κατερίνα Αγαπητού (Γραμματεία Συνεδρίου): +30 6977 990 250
Μάνος Ξενάκης (Τεχνική Υποστήριξη Συνεδρίου): +30 6979 350 339
Θοδωρής Λύρρος (Υπεύθυνος Συνεδρίου): +30 6936 750 459
Ρία Ψούχλα (Διοργανωτής Συνεδρίου): +30 6936 750 457
Acropolis is a cultural monument which embodies the Aesthetics of Speech, the Ethos of Freedom and the Rationality of Beauty. Speech, Ethos, Aesthetics, Beauty and Freedom are all fused together and carved in stone on the Sacred Rock, creating this unique monument that continues to shine through the ages.

Today, the visitors have the opportunity to experience this radiance of ideas, models and values in a Museum, corresponding to the historical Monument, which invites them through its exhibits to be inspired by its transcending message.

The Acropolis Museum constitutes a part of all Greeks while at the same time it is a part of the citizens of the whole world. A uniting rail between the past and the future that preserves, with strong and sacred bonds, the diachronism from the humblest archaeological fragment to the most ornate figure.

The project of the creation of the Acropolis Museum had as initial inspirers the unforgettable Konstantinos Karamanlis and Melina Merkouri. 33 years elapsed from the original idea in 1976 until it became a reality.

The actual materialization of the project was carried out within 5 years (2004 – 2009). The architects & “sculptors” of the Acropolis Museum are the Bernard Tschumi (Swiss) and the Michalis Fotiadis (Greek). The Museum in its whole is a building of 25,000 m² and has exhibition areas of 14,000 m² that are developed in 3 different levels: the Base, the Middle Section and the Top Section. The Base hosts periodical exhibitions and the Middle Section houses exhibits from the Archaic Period until the period of the Roman Empire. The Top Section is composed from the rectangular Parthenon Gallery, which diverges at 230 degrees from the orientation of the rest of the building, in order to be in accordance with the orientation of the Parthenon.

The Parthenon is the biggest and most formal structure of the Acropolis and attracts the admiration of the civilized world across the ages. The building of the Temple of Athena began at 447 B.C., by the architects Iktinos and Kallikrates, and was completed at 438 B.C.

The design of the Acropolis Museum exhibits 3 philosophies: Light, Tectonic Movement and Programmed Dimension. These three features transform the original limitations of the area into an archeological challenge by offering a simple and harmonized Museum with the mathematical and architectural clarity of the Ancient Greek buildings. The extensive use of glass -with high levels of clarity-, especially at the top floor, places the visitor at the verge between the exhibition of the Marbles at the Museum and the natural location of the Parthenon.

The Museum aims to provide to its visitors all the important information regarding the archaeological findings of the Acropolis. The exhibits are not presented solely as works of art, but also as evidence of the historical and social context of the period from which they developed.

According to the President of the Museum & Professor of Archeology Mr. Dimitris Pandermalis, the Acropolis Museum generates -for the visitor- the feeling of walking on History.
ΤΟ ΜΟΥΣΕΙΟ ΤΗΣ ΑΚΡΟΠΟΛΗΣ

Η Ακρόπολη συνιστά ένα πολιτισμικό σύμβολο που συνοψίζει ταυτόχρονα την Αισθητική του Λόγου, το Ήθος της Ελευθερίας και τη Λογική της Ομορφιάς. Λόγος, Ήθος, Αισθητική, Κάλλος και Ελευθερία, αναμίχθηκαν πάνω στον Ίερό Βράχο κι ύφεσαν αυτό το μοναδικό μνημείο το οποίο εξακολουθεί να ακτινοβολεί.

Σήμερα, αυτή την ακτινοβολία ιδεών, προτύπων και αξιών το κοινό έχει την ευκαιρία να την απολαύσει σε ένα Μουσείο αντίστοιχο του Μνημείου που καλεί τον επισκέπτη να εμπνευστεί με το διαχρονικό του μήνυμα μέσα από τα εκθέματα του.

Το Μουσείο της Ακρόπολης συνιστά κομμάτι των Ελλήνων αλλά συνάμα, κομμάτι των πολιτών όλου του κόσμου. Μία συνδετική ράγα μεταξύ παρελθόντος και μέλλοντος, που διασφαλίζει με ιερούς και ακατάλυτους δεσμούς την διαχρονικότητα, που διασφαλίζει με ιερούς και ακατάλυτους δεσμούς τη διαχρονικότητα, από το πιο απλό θραύσμα έως την πιο περίπλοκη παράσταση.

Το έργο της ανέγερσης του Μουσείου της Ακρόπολης είχε εμπνευστές τους αείμνηστους Κωνσταντίνο Καραμανλή και Μελίνα Μερκούρη. Χρειάστηκαν 33 ολόκληρα χρόνια από την ιδέα του 1976, για να γίνει πραγματικότητα.


Ο Παρθενώνας είναι το μεγαλύτερο και επισημότερο οικοδόμημα της Ακρόπολης και συγκεντρώνει το θαυμασμό όλου του πολιτισμένου κόσμου εδώ και αιώνες. Οι εργασίες για την ανέγερση του ολομάρμαρου αυτού ναού της Αθηνάς, άρχισαν το 447 π.Χ. κάτω από τη διεύθυνση των αρχιτεκτόνων Ικτίνου και Καλλικράτη και ολοκληρώθηκαν το 438 π.Χ.

Το σχέδιο του Μουσείου της Ακρόπολης περιλαμβάνει 3 φιλοσοφίες: Φως, Κίνηση Τεκτονική και Προγραμματική Διάσταση. Όλα μαζί μετατρέπουν τις ιδιαιτερότητες του χώρου σε μία αρχαιολογική ευκαιρία προσφέροντας ένα απλό και ταυτικό Μουσείο με τη μαθηματική και αρχιτεκτονική καθαρότητα των αρχαίων ελληνικών κτηρίων. Η εκτεταμένη χρήση γυαλιού με υψηλά επίπεδα καθαρότητας, κυρίως στον τελευταίο όροφο, τοποθετεί τον επισκέπτη στο μεταίχμιο μεταξύ της τεχνητής έκθεσης των Μαρμάρων στο Μουσείο και της φυσικής θέσης του Παρθενώνα.

Στόχος του Μουσείου είναι να παράσχει στους επισκέπτες του όλες τις σημαντικές πληροφορίες για τα αρχαιολογικά ευρήματα της Ακρόπολης. Τα εκθέματα δεν παρουσιάζονται αποκλειστικά ως έργα τέχνης, αλλά παράλληλα και ως τεκμήρια του ιστορικού και κοινωνικού πλαισίου της περιόδου από τον οποίο προέρχονται.

Το Μουσείο της Ακρόπολης, όπως έχει δηλώσει ο Πρόεδρος του Μουσείου & Καθηγητής Αρχαιολογίας κ. Δημήτρης Παντερμαλής, δημιουργεί στον επισκέπτη την αίσθηση του περιπάτου πάνω στην Ιστορία.
Leonidas Alexopoulos, Ph.D.  
Harvard Medical School, Boston, USA  

A systems biology approach for identifying alterations of signaling networks in liver cancer  
The goal of this study was to determine cell signaling events which distinguish normal from cancer human hepatocyte using a combination of a Systems Biology approach and novel high-throughput protein activity measurements. Primary human hepatocytes and 4 hepatocellular carcinoma (HCC) cell lines (HepG2, Hep3B, Huh7, and Focus) were utilized. For normal and HCC hepatocytes we created a stimuli-phosphoprotein-cytokine (cue-signal-response) dataset that covers a wide range of hepatocyte phenotype. The dataset is comprised of ~26,000 protein measurements under 88 different perturbations generated by co-treatments with a diverse set of ligands and inhibitors. As pro-inflammatory stimuli we chose TNFa, IL1a, IL6, and INF; for innate immunity we chose LPS; for the insulin pathway we chose IGF-I; for pro-growth signals we chose TGFa. For each stimulus, 7 drugs were chosen that target 5 pathways (MEK, p38, NFkB, Akt, and JNK). For each cue+inhibitor perturbation, 17 intracellular phosphoproteins and 50 extracellular cytokines were collected at three time points (phosphoproteins: 0, early-30min, and late-3hr; cytokines: 0, early-3hr, and late-24hr). The resulting dataset was processed with our custom made software DATARAIL.  
The dataset was created using a novel high-throughput method of bead-based fluorescent readings (Luminex). Multi-linear regression (MLR) and Integer Linear Programming (ILP) were used to analyze the dataset. Transformation patterns among normal and cancer hepatocytes were ranked based on the differences of their correlations values. An ILP formulation was implemented in order to construct normal and HCC pathways by comparing apriori knowledge of literature-derived pathways with experimentally measured data.  
Our goals were two-fold: to quantify transformation patterns present in hepatocellular carcinoma cells, and to correlate those patterns to intracellular protein activities. We found that all transformed cells demonstrated an NF-κB mediated reduction of inflammatory responses, suggesting that this is a common acquired characteristic conferring them with the survival advantage of immune evasion.

E. Lila Amirali, MD, FRCPC  
Child and Adolescent Psychiatrist, Assistant Professor, McGill University  
Medical Director Pediatric Psychiatric Care Program Montreal Children's Hospital  
McGill University Health Centre  
President Hellenic Medical Association of Quebec  

Bipolar Disorder in children and adolescents  
The concept of bipolar disorder in children and adolescents has been the subject of controversy. During the presentation we shall review the validity of the diagnosis through epidemiological, neurobiological and genetic research. We shall describe the clinical presentation, the diagnostic challenges and the differential diagnosis. Finally, we shall present the evidence-based psychopharmacology and psychotherapies used today for this severe mental illness.

Prof. Dimitrios Anastasopoulos  
Lab of Physiology and Clinical Neurophysiology  
School of Nursing – University of Athens  

Rigidity and high level proprioceptive-motor integration in Parkinson’s disease: implementation of the experimental findings into a dynamic head control model.  
Muscle rigidity in Parkinson’s disease represents an involuntary increase in muscle tone that stands out upon passive rotation of a joint. The pathophysiology of rigidity is still not well understood. Head-trunk torque (resistance) during transient passive head rotations has been
measured in patients and normal controls under the instruction to relax the neck muscles. An initial rapid rise in torque followed the rotation onset, similarly in both subject groups. The torque rise continued in patients roughly proportional to head eccentricity almost until the end of the rotation, while it leveled off quickly in controls. Using a dynamic head control model as a tool, the hypothesis of incomplete suppression of reflexive head stabilization by patients has been formulated. A direct consequence of that is the assumption that perceptual and cognitive control on motor behaviour is impaired in Parkinson's disease. Further, it predicts the occurrence of bradykinetic head movements in a subset of patients, presenting with distinct derangements of cognitive functions. This modeling approach may be useful in planning further studies on the origins of motor deficits in Parkinson's disease.

Andreas Androutsellis-Theotokis, Ph.D.
National Institutes of Health
National Institute of Neurological Disorders and Stroke

Comments: Stem cell specific signal transduction in regeneration and cancer
The identification of stem cells in the adult mammalian brain reveals previously untapped regenerative potential. The poor regenerative performance of the adult brain, however, suggests that pharmacological intervention will be necessary to realize this potential. Success in inducing the adult mammalian brain to regenerate and/or repair itself will be influenced by several factors: (1) The abundance and distribution of stem cells that naturally exist in the brain and are capable of generating all the major cell types in the tissue, (2) the natural function of these cells which may be cell replacement and/or the support and protection of compromised cells such as injured neurons, (3) the identification of treatments that can specifically affect the stem cell compartment to achieve desired functions. We have reported a newly identified neural precursor / stem cell that is found throughout the adult rodent and primate central nervous system, is identified by expression of the transcription factor Hes3 and can be targeted by both pro- and anti-angiogenic factors such as Notch ligands and the angiopoietins, and insulin. This allows for independent manipulation of the neural precursor population and the vasculature. Single injections of a combination of pro- and anti-angiogenic factors into the rodent brain maintain stem cell activation with minimal effects on the vasculature. The signal transduction mechanism activated involves a specific modification on the serine residue 727 of the protein STAT3, providing additional means for manipulation including inhibitors of the JAK and p38 MAP kinases. The requirement of neural stem cells for STAT3-serine phosphorylation is in stark contrast to the requirement of most cancer cells for phosphorylation of STAT3 on a tyrosine residue. This result provides a pharmacological target for the stem cell compartment of a tumor and shows that stem cells interpret signal transduction elements differently from cells representing the main mass of a tumor. Activation of endogenous neural precursor cells in vivo results in their rapid expansion and powerful protection of injured dopamine neurons in models of Parkinson's disease and ischemic stroke. These results point to novel therapeutic strategies for neurodegenerative disease and cancer.

References
Cervical Disc Replacement for Treatment of Degenerative Disease:
A Prospective Randomized Trial of the Prestige ST Cervical Disc

The report describes the author’s experience in an ongoing multi-institutional trial of two alternative therapies for cervical disc disease: conventional anterior cervical discectomy with cortical allograft fusion and plating (ACDF), versus discectomy and replacement with Prestige ST cervical disc device. Because the artificial disc preserves motion at the affected vertebral space, it lessens intradiscal pressures at non-operated adjacent segments. It is hoped that the reduction is stress on adjacent discs will prevent or slow their progressive degeneration.

3-4 patients were treated at Lancaster General Hospital by the author. All demonstrated clinical and radiographic evidence of single-level cervical disc disease that was causing radiculopathy and/or myelopathy. Patients were evaluated clinically and radiographically before operation, and afterward at 1, 3, 6, 12 and 24 months (36-month follow-up is ongoing). Outcome measures include neurological functional status, visual analog grade of pain, neck disability index, SF-36 general health survey, and radiographic analysis of motion.

After 24 months, all patients showed improvements in all outcome measures, and none had a significantly adverse outcome. Investigational patients who received the Prestige ST devise all had preservation of motion, and the control patients all had excellent fusion. Although early results showed trends toward improvement in arm pain and neck disability index scores in the investigational group, there were no statistical differences between the groups. The safety and early clinical results of this study are promising. Longer follow-up is needed to identify important potential differences between these treatment approaches.

ACADEMIC POSTS
Lancaster General Hospital-Clinic Instructor
Intern & Family Practice Residency Program-Temple University
Lancaster General Hospital-Clinical Instructor School of Nursing
Pennsylvania State University-Hershey Medical College
Clinical Assistance Professor-NeuroSurgery
1997-present

Dr. Evangelos A. Catsoulis
Member of the New York Academic of Sciences New York University
Department of Reumatology
The rapid advances in scientific technology, particularly in molecular biology, has produced a vital educational need to revise the medical curriculum
Evaluation of programs that emphasize the molecular basis of medical knowledge require periodic updating and reinforcement on a long-term basis and curriculum reforms cannot afford to neglect the latter as a vital component of modern medical education.

Konstantinos Charitakis, MD
Center for Molecular Cardiology, Greenberg Division of Cardiology Department of Medicine, Weill Medical College of Cornell University
The curious case of Perinatal Myosyn (MYH8) involvement in the development of Cardiac Myxomas
Cardiac myxomas, the most common primary cardiac tumor, can occur in a familial disorder referred to as Carney complex (CNC), in which cardiac myxomas occur in the setting of spotty skin pigmentation, extracardiac myxomas, endocrinopathy, and congenital heart defects.
In individuals with a rare CNC variant (typical CNC findings along with the limb contracture syndrome trismus pseudocamptodactyly), we recently identified a R674C missense mutation in the MYH8 gene encoding the perinatal isoform of myosin heavy chain (MyHCpn). MyHCpn was previously thought to be an exclusively skeletal muscle isoform, and its contributions to both heart and skeletal muscle still remain unknown. We hypothesized that normal MyHCpn expression is required for appropriate heart and skeletal muscle development and that MyHCpn mutation modifies embryonic cell proliferation/survival to promote tumorigenesis. To determine if MyHCpn can participate in cardiac muscle development, we defined Myh8 expression patterns during mouse and chick cardiogenesis. Myh8 expression is evident in all cardiac chambers by ED 10.5 in the mouse and by HH 27-28 in the chick. However, by ED 14.5 in the mouse and HH 34-35 in the chick, cardiac Myh8 becomes largely restricted to the atria. Atrial expression is then gradually inactivated, and after birth only rare residual Myh8 positive cells are seen in atria and ventricles. To study further the role of defective MyHCpn in mammalian development, we established a genetically engineered mouse line carrying the orthologue of the R674C mutant MYH8 allele by homologous recombination. Myh8 R674Q/R674Q homozygous mice are growth retarded and die in utero. Thus, MyHCpn is required for normal embryogenesis. Myh8 R674Q/+ heterozygotes appear grossly normal but microscopic examination of skeletal muscle reveals the presence of nemaline rods. Nemaline rods have been reported in cardiac and skeletal myopathies caused by mutations in other sarcomeric proteins. Comparison of the murine histology with a skeletal muscle biopsy from a patient carrying R674Q MYH8 reveals that humans with this MYH8 mutation also exhibit nemaline myopathy. These studies provide the first insights into a hitherto unsuspected role of MyHCpn in mammalian growth and development.

Zissis C. Chroneos, Ph.D.
University of Texas Health Science Center at Tyler

**Immuno-regulatory Properties of Pulmonary Surfactant**

Pulmonary surfactant has two crucial roles in respiratory function; first, as a biophysical entity it reduces surface tension at the air water interface, facilitating gas exchange and alveolar stability during breathing, and, second, as an innate component of the lung’s immune system it helps maintain sterility and balance immune reactions in the distal airways. Pulmonary surfactant consists of 90% lipids and 10% protein. There are four surfactant associated proteins named SP-A, SP-B, SP-C, and SP-D; their distinct interactions with surfactant phospholipids are necessary for the ultra-structural organization, stability, metabolism, and lowering of surface tension. In addition, SP-A and SP-D bind pathogens, inflict damage to microbial membranes, and regulate microbial phagocytosis and activation or deactivation of inflammatory responses by alveolar macrophages. SP-A and SP-D, also known as pulmonary collectins, mediate microbial phagocytosis via SP-A and SP-D receptors and the coordinated induction of other innate receptors. Accumulating evidence indicate that SP-B and SP-C and one or more lipid constituents of surfactant share similar immuno-regulatory properties as SP-A and SP-D. We will present current knoweldge on mechanisms that interface the metabolism of surfactant lipoprotein with lung innate immunity.

Dr. S. George Colt
Prosthodontist-Diplomate of the American Board of Prosthodontics

**Dental Stem Cells**

A new, adult stem cell modality for the treatment of many chronic illnesses and used for regenerative purposes. Scientists are now able to extract stem cells from dental pulps from deciduous (children’s), wisdom (3rd molars) teeth, and periodontal tissues which surround teeth.
Research on the use of these cells will be used in the future for treatment for illnesses such as:
1) Muscular Dystrophy, 2) Multiple Sclerosis, 3) Crohn’s Disease and 4) Parkinson’s disease.
Stem cells have the unique ability to be grown and transformed into specialized cells called
mesenchymal cells to create tissues, organs and other systems in the body. Today, cells are
now removed from teeth and stored in cryo-protected fluid and frozen to 321 ° F - 193 ° C. Baby
teeth are a source that is not controversial as embryonic stem cells are today. They are usually
coming out anyways, and it’s like turning biological waste into precious cells that will be
generated into other tissue and help repair 1) muscle, 2) cardiac tissue after a heart attack, 3)
generate bone, 4) cartilage, nerve, 5) brain and 6) fat tissue.
Lastly, craniofacial tissue engineering promises formation of dental, or oral, and craniofacial
structures lost to congenital anomalies, trauma and diseases. Virtually all craniofacial
structures are derivatives of mesenchymal cells. Structures such as the mandibular condyle,
calvarial bone, cranial suture, subcutaneous adipose tissue have been engineered from
mesenchymal stem cells, growth factor, and/or gene therapy approaches. This represents and
excellent opportunity for Dentistry to take the lead just as it did in the development of dental
titanium implants that is now used routinely in orthopedic reconstructive procedures.

Bibliography
maybe looking for a new line of work in the near future”.
2) Nostrat, I.V. , Smith, C.A., Mullally, P., Olson, L & Nostrat, CA.”Dental pulp cells provide
neurotrophic support for dopaminergic neurons and differentiate into neurons in vitro;
implications for tissue engineering and repair in the nervous system”. European Journal of
potential of stem cells derived from human dental pulps after cryopreservation”. Tissue
4) Chueh, LH & Huang, G.T.J., “Immature teeth with periradicular periodontitis or abscess
undergoing apexogenesis: A paradigm shift”, Journal of Endodontics, 32, (12), pp.1205-1213,

Dr. Arthur C. Cosmas 1 and Dr. Thomas G. Manfredi 2.
1. Department of Physical Therapy, Emeritus, The University of Connecticut,
Storrs, CT, 2. Department of Kinesiology, University of Rhode Island, Kingston, RI

Examination of skeletal muscle characteristics during chronic, sustained hypertension
as a method to diagnose impending left ventricular dysfunction

Chronic, sustained hypertension progressing to left ventricular dysfunction (LVD) and
ultimately to heart failure (HF) is one of the leading causes of disability in contemporary
Western society. The clinical hallmark of HF is decreased cardiac contractility resulting in a
compromised cardiac output (CO) with a decreased ability to adequately perfuse exercising
skeletal muscles resulting in weakness and decreased fatigue resistance. Examination of the
role of peripheral mechanisms as a potential contributing source of functional impairment
indicates that changes like those occurring in skeletal muscles in patients with HF play
an important role in exercise intolerance. Previous studies in our laboratory confirm that
specific morphological features are present in myocardial and skeletal muscle in animals and
humans during compensated (early stage) and decompensated (late stage) HF. These results
encouraged us to examine whether any changes would occur sooner, perhaps as early as
asymptomatic left ventricular dysfunction (ALVD), a reversible stage developing as a result of
chronic, sustained hypertension.
Preliminary data indicates that during ALVD (determined by an increase in left ventricular end diastolic pressure (LVEDP)), and prior to its progression to LVD (early stage HF), specific morphological markers become evident in hypoxic skeletal muscles as peripheral indicators of an overloaded LV myocardium strained to maintain normal cardiac dynamics. During the preliminary stages of AVLD, the heart will remain adequately perfused as a result of intrinsic and extrinsic compensatory mechanisms, while peripheral tissues such as skeletal muscle are becoming increasingly hypoxic. Under conditions of impaired skeletal muscle perfusion, a shift in the percentage of skeletal muscle fiber composition from oxidative and fatigue resistant fibers towards type II glycolytic, fast twitch, anaerobic fibers was evident that is reflective of the transition from aerobic to anaerobic metabolism during the transition to LVD. Unusually large numbers of undersized, oxidatively compromised mitochondria were also observed. A change in dimensions suggests a dynamic plasticity that enables mitochondria to adapt to the level of tissue perfusion and could represent an adaptive mechanism designed to maximize metabolic efficiency in response to skeletal muscle hypoxia. This study examines the morphological characteristics of skeletal muscle during ALVD, a reversible stage before the appearance of clinical symptoms and the transition to LVD (early HF). These markers can be used as positive indicators to predict ALVD before it progresses to early HF and would expedite the initiation of more efficacious treatment strategies to prevent the transition to irreversible LVD culminating in HF.

Denis Hadjiliadis, MD, MHS1, Nancy P Blumenthal, CRNP1, James Mendez, CRNP1, Kevin Carney, RN1, Diana Isaia, CRNP1, Rajiv Lingaraju, BA1, James Lee, MD1, Robert M Kotloff, MD1, Jason D Christie, MD1, Vivek N Ahya, MD1 and Alberto Pochettino, MD1.

AFFILIATION 1Lung Transplant Program, University of Pennsylvania, Philadelphia, Pennsylvania, United States, 19104.

Impact of Pre-Transplant Recipient Obesity on Outcomes After Lung Transplantation

Purpose: Data from the International Registry suggest that pre-transplant recipient obesity can lead to worse outcomes after lung transplantation. We report our experience after consistently accepting obese patients for lung transplantation.

Methods and Materials: Patients transplanted from 5/4/05 to 7/31/08 were included. Demographic data, pre-transplant body mass index (BMI) (if over 30 considered obese) and post-transplant outcomes were collected. Survival analysis was performed by using the Kaplan-Meier method and groups were compared by the log-rank test. Multivariable analysis was performed by Cox proportional hazards.

Results: 45/181 (24.9%) of patients were obese. Obese patients were older (57.0 7.2 vs. 54.0 10.8; p=0.033) and had higher Lung Allocation Score (LAS) (47.5 15.6 vs. 42.5 13.8; p=0.042). Gender and race distribution, performance of single vs. double lung transplant were similar between the groups. Their BMI was 32.4 2.0 vs. 23.9 3.4 (p<0.001). However, survival between obese and non-obese patients was similar as can be seen in the figure (obese vs. non-obese: 1-year 88.4% vs. 79.7%; 3-year 65.7% vs. 68.8%; p=0.989). Results were similar when analyses were limited to patients with COPD or IPF only. Multivariable analysis revealed that BMI had no effect on survival.

Conclusions: In this single center study obese patients had similar survival to non-obese patients despite being older and having higher LAS scores. Future studies will focus on whether obese patients have similar morbidity to non-obese patients.
Angelos Halaris MD  
Department of Psychiatry and Behavioral Neuroscience  
Loyola University Stritch School of Medicine  

Inflammation and depression: assessment, mechanism and treatment  
The association of inflammation with depression has been documented in numerous studies focusing largely on the measurement of pro-inflammatory biomarkers in blood. The mechanism responsible for this association is not clearly established. A likely explanation relates to vagal tone diminution in depression. Sympathetic overdrive is well established in depression and has been linked to stress resulting in homeostatic imbalance favoring sympathetic activation. Diminution of vagal tone results, among other physiological changes, in reduced heart rate variability (HRV) thereby conferring vulnerability for cardiovascular sequelae for the depressed patient. Additionally a vagal anti-inflammatory pathway has been described that is responsible for regulating the release of pro-inflammatory cytokines. Thus, inflammation likely parallels physiological changes in heart function in depressed patients that may have a common link in vagal tone diminution. Restoring the balance between the sympathetic and parasympathetic systems in conjunction with antidepressant drug therapy and restoration of euthymia is expected to reverse inflammation and restore heart rate variability to normalcy. I will present results from an ongoing study demonstrating the link between inflammation and heart rate variability in depression. Using applanation tonometry we assessed endothelial dysfunction in depression and correlated it with HRV and inflammation biomarkers. Additionally, the beneficial effects of effective therapy with a selective SSRI, escitalopram, versus those of a SNRI, venlafaxine, will be presented. Data analyzed to date indicate three pro-inflammatory cytokines have high predictive value in obtaining laboratory confirmation of the diagnosis of major depression.

Elias Iliadis MD FACC FSCAI  
Cooper University Hospital, Camden, USA  

Renal Artery Stenosis: Impact of renal artery diameter on improvement of hypertension control after renal endovascular intervention  
Peripheral vascular disease affects the lives of many of our patients with significant impact on mortality and morbidity specifically quality of life. Renovascular disease and its complications, specifically uncontrolled hypertension and need for dialysis have been recently identified as a target for aggressive interventional therapy. Our hypothesis is that renal artery stenosis and its interventional treatment will result in improvement in control of hypertension and delay the onset of dialysis. We present our 1 year and 3 year single center case controlled study of 135 patients with renal artery stenosis who undergo renal intervention, all but 6 were performed for uncontrolled HTN while remainder were performed for renal failure. 

Demographics: 68% of patients were males with average age 69 years. All suffered from HTN with average of 4.2 medications used for control of hypertension. 29% were diabetic and 44% were altered cholesterol panel. 56% had prior CAD and 62% were smokers (former or current)  

Procedure: RAS treated with Stent 98% of cases with 2 procedural failures. 14 cases of worsened renal function post procedure and 3 requiring short term dialysis. Average stent diameter was 5.9 mm and Average length 16.8mm. Distal embolic protection was used in 3 cases.  

Results: At 1 year, 92 of 129 patients had improved BP control (71%) with average decline in Systolic BP from 158 to 133mmhg (p<0.05). Average BP med usage dropped from 4.2 to 2.2 meds (p=0.06). Of the 6 patients with severe renal insufficiency, 5 of 6 had stabilization of renal function post procedure and none required dialysis year 1, (P<0.05). Receiver Operator Curve analysis identified average diameter of stents associated with impact of HTN at 4.8 mm with limited benefit if artery size less that 4.8 mm.
Discussion: Treatment of Renal artery stenosis has been associated with improvement in HTN control and stabilization of renal function. Our study supports this conclusion and supports the concept that diminutive renal parenchyma and concomitant small arteries contribute little to HTN in renal artery stenosis.

D. Karadaglis MD FRCS (Orth), E. Ntakomyti MD

Byzantine era, was it really dark ages for medicine?

Introduction: Byzantine medicine has been underestimated by a number of authors and considered as dominated by the church, unable to develop and merely not contributing to modern medicine at all. We will show that the truth was almost exactly the opposite.

Discussion: Until the early years of the 20th century it was widely accepted that medicine in Byzantine Empire was practised by unqualified monks who trusted patients’ care to God only. Today is well known that during the twelve centuries of the empire, medicine has progressed and hospitals as we know them today were found for the first time in history. Eastern Roman (Byzantine) doctors considered themselves as successors of the ancient Greeks and considered as their paramount duty to preserve and enrich this inheritance. They contributed to medical literature by compiling studies and epitomes of the Hippocratic and Galenean work (Paulus Aeginite, Alexander of Tralles). Medical Schools with strict curriculum were found in Constantinople, Alexandria and other major cities. Monks or religious students were excluded from some of them and medicine and surgery was practised by public or private doctors. Anatomy was particularly developed and body dissections were permitted by the state. In all societies where religion plays an important role, some diseases especially mental ones were attributed to God, Byzantium was of no exception to this practice, which anyway was less common compared to Greek medicine of the classic years. Hospitals were build in Caesarea (4th century) first and then all over in the empire. They were organised institutions ran by doctors or nurses (nosocomoi) and provided inpatient care on a permanent settlement for the first time in history.

Conclusion: Byzantine doctors contribution to modern medicine is extremely broad and valuable. Greek doctors in diaspora should be aware of this and continue the outstanding tradition of Greek medicine.

D Karadaglis MD FRCS(Orth), K Tsitskaris MD MRCS, R Varma FRCS.

Understanding The kinematics of The Knee Joint

Introduction: The knee is a complex joint with three participating bones and complex movement with six degrees of freedom. We studied the kinematic behaviour of the joint which helps the surgeon to comprehend the pathophysiology of the joint and expectations of the knee replacement surgery.

Material and Method: The tibial rotation and the screw home mechanism were studied in 55 consecutive patients (31 females and 24 males) with diagnosed knee osteoarthritis pre and post operatively. The assessment was performed by consultant orthopaedic surgeons using the trackers and the software of a navigation system, prior to any soft tissue release. All measurements were repeated after the completion of surgery.

The Student t-test was used for the statistical analysis.

Results: We identified 3 different patterns of tibial rotation during knee flexion.
1. In 26 knees the normal tibial rotation pattern was recorded with the tibia rotating internaly during knee flexion (mean rotation: 15.5°).
2. In 22 knees (40%) we found that the tibia was rotating internaly and then externally as the flexion was progressing (mean rotation: 6.7°).
3. In 7 joints (13%) we recorded a reverse tibial rotation namely the tibia was rotating externally in all flexion increments (mean rotation: 2.2°).
We also recorded that most of the tibial rotation occurs in the first 0-30° of flexion (70%) p<0.001. The mean tibial rotation upon flexion was reduced from 9.4° to 5.3° (p<0.05) following TKR. Whilst most of the tibial rotation in the pre-operative knee occurs in the first 3° of flexion (p<0.001) in the knee arthroplasty the tibial rotation is evenly distributed in all increments of flexion. Computer assisted TKR does not improve the abnormal tibial rotation upon flexion. Conclusion: The kinematics of the knee are complicated and especially in the osteoarthritic joint. They are partially corrected by knee replacement surgery. The surgeon needs to be aware of all the factors influencing the normal movement of the joint.

Domenica Karavitaki
Harvard Medical School, Department of Neurobiology, Boston, MA, USA.

Imaging the links unraveling hearing from hearing impairment
Sound is fundamentally a mechanical stimulus, which is detected by hair cells of the inner ear. Hair cells are so named because each bears a specialized array of hairs, called stereocilia, extending from their apical surfaces. Adjacent stereocilia are joined together by a variety of links with nanometer dimensions; mutations of these links are known to cause inherited deafness in mice and humans. Thus investigating the role of these links is basic in our understanding of hearing and hearing disorders. Studies of live inner ear cells have been hindered by inaccessibility of the hearing organ and by the small (nanometer) and very fast (in the high kilohertz region) motions of the cells. We have designed a system to visualize and quantify live high-speed nanometer motions of cells in the inner ear. In this talk I will be introducing the system and present results that have allowed us to identify the links that are key players in the propagation of acoustic stimuli in the inner ear. Mutations in these particular links may be one of the causes of prelingual hearing impairment in humans.

Steven J. Kavros, DPM, Meegan Van Straaten, PT, Krista Coleman-Wood, PT, Ph.D., Kenton R. Kaufman, Ph.D., P.E.

Effective Offloading of the Neuropathic Foot with a Flat Sole verses a Rocker Sole Healing Shoe. Rochester, Minnesota
Background: Foot ulceration is one of the leading causes of hospitalization for patients with diabetes mellitus. Hard soled shoes are the standard of care for treating neuropathic ulcers of the forefoot in the setting of diabetes with and without neuropathy. Recently, a rocker sole modification to a stiff soled shoe has become available. This study was intended to evaluate offloading of the neuropathic forefoot comparing a rocker sole design verses the flat sole with and without a Plastizote insert.
Methods: Fifteen subjects with a history of open wounds were recruited for this study. All subjects had neuropathy with an active ulceration of the forefoot or a history of recent ulceration. Plantar surface foot pressures were measured objectively (F-Scan Mobile Research 5.72, Tekscan, Boston, MA Peak pressures were obtained in four regions of the foot: hallux, metatarsal head, midfoot and heel. A two factor repeated measures ANOVA was performed to test for statistical significance at p=0.05.
Result: Offloading of all four foot regions was better with the use of the rocker sole and rocker sole shoe with Plastizote insert. The results show significant (p<0.05) effects for the rocker sole shoe and the Plastizote insert with respect to the hallux, metatarsals and heel. There was no statistical significance for the peak plantar pressure at the midfoot (p=0.67) with respect to the shoe type. Use of the Plastizote insert also reduced peak pressure in this region. Conclusion: Offloading the neuropathic foot is better accomplished with use of a rocker sole shoe with a Plastizote insert. This combination reduces the peak plantar pressure.
significantly under the hallux, metatarsal heads and heel as compared to a flat soled shoe. The reduction in the plantar pressure below the threshold of ulceration in the neuropathic foot is complementary in the care of patients with neuropathic ulcerations of the feet.

S.J. Kavros 1, 3, K.T. Delis 2, N.S. Turner 1, A.E. Voll 1, D.A. Liedl 3, P. Gloviczki 2, T.W. Rooke 3
1 Department of Orthopedic Surgery, Mayo Clinic, Rochester, MN, USA
2 Division of Vascular Surgery, Mayo Clinic, Rochester, MN, USA
3 Vascular Ulcer and Wound Healing Center, Gonda Vascular Center, Mayo Clinic, Rochester, MN, USA

Improving limb salvage in critical ischemia with intermittent pneumatic compression: a controlled study with 18 months follow up

**Background:** Intermittent pneumatic compression (IPC) is an effective method of leg inflow enhancement and amelioration of intermittent claudication in patients with peripheral arterial disease (PAD). The purpose of this study was to evaluate the clinical role of IPC in the treatment of patients with chronic critical limb ischemia (CCLI), tissue loss and non-healing wounds of the foot on whom peripheral arterial revascularization had been exhausted.

**Methods:** Performed in a community and multidisciplinary health care clinic, this study comprises 2 groups: group 1 consisted of 24 patients, median age 70 (IQR: 68.7-71.3) years, who received IPC for tissue loss and non-healing wounds of the foot secondary to CCLI, in addition to wound care [IPC Group]; group 2 consisted of 24 patients, median age 69 (IQR: 65.7-70.3) years, who received wound care for tissue loss and non-healing wounds of the foot secondary to CCLI, without the benefit of IPC [Control Group]. Except the patients’ willingness to undergo IPC therapy study group allocation was otherwise unselected. Laboratory examination included determination of the resting ankle brachial pressure index (ABPI), transcutaneous oximetry (TcPO2), duplex graft surveillance and foot radiography. Outcome was considered favorable if complete healing and limb salvage occurred, and adverse if the patient had to undergo a below knee amputation (BKA) subsequent to failure/deterioration of wound healing. Patients were followed up for 18 months. Standard wound care consisted of weekly debridement and biologic dressings for antimicrobial effect. IPC was delivered at an inflation pressure of 85-95 mm Hg, applied for 2 seconds with rapid rise, 3 cycles per minute; three 2-hourly sessions per day were requested. Patients with recent (≤ 6 months) deep vein thrombosis were excluded.

**Results:** Baseline differences in demography, cardiovascular risk factors (diabetes, smoking, hypertension, dyslipidemia, renal impairment) and severity of CCLI (ABPIs, TcPO2, prior arterial reconstruction) were not significant. Similarly, there was no significant difference in the type of local foot amputations that the two groups had had in association with their tissue loss. In the Control Group 20 patients (83%) failed to heal their foot wounds and underwent a BKA; the remaining 4 (17%, 95% CI: 0.59% to 32.7%) had complete healing and limb salvage. In the IPC Group 14 patients (58%, 95% CI: 37.1% to 79.6%) had complete foot wound healing and limb salvage. Ten patients (42%) in this group underwent BKA after failing healing of the foot wounds. Both wound healing and limb salvage were significantly better in the IPC group (p<0.01). On study completion TcPO2 on sitting was higher in the IPC Group than the Control Group (p=0.0038).

**Conclusion:** Our study data reveal that IPC implementation used as an adjunct to wound care in patients with chronic CLI and chronic non-healing wounds/tissue loss improves the likelihood of wound healing and limb salvage, when established treatment alternatives in current practice are lacking. This controlled study adds to the momentum of IPC clinical efficacy in CCLI set by previously published case series, compelling the pursuit of large scale multicentric level-1 studies to substantiate its actual clinical role, relative indications and to enhance our insight into the pertinent physiological mechanisms.
Vassilis Koliatsos  
Associate Professor Neuropathology, Neurology and Psychiatry and Behavioral Sciences  
Johns Hopkins University School of Medicine  
Stulman Scholar in Clinical Neuropsychiatry, Sheppard and Enoch Pratt Hospital  

Two decades of experimental treatments for neural degeneration:  
from trophic factors to stem cells  
My main research interest is basic mechanisms of injury and repair in the nervous system and the role of trophic signals and neurogenic niches/exogenous stem cells in recovery and treatment. I am especially interested in spontaneous and therapeutic repair of neural circuits. Current projects in my laboratory in the Division of Neuropathology at Johns Hopkins are repair of short- and long-axon circuits in the spinal cord and forebrain using human stem cells and neurogenesis in limbic cortex.  
I am also a Board-certified neuropsychiatrist and take care of patients with cognitive and behavioral problems due to acquired brain injury or neurodegenerative disease.

Despina Komninou, M.D., Ph.D., C.N.S.  
Mezitis Education and Research Institute, New York, NY, USA  

Epigenetic Alterations in Aging and Cancer  
Epigenetic events result in changes that do not affect the gene’s sequence of DNA (genotype), but alter the gene expression (phenotype), affecting susceptibility of complex diseases including cancer and other age-related conditions such as cardiovascular disease, type II diabetes and obesity. Epigenetic alterations are propagated through cell division. They accumulate over lifetime and are influenced by environmental/dietary triggers dictating epigenetic “signatures” that alter metabolic pathways linking the process of aging with cancer risk. A wide spectrum of multiple age-related epigenetic “hits”, from promoter hypermethylation, histone deacetylation and gene silencing to impaired NF-κB signaling with up-regulation of cytokines and chronic inflammation, may account for predisposition to age-associated malignancies such as colon, breast (postmenopausal) and prostate cancer. The cancer-prone phenotype of old age is associated with insulin resistance and its related metabolic syndrome, eliciting many of the signs of early aging. In fact, longevity studies have often implicated genes that regulate lifespan through insulin or insulin-like signaling pathways. Interestingly, a family of epigenetic enzymes with histone deacetylase (HDAC) activity, known as sirtuins, are involved in the extension of lifespan mediated by caloric restriction (CR). Sirtuins act by regulating gene expression, DNA repair, insulin sensitivity, NF-κB signaling and apoptosis. CR exerts protective effects on carcinogenesis by maintaining an insulin-sensitive phenotype characterized by lifelong maintenance of optimal levels of key fat-derived cytokines (lipokines). Mechanistic studies with models of CR or with “CR-mimetics” may provide insight on how the aging-related insulin resistance and subsequent chronic inflammation might modulate epigenetic processes that affect age-associated diseases such as the development and progression of cancer. A greater understanding of the interrelations among diet, metabolism, aging, inflammation and cancer at the epigenetic level of regulation will help us design new dietary/pharmacological strategies to prevent, or even reverse, the pathologic phenotypes that threaten the rapidly increasing population of aging overweight individuals.
Aliki Kosteli, Eiji Sugaru, Jason Lei, Anthony W. Ferrante
Department of Medicine, Naomi Berrie Diabetes Center, Columbia University

An Immune Response to Weight Loss and Lipolysis
The immune response to obesity includes myeloid cell activation and recruitment to key metabolic organs, including adipose tissue. Obesity-induced recruitment of myeloid cells has been implicated in the development of insulin resistance, hepatic steatosis, and atherosclerosis. The immune system response to non-pathologic metabolic changes has been less well studied. Here we characterize the response of adipose tissue macrophages (ATMs) to weight loss and identify a role for lipolysis in the recruitment and accumulation of ATMs. We find that the immune response to weight loss involves two distinct periods. During the initial period of negative energy balance, ATMs increase, while insulin resistance and the expression of inflammatory molecules remain high. With continued weight loss, ATMs, insulin resistance and inflammation are reduced. The peak in ATM number coincides with the peak in the concentration of serum free fatty acids (FFA), suggesting that lipolysis may drive ATM accumulation. Indeed, inhibition of lipolysis during weight loss reduces the number of ATMs, while fasting or pharmacologically induced lipolysis rapidly increases ATM accumulation and lipid uptake by macrophages. These data suggest that local lipid fluxes regulate ATM recruitment and favor formation of lipid-laden macrophages.

Dimitrios Kostopoulos, PT, Ph.D., DSc
Hands-On Physical Therapy, New York, USA
Hellenic Medical Society of New York

Treatment of carpal tunnel syndrome: a review of the non-surgical approaches with emphasis in neural mobilization
Submitted under Neurological Session
Carpal tunnel syndrome (CTS) results from the entrapment of the median nerve at the wrist. It is the most common entrapment syndrome causing frequent disability especially to working populations.
Aside from the surgical release approach there are other non-invasive therapeutic methods for the treatment of CTS. One of the newest and very effective non-surgical approaches for the treatment of CTS as well as other entrapment syndromes is the neuromobilization technique. This presentation will review the evidence regarding neurodynamic testing and neuromobilization of the median nerve as an effective treatment approach to CTS.

Maria Koulmanda
Departments of Surgery Harvard Medical School, Transplant Research Institute, Beth Israel Deaconess Medical Center, Boston, MA. USA

Self-tolerance in t1d be restored by reversal of adverse inflammation
In hosts with diabetogenic auto-immunity, the onset of overt disease, hyperglycemia, is known to coincide with loss of a critical portion of the islet cell mass. Thus, restoration of the islet cell mass should be sufficient to create euglycemia if a deficit in insulin producing tissue is the sole cause of disease. It is notable that many potent T-cell tolerizing therapies have failed to enable restoration of euglycemia in new onset T1D NOD mice with or without transplantation of islets. We now report that new onset T1D is associated with inflammation induced insulin resistance created by faulty phosphorylation of crucial elements of the insulin signaling pathway (insulin receptor and IRS-1). To test the hypotheses that inflammation,
insulin resistance and T1DM disease expression are linked we have tested the effects of select anti-inflammatory agents in T1DM NOD mice. For example the acute phase reactant alpha-1-antitrypsin (AAT) tilts the balance of inflammation towards expression of anti-inflammatory cytokines but we find AAT does not inhibit APC-free T-cell activation. We now report that treatment for 15 days with AAT or 20 days with anti-TNF-α (i) restores a euglycemic state in 14 of 16 or 22 of 24 treated new onset diabetic NOD mice (ii) ablated insulin resistance and (iii) produces specific tolerance to syngeneic, not acceptance of allogeneic, islets that is manifest long after cessation of treatment of new onset diabetic NODs while preserving other immune responses. In this experiment spontaneously diabetic (NOD-sp), or formerly diabetic euglycemic AAT or anti-TNF-α treated NOD rendered diabetic with STZ (NOD-sp/stz) were transplanted with allogeneic or syngeneic islets (see Table). Despite cessation of therapy, remission of the diabetic state is durable throughout long follow periods. Remarkably, treatments with agents that primarily alter the fine texture of inflammation, and may not directly target T cells restore self-tolerance to beta cells in NOD-sp mice. In short, the restoration of euglycemia, self-tolerance, and of and the faulty insulin receptor and IRS-1 phosphorylation patterns can be corrected by treatment with alpha1 anti-trypsin (ATT), an acute phase reactant with potent anti-inflammatory activity, and/or anti-TNF-α.

Rania D. Kovaiou, Ulrika Lundin, Sascha Dammeier, Klaus M Weinberger
BIOCRATES Life Sciences AG, Innrain 66, A-6020 Innsbruck, Austria

Biomarker Discovery in Diabetic Nephropathy by Targeted Metabolomics

Diabetic nephropathy (DN) is a chronic kidney disease (CKD) and one of the most severe complications from diabetes mellitus type II. The glomerular and tubular dysfunctions irreversibly lead to end stage renal disease (ESRD) and the treatment of these patients (e.g. dialysis, kidney transplants) represents a huge economic burden for the society. Due to an epidemiologic increase of type II diabetes and the fact that conventional diagnostic markers like creatinine and albumin are insensitive and only able to identify already existing kidney damage this project aimed at finding novel and more sensitive metabolic biomarkers from different classes of metabolites covering the main pathways of intermediary metabolism with the aim to be able to diagnose appearance and predict progression of DN.

Six cohorts, diabetics and non diabetics at different stages of nephropathy, of urine and plasma samples, respectively, were collected at Montpellier University Hospital. Targeted metabolomics was used to quantify about 320 metabolites from plasma and 300 from urine including the classes amino acids, biogenic amines, polyamines, acylcarnitines, phosphatidylcholines, reducing mono- and oligosaccharides, sphingomyelins, eicosanoids, bile acids and energy metabolism intermediates in the presence of isotopically labeled internal standards and determined by FIA- and HPLC-tandem mass spectrometry with multiple reaction monitoring (MRM) using a Sciex API 4000 QTrap with electrospray ionization. Additionally, 160 fatty acids were quantified in plasma by GC-MS/MS. The datasets were analyzed with unsupervised principal components analysis (PCA) and supervised partial least squares-discriminant analysis (PLS-DA) using MarkerView software.

The analyses were first performed in a blinded approach to check the biochemical plausibility with assumed cohorts to ascertain an unbiased sample analysis, and thereafter in an unblinded approach. The resulting scores plots from pairwise comparisons using PLS-DA on the data sets gave excellent separations between all stages of kidney disease and the dominant metabolites contributing to the observed clustering were identified in the loadings plot and with an additional t-test. Some earlier findings were confirmed, e.g. an increase of the symmetric dimethylarginine to arginine (Arg) ratio which is already an established marker for kidney damage. This alteration is most probably due to an increased activity of the protein
arginine N-methyltransferase II. Depletion of tryptophane (Trp) in progressing kidney disease has also been observed before and might be due to an up-regulation of the indoleamine-2,3-dioxygenase enzyme in the catabolism of Trp. Alterations in the urea cycle could be observed through an increase of the ratios of citrulline (Cit) to Arg in higher stages of CKD and the ratio of ornithine (Orn) to Arg indicated that arginase is only activated in non diabetic nephropathy. Some novel biomarkers were identified including the acylcarnitines glutaryl-carnitine and pelargonylcarnitine as well as the TCA cycle intermediates α-ketoglutarate and fumarate. Lastly, it could be observed that there is a substantial degree of oxidative stress associated with progression of CKD, supporting earlier findings. Activity of the enzyme phenylalanine hydroxylase was studied through the ratio tyrosine to phenylalanine, whose decrease suggested higher levels of oxidative stress. Methionine-sulfoxide is one of the most direct indicators of oxidation processes by reactive oxygen species and an increase of its ratio to methionine further supported the fact that oxidative stress might serve as a progression parameter in the clinical assessment and, potentially, even as a prognostic marker.

Christos Mantzoros, MD DSc FACP FACE
Associate Professor
Harvard Medical School and Harvard School of Public Health

Diabetes
The adipose tissue is increasingly being recognized as a new endocrine organ. Recent advances in the biology of adipocyte secreted hormones including leptin and adiponectin as well as the physiology and emerging clinical applications of these adipocytokines will be presented. The speaker will present his own work in the field which, in a true translational mode, has allowed to develop new diagnostics and pharmaceuticals by bringing molecules from the basic research to the clinical trials arena.

Spyros G.E. Mezitis MD Ph.D.
Weill Medical College of Cornell University, New York – Presbyterian Hospital, Lenox Hill Hospital, New York, USA

Emerging Strategies for Managing Diabetes Patients
Diabetes is a vascular disease and an increasing epidemic. In 2009, there will be more than 250 million diabetics worldwide with 20 million in the United States of America. Diabetes has been associated with cardiovascular disease and stroke. In the past year, new recommendations for inpatient glycemic control and new health care team based strategies have demonstrated better diabetes management.

The American Association of Clinical Endocrinologists and the American Diabetes Association developed an updated consensus statement recommending revised glucose targets of 140 to 180 mg/dl for critically ill patients in Intensive Care Unit settings and a multidisciplinary approach for care from admission to discharge from the hospital. The responsibility for management of hyperglycemia shifts from the health care team to the patient following hospital discharge. The lack of time physicians have to spend with patients and the lack of timely appropriate clinical decisions are being tackled with detailed drug treatment algorithms that patients use to control their diabetes, hypertension and hyperlipidemia. Furthermore, continuous glucose monitoring is becoming increasingly available, and Internet-based collaborative care of patients with their providers improved glycemic control in type 2 diabetes. Lastly, the U.S. National Diabetes Education Program provides health care providers with an up to date summary of patient requirements to meet guidelines for quality care. It remains to be seen if these population based interventions improve diabetic patients’ cardiovascular outcomes.
Nicholas H.E. Mezitis, MD  
Medical Director, Clinical Consultant Services International, Senior Attending Physician  
St. Luke’s/Roosevelt Hospital Center, Assistant Professor of Clinical Medicine, Columbia University College of Physicians and Surgeons, Mezitis Education and Research Institute  

**Insulin, Insulin Analogues and Cellular Apoptosis**  
Insulin is increasingly recognized for its varied and potent metabolic effects, which supersede the classic glucocentric model and impact on reproduction, neural pathways, global fuel utilization parameters and cellular longevity. Some of these effects relate to the insulin receptor and others to signals activating IGF-1 and other pathways. Insulin analogues seek to refine features of insulin that are of particular value in therapeutics, through modifications on the insulin molecule.  
These changes define the avidity with which the new molecules bind to the insulin and other receptors and relate directly to postreceptor events. The sophistication of these molecular designer techniques and our improved understanding of receptor events permits us to look beyond pharmacokinetics to the broad implications of chronic peripheral iatrogenic hyperinsulinemia and long-term exposure to insulin analogues.  
My presentation will provide a concise review of our current state of knowledge as a basis for reasoned interpretation of current controversies in insulin therapy.

Ioannis Michailidis  
Columbia University, New York, USA  
Nerve impulses for movement and muscle control originate from the brain and travel along nerve fibers to neuromuscular synapses. Every step of this process depends on calcium ions (Ca2+). To trigger neurotransmitter release in all synapses along the way, and to finally excite muscles for contraction, Ca2+ enter neurons and muscle cells through highly specialized proteins engineered for permeation, called voltage-dependent Ca2+ channels (VDCCs). Strong data in our laboratory indicate that VDCCs exist on cellular membranes as â€œ-hemichannelâ€​moleies, products of cleavage sites in the middle of the protein sequence. Using confocal microscopy, biochemistry and molecular biology, we have evidence that the alpha1 subunit of L-type VDCCs on the plasma membrane of hippocampal neurons can be proteolytically cleaved somewhere between the cytoplasmic N-terminus and the third repeat, thus generating two hemichannels. Proteolysis appears to be regulated by Ca2+ flowing through L-type channels. This may constitute an activity-dependent feedback mechanism to judiciously control the number of channels on the plasma membrane. These fragments are much shorter than previously described short forms of VDCCs generated from their terminal trimming, and are previously unthought of for either the VDCC protein family or other ion channels. Since we can observe this cleavage directly upon the plasma membrane, it is bound to affect Ca2+ permeation by altering the properties of surface VDCCs. In turn, this could be impacting the electrochemical properties of neuronal and muscle cells and neurotransmission, thus providing a key path for controlling nerve and muscle states.

Vasiliki A. Moragianni, MD, MS  
Division of Reproductive Endocrinology & Infertility  
Department of Obstetrics & Gynecology  
Beth Israel Deaconess Medical Center / Boston IVF  
Harvard Medical School  
Cancer and fertility preservation.  
Constant advances in the treatment of cancer have significantly extended the life expectancy
and improved the quality of life for millions of cancer survivors around the world. Since a large number of these patients are or will be of reproductive age there is a real need for fertility preservation options.

For women of reproductive age who desire to preserve their fertility prior to undergoing cancer treatment embryo cryopreservation is the most established technique. Cryopreservation of oocytes with or without in vitro maturation, ovarian suppression as well as transposition and transplantation of ovarian tissue have also yielded success in smaller studies but are not currently considered first-line therapies. In the case of specific gynecologic malignancies, more conservative surgical approaches could also aid in fertility preservation.

For male cancer patients who desire fertility preservation sperm cryopreservation is the most viable option that is currently available, while testicular tissue cryopreservation remains experimental.

Regardless of the technique utilized for fertility preservation, the approach to the young patient with the diagnosis of cancer mandates an interdisciplinary approach with a team that includes representation from the fields of medicine, surgery, radiation oncology, reproductive endocrinology, urology, obstetrics and gynecology, genetics, psychology, bioethics and health law.

Dr Eleni Palazidou MD Ph.D. MRCP FRCPSYCH  
Consultant Psychiatrist  
East London Foundation Trust

The recognition and treatment of bipolar depression

Depressive episodes, unipolar or bipolar, are common states and are associated with high morbidity, co-morbidity and mortality. The WHO Global Burden of disease study (1990) estimates the contribution of unipolar disorder as 10.7% and bipolar 3% of the total of the leading medical causes of disability in the world. Prompt recognition and effective treatment is essential.

In 50% of cases the first episode of illness in bipolar disorder is that of depression. As many as 20% of patients treated with antidepressants for unipolar depression, by a psychiatrist, are actually suffering with bipolar disorder (Calabrese et al, 2006). Making a distinction between unipolar and bipolar depression is essential as this has major implications for its pharmacological treatment.

The evidence shows that antidepressant drug use in bipolar depression can cause a manic switch in 35% of patients; they can also increase the number of episodes of the disorder while decreasing the duration of illness and hence accelerate the cycle of mood swings (rapid cycling) in 26% (Altshuler et al, 1995; Ghaemi et al, 2000). The effectiveness of antidepressants in treating bipolar depression has also been questioned. The disorder subtype and some clinical and other features have been identified as risk factors in the induction of mania.

This lecture will discuss the evidence on the recognition of bipolar depression and the maze of the pharmacological treatment of this condition.

Panagiotis Papageorgis & Sam Thiagalingam  
Department of Medicine (Genetics & Molecular Medicine Programs and Cancer Research Center),  
Department of Genetics & Genomics, Department of Pathology & Laboratory Medicine  
Boston University School of Medicine

The establishment and maintenance of aberrant DNA methylation patterns is a critical process that promotes breast cancer progression. Despite the advances in the field of cancer epigenetics, most of the efforts have been focused on describing the gene targets
of DNA methylation rather than the regulation of the DNA methylation machinery itself. Here we describe the characterization and use of a breast cancer cell line model system to investigate the molecular mechanisms that regulate the epigenetic alterations of genes involved in epithelial-mesenchymal transition (EMT). We found that breast cancer cells which have undergone EMT exhibit overactive TGFβ signaling and loss of expression of genes, including CDH1, CLDN4, CGN and KLK10, mediated by epigenetic alterations resulting from DNA hypermethylation of their promoter region. Consistent with our notion that activated TGFβ-Smad signaling is required to maintain epigenetically silenced state of epithelial genes, disruption of Smad signaling due to Smad7 overexpression or depletion of Smad2, but not Smad4, in mesenchymal-like breast cancer cells resulted in DNA demethylation and re-expression of the corresponding genes. These changes were accompanied with acquisition of epithelial morphology and suppression of the invasive properties of the cells. During this process, there was decreased DNMT1 binding activity, suggesting that failure to maintain methylation of the newly synthesized DNA during replication could lead to demethylation of the target regulatory regions. In summary, our studies revealed, for the first time, a link between hyperactive TGFβ-TGFβR-Smad2 signaling axis and maintenance of epigenetic silencing of critical target genes that may facilitate breast cancer progression.

Peter G. Passias, MD

Novel Endoscopically Assisted Retropharyngeal Surgery for Irreducible Atlantoaxial Dislocations

Introduction: We present a novel technique of endoscopically assisted anterior release and reduction through an anterolateral retropharyngeal approach for treatment of irreducible atlantoaxial dislocation (IAAD).

Methods: 21 consecutive IAAD patients with mean age of 32 years underwent endoscopically assisted anterior release and reduction through the anterolateral retropharyngeal approach with posterior fixation. Primary pathologies included 8 late odontoid fractures, 7 cases of os odontoideum, 5 with laxity of the transverse ligament, and 1 with atlantooccipital assimilation with a hypoplastic odontoid. Neurologic status was evaluated using the Japanese Orthopedic Association (JOA) system. Radiographic parameters measured included the atlantodental interval (ADI) and cervicomedullary angle (CMA). Follow-up data was obtained for a minimum of 31 months.

Results: Anatomical reduction was achieved in 20 cases and near-anatomical reduction in one. All patients had an uneventful recovery with significant improvement in neurological function and radiographic parameters. No complications were seen. The ADI was corrected from an average 6.3 mm preoperatively to 2.7 mm postoperatively (p<0.01). The cervicomedullary angle was corrected from an average 109° preoperatively to 152° postoperatively (p<0.01). Preoperative muscle strength was on average 3.5 (on scale from 1 to 5) and improved postoperatively to 4.5 (p<0.01). The average preoperative and postoperative JOA scores were 9.6 and 15.5, respectively, indicating 82.8% improvement.

Discussion: The best outcomes for the treatment of IAAD have been reported using transoral reduction with anterior or posterior fixation; however, high complication rates are seen. Endoscopically assisted anterior retropharyngeal release combined with posterior fixation is a safe and effective alternative for the treatment of IAAD.

Peter G. Passias, MD

In vivo Kinematics of Discogenic Low Back Pain (LBP) Patients Prior to Fusion

Introduction: This study quantifies the in vivo lumbar segmental motion under weight bearing conditions in patients with discogenic LBP prior to arthrodesis.
Methods: Eight patients with discogenic LBP scheduled to undergo L4-5, L5-S1, or L4-S1 arthrodesis were recruited. Kinematics of the lumbar segments was determined using MR and fluoroscopic imaging and computer modeling. Motions at the vertebral levels were compared to aged matched controls using ANOVA (p < 0.05).

Results: During flexion and extension the flexion angle were within 4.6° for all levels. However, large coupled motions in bend and twist rotations as well as in LR translation were observed. During left-right bend, large bend rotation was observed at inferior adjacent levels (L5-S1 = 12.7°). During left-right twist, large twist rotation were found up to 13.2° at L2-L3 and L3-4 and large coupled translation at L5-S1 were found (AP- 8.9mm, PD- 5.7mm and flexion 7.3°) below a symptomatic L4-5 disc.

Discussion: Traditional surgical treatments for discogenic LBP address instability at the involved segment by eliminating motion. Recently, attempts have been made to reproduce physiologic patterns of motion. However, abnormal motion patterns having not yet been identified. We found that discogenic LBP patients showed significant increases in motion at asymptomatic levels compared to the same levels in the control group. In contrast, decreased motion was seen at the levels contributing to the discogenic LBP. The abnormal movements were dependent on level, posture, and proximity to the intended fusion level(s). This data described that abnormal motion characteristics are present in LBP patients prior to undergoing fusion.

Peter G. Passias, MD
Study Design: A prospective study

Objective: To evaluate a novel technique involving an endoscopically assisted anterior release and reduction through an anterolateral retropharyngeal approach with minimum follow-up interval of 31 months.

Summary of Background Data: Irreducible atlantoaxial dislocation (IAAD) is typically a chronic process that requires surgical treatment. However, the current literature does not agree on the single best method of treatment. Previously, the best outcomes have been reported with transoral reduction followed by anterior or posterior fixation. Despite recent innovations, numerous complications remain associated with this approach.

Methods: Twenty-one consecutive IAAD patients with mean age of 32 years underwent endoscopically assisted anterior release and reduction through the anterolateral retropharyngeal approach followed by posterior fixation. The primary pathologies included 8 late odontoid fractures, 7 cases of os odontoideum, 5 with relaxation of the transverse ligament, and 1 with atlantoccipital assimilation with a hypoplastic odontoid. Neurologic status was evaluated using the Japanese Orthopedic Association (JOA) scoring system. Radiographic parameters including the atlantodental interval (ADI) and cervicomedullary angle (CMA) were also measured. Follow-up data was obtained for a minimum of 31 months.

Results: Anatomical reduction was achieved in 20 cases and near-anatomical reduction in one case. All patients had an uneventful recovery with significant improvement in neurological function and radiographic parameters. No complications were seen. The atlantodental interval was corrected from an average 6.3 mm preoperatively to 2.7 mm postoperatively (p<0.01). The cervicomedullary angle was also corrected from an average 109° preoperatively to 152° postoperatively (p<0.01). Preoperative muscle strength was on average 3.5 (on scale from 1 to 5) and improved postoperatively to 4.5 (p<0.01). The average preoperative and postoperative JOA scores were 9.6 and 15.5, respectively, indicating 82.8% improvement.

Conclusions: Endoscopically assisted anterior retropharyngeal release combined with posterior fixation is a safe and effective alternative for the treatment of irreducible atlantoaxial dislocation.
Key words: Atlanto-axial joint; Dislocation; Endoscopy; Anterolateral retropharyngeal approach

Key points:
1. Although they are typically treated surgically, the optimal treatment remains a dilemma and high complication rates persist.
2. Endoscopically assisted anterior release and reduction through an anterolateral retropharyngeal approach with posterior fixation offers a novel treatment approach that optimizes visualization and avoids many of the complications inherent to transoral approaches.
3. This surgical technique was effective at obtaining an anatomic reduction and minimizing complications from surgery.
4. At a minimum follow-up of 31 months, patients treated with this approach in this series demonstrated improved JOA scores, as well as improvements in their ADI and CMA intervals.

Mini Abstract: IAAD remains a treatment challenge. We treated 21 IAAD patients prospectively with endoscopically assisted anterior release and reduction through the anterolateral retropharyngeal approach followed by posterior fixation. This technique resulted in improved JOA scores and improved CMA and ADI measurements at a minimum follow-up of 31 months without significant complications.

1Passias P; 1,2Wang, S; 1Kozanek, M; 1Grottkau, B E; 1Wood, K B; +1Li, G
+1Bioengineering Laboratory, Department of Orthopaedics, Massachusetts General Hospital/Harvard Medical School, Boston, MA
2Department of Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, MA

In-vivo Lumbar Intervertebral Disc Geometric Deformation during Weightbearing Posture

Introduction: Degeneration of the intervertebral disc is responsible for the vast majority of back pain. Significant efforts have been made to characterize lumbar intervertebral disc (IVD) deformation during physiologic weight-bearing in an attempt at understanding the mechanisms resulting in disc related spinal disorders and improving their surgical treatment. However, the details of IVD deformation, including the magnitude and direction of tension and shear, have yet to be clearly defined in-vivo mainly due to technical limitations. This study investigated lumbar IVD geometric deformation from adjacent level translation and orientation of the endplates using a combined MR and fluoroscopic image matching technique. Tensile and shear deformation was quantified by comparing the weight-bearing (standing) position to non-weightbearing (supine) position at the L2-L5 vertebral levels.

Method: Eight asymptomatic subjects with an age ranging from 50-60 years were recruited for this study under the authors’ institutional review board approval. First, the lumbar segments were scanned using a 3T MR scanner in the supine position and 3D mesh models of the L2-L5 vertebrae were constructed to quantify non-weightbearing vertebral position (Fig 1). Next, two fluoroscopes positioned perpendicular to each other took simultaneous images of the subject standing in the common field of view. The standing posture was carefully examined to ensure the upright position. Using 3D and 2D registration, the MR models were matched to the osseous outlines of the images from the two orthogonal views to quantify vertebral position while weight-bearing [1]. Based on the orientation and translation of the endplates of adjacent levels L2-3, L3-4 and L4-5, deformation-gradient tensor was calculated using the finite-strain theorem [2]. Points were taken from the endplates and tensile deformations were calculated with respect to the disc height (tension/disc height) using the deformation-gradient tensor. Similarly, shear magnitude (translation/disc height) and direction were determined.

Fig 1: 3D model obtained from MRI scan. Arrows show the disc shear direction caused by weightbearing and the lordosis of lumbar spine.
Result: Similar tensile deformation patterns were found for each patient at corresponding levels. We therefore standardized the patterns according to the size of the disc and mapped them in order to determine the average tensile patterns. Going from non-weightbearing to the standing (weightbearing) position, the anterior third of the L2-3 disc was in tension (+) while the posterior third was in compression (-) (Fig 2). The magnitude change was essentially ‘vertical’ going from +24% to -21%. L3-4 had a similar conversion; however, the magnitude change occurred from left anterior (+19%) to right posterior (-16%) instead of vertically. For L4-5, the right portion was under tension (+9%) which gradually changed to compression at the left portion (-14%).

In addition to tensile deformation, we also determined the shear deformation with reference to the two adjacent endplates. With respect to the bottom endplate, L2-3 experienced shear from anterior to posterior with a mean magnitude of 5%-25%. L3-4 experienced minimal shear (68%) in the diagonal direction, while L4-5 experienced shear from posterior to anterior of 4%-27%.

![Fig 2](image)

Discussion: Disc deformation during weightbearing differed based on the segmental level. The tension and compression portion altered within the vertebral levels. The magnitude of the deformation decreased from the cephalad L2-3 level to the caudad L4-5 level. This may be related to physiologic lordosis and inherent weightbearing patterns of our subjects (for instance; every subject in our study was right-handed). The shear deformation was limited to within 30% (i.e. about 2mm) for each level, which can be attributed to constraint from the strong ligamentous and muscular attachments of the lumbar spine together with the disc material. We also found that L2-3 and L4-5 experienced shear from opposing directions and L3-4 had a small deformation, which can also be attributed to lordosis. Overall the spine maintains stability by balancing shear in different directions and the anatomic inflection point is roughly located at the L3-4 disc (Fig 1).

The IVD plays a critical role in distributing loads equally across the intervertebral body. In the future, data from this study can be used to determine in-vivo 3D stress, strain, and bulging of the IVD using finite element analysis. This data may have implications regarding the patterns of disc disease, such as degeneration and herniation. It is also helpful for improvements in total disc replacements designed for the treatment of various degenerative disc diseases.

Reference

Gerasimos Petratos  
Methodology for EHR-supported Protocol Design and Patient Recruitment  
New methodology exists for leveraging Electronic Health Records (EHRs) to design more efficient and feasible protocols and to enhance patient recruitment. Clinical data-mining helps to better understand disease progression and characteristics of target patient populations and enhances the feasibility and recruitment of research protocols. Enhanced feasibility and recruitment enables more of the right investigators and patients to participate, allowing a study to reach its conclusions with greater speed and certainty of successful outcomes. The current analysis reveals the key criteria that have the most significant impact on feasibility, allowing for scientifically congruent protocol changes, and also describes methods of using EHR systems enhance recruitment. After the study start-up phase and during study conduct, investigators can leverage their EHR to identify and proactively recruit eligible patients for the study. This presentation will focus on the methodology used to leverage EHRs in support of these drug development activities and will present real cases where this methodology is being applied.

Nicholas A. Romas  
St. Luke’s – Roosevelt Hospital, New York, USA  
An automated circulating tumour cell based assay for prostate cancer maintains the integrity of the tumor cells detected  
It is now clear that cells are shed from tumors well before metastasis and therefore the detection of circulating tumour cells CTCs could provide novel approach to screening, detection of recurrence and evaluation treatment response. Our objective was to develop an approach to the identification and characterization of CTCs, that maintains the integrity of the tumor cells detected. The approach is based on a combination antibody detection, FISH and automated fluorescence microscopy.  
Results: CTCs were detected in 11/12 prostate cancer patients, with 1-6 CTCs (mean 2.2) detected per ml blood. No positive cells were detected in 11 healthy control samples. Follow-up studies are analysing blood samples from two group of patients; a group with metastatic disease, to investigate the clinical value of CTCs in prognosis and a group referred for prostate biopsy, to investigate the potential of the approach for early stage disease detection. Conclusion: We have developed a simple and rapid procedure for isolation and identification of CTCs which has the potential to provide valuable information for screening, early detection of recurrence and evaluation of response.

Harilaos T. Sakellarides MD  
Boston University School of Medicine, Boston, Massachusetts, USA  
Treatment of the Rheumatoid Hand  
Purpose: Early preventive surgery may avoid serious deformities in the hand.  
Methods: The three different types of deformities of the rheumatoid hand are the early ulnar drift, the moderate and the severe. For the early ulnar drift, when the joint is well preserved, a dorsal synovectomy is performed with plication of radial collateral ligament. The extensor indicis proprius is transferred to radial side of extensor hood and the extensor digiti quinti minimi is transferred to radial aspect of extensor hood. For the moderate and severe ulnar drift, when there is subluxation or dislocation of the MP joints and there is alteration of the articular cartilage, a synovectomy is again done through a dorsal approach. A dorsal synovectomy is performed of all metacarpal phalangeal joints, resection of the metacarpal heads follows, the ulnar intrinsics are resected and the radial collateral ligament is preserved.
Silicone prostheses are then inserted through drill holes on each metacarpal head. These prostheses are inserted into the base of the proximal phalanges. The radial collateral ligament is repaired and transferred proximally to the distal part of the metacarpal. Again for this procedure, the extensor indicis proprius and centralized over the dorsum of the MP joint by plicating the extensor hood on the radial side.

Results: Excellent 56%; Good 25%; Fair 19%.

Conclusions: Serious deformities can be prevented by early surgery.

Harilaos T. Sakellarides MD
Boston University School of Medicine, Boston, Massachusetts, USA

Treatment of the Cerebral Palsy Hand

Purpose: To demonstrate the correction of severe deformities by early treatment of the flexor slide operation.

Methods: A long zig-zag type of incision is made over the medial border of the lower end of the arm, elbow, and medial aspect of the forearm down to the wrist. The origin of all flexors of the wrist, fingers and flexor pollicis longus are released from the medial epicondyle, both bones of the forearm and interosseous membrane. The ulnar nerve is now found in the ulnar groove, freed from surrounding soft tissues and investing fascia. The nerve is mobilized well proximally in the arm, the medial intermuscular septum is excised, and the nerve is mobilized from its branches and brought anteriorly to the elbow. Postoperative care is of paramount importance and consists of cast immobilization for ten days, then dynamic splinting follows. Postoperative evaluation was performed by occupational therapy and the author.

Results: Excellent 35%; Good 45%; Fair 20%.

Conclusions: Early surgery can improve this serious condition.

Nikos Sikloglou MD
CEO Medical Mentoring Academy

Preparation of the Next Generation Young Medical Leaders

Returning to the Future through the Hippocratic vision

Introducing a new method of teaching clinical medicine to all novice, (strictly from day One), based on a one-to-one direct diagnostic approach, aiming to formulate a correct and timely clinical diagnosis first and following this One Way roadmap, try to confirm it and by doing so transform it into a Final Diagnosis.

A Computer expert system will provide the novice and the involve medical mentors with the related essential and complementary exams and all the right answers, including the Roadmap for each case.

By doing so we offer the diagnostic keys to all novice, with the clear intention to teach them the correct use of the D-keys™. This diagnostic approach will enrich—will not change at all—any Curricula of 4 or 6 academic years of medical studies "crescendo" from the 1st to the last year. The end result of such preparation will increase the % of young medical doctors able to make a correct and timely diagnosis upon their graduation and hopefully they will become “Doctors-decorators of Life”.

Another “minor” issue will take place naturally and NOT due to fear of punishment of any kind, including the one related to the Insurance Companies. The eradication of the 100% of the waste of money.

We strongly believe that the way we will teach clinical medicine to the novice, humanizing rather than delegating the sophisticated exams to substitute, minimize or underestimate the Golden “interrelationship Physician-Patient” will give birth to the Next Generation Young Medical Leaders.
Eva Sotiriou

The term “mitochondrial diseases” refers to a group of disorders, related to respiratory chain dysfunction. They are metabolic disorders affecting every cell in the body, but are most frequently expressed, clinically and pathologically, in three organ systems: striated muscle, brain and heart, in any combination.

Considering that mitochondrial dysfunction may originate from mutations in more than 1000 genes, from the deleterious effects of many toxic compounds, and even occur spontaneously during ageing, it is hardly surprising that human mitochondrial diseases are much more frequent than previously thought. They may be mild or severe, static or progressive, early- or late-onset, tissue specific or multisystemic.

Chronic progressive external ophthalmoplegia (CPEO) is one of the most frequent mitochondrial disease phenotypes, which mainly affects extraocular muscles. The cause of the disease in the majority of CPEO patients is large-scale rearrangements of mtDNA. However, mtDNA point mutations have also been described as the genetic cause of the disease.

Here we describe a 61-year-old man with Chronic Progressive External Ophthalmoplegia (CPEO) and mitochondrial myopathy, with RRF and COX-negative fibers, and no large-scale mtDNA rearrangements. We performed histochemical, biochemical and molecular genetic analysis in muscle, blood and urine samples of the patient. We identified a heteroplasmic G3244A mutation in the mtDNA tRNA Leu (UUR) gene. The mutation load in muscle was 84% and COX-negative fibers harbored greater levels of mutant genomes than COX-positive fibers. The G3244A mutation affects a highly conserved nucleotide in the dihydroouridine loop and was not found in 100 control, thus satisfying accepted criteria for pathogenicity. To our knowledge, this is the first report associating the G3244A mutation with the clinical phenotype of sporadic CPEO.

In conclusion, we here report a new pathogenic mtDNA mutation in a sporadic case of CPEO. The G3244A mutation adds to the growing list of pathogenic mutations within the tRNA Leu (UUR) gene. We also underscore the importance of verifying the pathogenic nature of novel mtDNA mutations. Clinical misattribution of pathogenicity is an important issue due to the consequences for genetic counseling that is provided to individuals and families with mitochondrial disease.

Ioannis Stathopoulos

PCI Complication Rate Decline: analysis of 23,399 PCl s

Objectives: To assess current rates of complications from PCI, as well as changes, if any, from 1999 to 2006.

Background: Technical improvements permit the performance of PCIs reliably and safely. Yet, adverse events during such procedures have not been eliminated.

Methods: Prospectively collected Lenox Hill Hospital data were abstracted from the New York State PCI Report forms and review of the QI office database. The reported complications from 23,399 consecutive PCIs performed during an eight year period (1/1/1999-12/31/2006) were recorded.

Results: Complications occurred in 3.36% of PCIs. The following complication rates were found: one month death rate 0.6%, death in the catheterization suite 0.047%, stent thrombosis (one month) 0.53%, presumed stent thrombosis (one month) 0.82%, MI (either Q or non-Q wave) 0.74%, emergent cardiac surgery 0.15%, stroke 0.29%, cardiac perforation 0.29%, retroperitoneal bleeding 0.18%, acute renal failure 0.28%, need for hemodialysis 0.17%, CEP * 1.8% and CEPnoST ** 1.58%. When the complication rates between the earlier period (1999-2002) versus the most recent period (2003-2006) were compared, statistical difference was found for the total number of complications, CEP, CEPnoST, stroke, MI, and vascular complications.
Conclusions: Current rates of PCI complications remain low. Overall PCI complication rate declined over the last four years of the study.

* CEP: One month composite endpoint: death (myocardial infarction, stent thrombosis, stroke, or emergent cardiac surgery within one month of the PCI)

** CEPnoST: One month composite endpoint excluding stent thrombosis

A. M. Stergiou, S. J. Schuster, S. S. Neelapu, L. W. Kwak, for the BiovaxID Phase III Study Investigators; Abramson Cancer Center of the University of Pennsylvania, Philadelphia, PA; M. D. Anderson Cancer Center, Houston, TX; Biovest International, New York, NY

ASCO Plenary Session 2009: Idiotype Vaccine Therapy (BiovaxID) in Follicular Lymphoma in First Complete Remission: Phase III Clinical Trial Results

Background: In previous trials, tumor-specific purified idiotype (Id) protein conjugated to keyhole limpet hemocyanin (KLH) administered with granulocyte-monocyte colony-stimulating factor (GM-CSF) induced follicular lymphoma (FL)-specific immune responses and molecular remissions (Nat Med. 1999;5:1171-7).

Methods: We conducted a prospective randomized double-blind placebo-controlled multicenter phase III study of patient-specific autologous tumor-derived Id vaccine in advanced stage previously untreated FL patients (pts) with a lymph node adequate for vaccine production (≥ 2cm). Pts achieving complete response (CR) or complete response unconfirmed (CRu) after chemotherapy (PACE: prednisone, doxorubicin, cyclophosphamide, etoposide) were stratified by International Prognostic Index risk group and randomized 2:1 to receive either vaccination with Id-KLH/GM-CSF or control (KLH/GM-CSF). The primary endpoint was disease free survival.

Results: 234 pts were enrolled; 177 (76%) achieved CR/CRu and were randomized. Of 177 randomized pts, 117 maintained CR/CRu ≥ 6 mo per protocol requirement and then received at least one dose of vaccine, 55 relapsed before vaccination, 4 were vaccine manufacturing failures, and 1 violated protocol. Pts who received ≥ one vaccine dose constituted the modified intent-to-treat population for determination of efficacy. 76 pts received Id-KLH/GM-CSF and 41 pts received the control (KLH/GM-CSF). No serious adverse events were attributed to Id vaccination. At a median follow-up of 56.6 mo (range 12.6 - 89.3 mo), median time to relapse after randomization for the Id-KLH/GM-CSF arm was 44.2 mo, versus 30.6 mo for the control arm (p = 0.045; HR = 1.6).

Conclusions: Id vaccination after a chemotherapy-induced remission of ≥ 6 mo prolongs remission duration in pts with FL. Compared to other phase III Id vaccine trials, the positive outcome of this study may reflect application of Id vaccine in pts in CR/CRu or use of hybridomas to produce Id. Genomic and immune response analyses are planned on residual autologous tumor and blood samples. Additional studies of this patient-specific vaccine in FL pts pretreated with anti-CD20 antibody-containing chemotherapy are indicated.

Leila C. Thanasoulis, MD
Thanasoulis LC, Vicini F, Beitsch PD, Lyden M. Sound Shore Medical Center of Westchester, Solomon Katz Breast Center, New Rochelle, NY; William Beaumont Hosp., Royal Oak, Mi; Dallas Breast CTR, Dallas, TX; BioStat International Inc, Tampa, FL.

Three year analysis of patient demographics, treatment efficacy, cosmesis, and toxicity by the American Society of Breast Surgeons MammoSite Registry in patients (age <50 or 50) treated with accelerated partial breast irradiation (APBI)
**Hypothesis:** We present 3 year data on patient demographics, treatment efficacy, cosmesis, and early toxicity for patients enrolled on the American Society of Breast Surgeons MammoSite (Hologic Bedford, MA) Registry based upon patient age (<50 versus 50).

**Methods:** From 5/02 to 7/04, 1449 breasts (1440 patients) with Stage 0-II breast cancer undergoing breast-conserving therapy were treated with the MammoSite device to deliver APBI (34 Gy in 3.4 Gy fractions). Of these 1449 breasts, 1255 (86.6%) breasts had invasive breast cancer (IBC; median size 10mm) and 194 (13.3%) breasts had ductal carcinoma in situ (DCIS; median size 8mm). Of the 1255 IBC breasts/1249 patients, 109 (8.68%) breasts/patients were <50 years of age (YOA) and 1140/1146 (91.3%) patients/breasts were 50. Of the 194 DCIS breasts/patients, 21 (10.8%) patients were <50 YOA and 173 (89.2%) patients were 50. Prognostic factors, technique, cosmesis, recurrence rates, and toxicity were assessed for all patients. Median follow-up was 38 months.

**Results:** Of the IBC cases, 3 (2.8%) breasts (age<50) and 20 (1.7%) breasts (age 50) developed an ipsilateral breast tumor recurrence (IBTR) for a 3 year actuarial rate (YAR) of 2.27% and 1.76%, respectively (p=0.4587). Of the DCIS patients, 1 (4.8%) breast (age<50) and 1 (0.6%) breast (age 50) developed an IBTR for a 3 YAR of 6.25% and 1.4%, respectively (p=0.2575). Of the IBC cases, patients <50 YOA compared to age 50 more frequently had positive nodes (6.4% vs 2.7%, P = .04), higher grade (II) (72.5% vs 58.9%, P=.0056), and were treated with chemotherapy (31.2% vs 11.5%, P<.0001). No significant difference was found in margin status, tumor location and size, extensive intraductal component, and use of tamoxifen based on age. Of the DCIS cases, patients <50 YOA compared to patients 50 more frequently had an open cavity MammoSite placement (81% vs 52%, P = .0184). No significance was found in margin and node status, tumor location or size, histology, and use of tamoxifen due to age. Patients <50 compared to 50 with IBC or DCIS had excellent/good cosmetic 3 year outcome (YO) (90.3%) and (93.3%), respectively (p=0.2902). Patients <50 compared to 50 with IBC or DCIS more frequently experienced a fair/poor cosmetic 2 YO (13.5% vs 5.6%, P=0.0197) and fat necrosis (4.6% vs 1.8%, P=.0456). This fair/poor cosmetic 2 YO finding for patients <50 vs. > 50 was not significant at 3 YO (9.7% vs 6.4%, p=0.2902). No difference due to age was found for seroma formation, breast infection, telengectasia, retraction, skin spacing, placement method, bra size and balloon volume.

**Discussion:** Treatment efficacy, cosmesis, early toxicity and IBTR 3 years after treatment with APBI using the MammoSite device were similar for IBC and DCIS patients for age<50 or 50 years at diagnosis.

**G. Theodore, MD**  
Massachusetts General Hospital, Boston, MA USA

**Microfracture for Osteochondral Lesions of the Ankle: Outcome Analysis and Outcome Predictors of 105 Cases**

**Purpose:** The purpose of this study was to identify outcomes and outcome predictors of arthroscopic debridement with osteochondral bone stimulation (microfracture) for osteochondral lesions of the ankle. Methods: One hundred five consecutive patients with osteochondral lesions of the ankle who underwent ankle arthroscopy with microfracture were prospectively followed up for a mean of 31.6 ± 12.1 months. Study patients were evaluated at 6 weeks, 3 months, 6 months, 12 months, and annually after surgery. Assessments via a visual analog scale for pain during daily activities and sport activity, the Roles and Maudsley score, and the American Orthopaedic Foot & Ankle Society ankle and hindfoot scoring system were obtained at each visit. Outcome predictors were analyzed by logistic regression model.
Results: There were no failures of treatment with lesions smaller than 15 mm. In contrast, only 1 patient met the criteria for success in the group of lesions greater than 15 mm. Statistical analysis revealed that increasing age, higher body mass index, history of trauma, and presence of osteophytes negatively affected outcome. The presence of instability and the presence of anterolateral soft-tissue scar were correlated with a successful outcome. Conclusions: This study found a strong correlation between lesion size and success across its entire population. For lesions smaller than 15 mm, regardless of location, excellent results were obtained. In addition, increasing age, higher body mass index, history of trauma, and presence of osteophytes negatively affect outcome. The presence of instability and anterolateral soft-tissue scar correlated with a successful outcome. Level of Evidence: Level IV, prognostic case series, prognostic study.

Nicholas Tourides
Educational Advisor/American Program Coordinator
Fulbright Foundation - Greece

Funding sources available for studies and research in the United States in the fields of Medicine and Biosciences. The presentation will refer to opportunities available both at the graduate and postdoctoral levels.

FULBRIGHT SCHOLARSHIPS
1948-2008: 60 Years of Educational and Cultural Exchanges between Greece and the United States.

Since 1948, the Fulbright Foundation has offered free advising services for studies in the U.S. to thousands of individuals and has awarded Fulbright grants to more than 4,500 Greeks and Americans. Fulbright grants are in the form of financial stipends that allow students, scholars, artists, and teachers to study, lecture, or conduct research. Grantees are selected on the basis of academic and professional excellence and career and leadership potential. Fulbright grants are awarded in the arts and humanities, business and finance, science, technology, and the environment, education, media, and government.

The Fulbright Foundation a non-profit, non-political, autonomous, bi-national institution, has offices in Athens and Thessaloniki.

For more information, news, application deadlines, new programs and special grants, please visit www.fulbright.gr

George Varsos, MD, Spiro Kartsonis, MS, Tracy Ng, MD

Multimodality Treatment for Limited Volume Nasopharyngeal Cancer

Purpose: To determine whether patient outcomes would be superior using Intensity Modulated External Beam Radiation (IMRT) with High Dose Rate intranasal brachytherapy (HDR) in patients with carcinoma of the nasopharynx.

Materials and Methods: Patients with non-metastatic squamous cell carcinoma of the nasopharynx were treated using either conventional external beam radiation (EBRT) or IMRT, followed by a HDR brachytherapy boost delivered via customized catheters in a noninvasive, accurate, and reproducible method under direct fiber-optic visualization. Local control (LC), disease-free survival (DFS), and overall survival (OS) were analyzed. We also measured the change in maximum oral aperture as an indication of temporomandibular joint dysfunction.

Results: Data on the initial 38 patients has previously been reported; LC 96%, DFS 81.4% and OS 92.7%. The external beam radiation for this group of patients was conventional. Since then we have treated an additional 42 patients using IMRT for the external beam phase. The initial

89
results show no change in local control or survival with a decrease in long term side-effects. **Conclusion:** IMRT can successfully be used in treatment protocols for nasopharyngeal cancer. The IMRT allows for a decrease in the dose to adjacent normal structure, such as salivary glands, which thereby appears to decrease the side-effects of xerostomia and temporomandibular joint dysfunction long term.

**Vasilis Vasiliou, Ph.D.**
Dept. of Pharmaceutical Sciences, University of Colorado, Denver USA

**The role of corneal crystallins Aldh3a1 and Aldh1a1 in keratocyte and epithelial cell differentiation**

1. Cellular responses to endogenous and exogenous oxidative stress. Our research is focused on cellular mechanisms against oxidative stress caused by physical agents (e.g., UV radiation), and the metabolism of both endogenous and foreign chemicals. The roles of several aldehyde dehydrogenases (ALDH3A1, ALDH1A1, ALDH7A1 and ALDH3B1) expressed in tissue-specific manner are currently studied using genetically engineered cell lines and transgenic knockout mouse lines.

2. Genetic factors involved in the alcohol drinking preference and toxicity. Individual differences in alcohol preference are clearly genetically determined, which may translate into a genetic predisposition for alcohol abuse and alcoholism. Specific genes responsible for the increased or decreased susceptibility to alcohol abuse remain largely unknown. Our laboratory studies the role of two aldehyde dehydrogenase genes, ALDH1A1 and ALDH2, two Cytochrome P450 genes (CYP2E1 and CYP1A2), and Catalase as genetic factors associated with alcohol drinking and toxicity. Experimental approaches include transcriptional regulation and generation of transgenic mouse lines having homozygous disruptions of the above genes.


**Vassilopoulos S, Esk C, Hoshino S, Funke BH, Chen CY, Plocik AM, Wright WE, Kucherlapati R, Brodsky FM.**
Department of Bioengineering and Therapeutic Sciences, University of California, School of Pharmacy, San Francisco (UCSF), San Francisco, CA 94143, USA.

**A role for the CHC22 clathrin heavy-chain isoform in human glucose metabolism**

Intracellular trafficking of the glucose transporter GLUT4 from storage compartments to the plasma membrane is triggered in muscle and fat during the body’s response to insulin. Clathrin is involved in intracellular trafficking, and in humans, the clathrin heavy-chain isoform CHC22 is highly expressed in skeletal muscle. We found a role for CHC22 in the formation of insulin-responsive GLUT4 compartments in human muscle and adipocytes. CHC22 also associated with expanded GLUT4 compartments in muscle from type 2 diabetic patients. Tissue-specific introduction of CHC22 in mice, which have only a pseudogene for this protein, caused aberrant localization of GLUT4 transport pathway components in their muscle, as well as features of diabetes. Thus, CHC22-dependent membrane trafficking constitutes a species-restricted pathway in human muscle and fat with potential implications for type 2 diabetes.