

Baylor Medical College • Alkek Bldg, Room N-315 One Baylor Plaza • Houston TX 77030



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COM.IT.ES Comitato degli Italiani all'Estero Committee for Italians Abroad



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under the auspices of the Consulate General of Italy in Houston

Presents the Conference of Italian Researchers: The Contribution of the Italian Researchers in the World The Past -The Present -The Future

Chairman - Vincenzo Arcobelli, President Comites Moderator - Andrea Duchini, M.D., Gastroenterology, BCM

Speakers

Mauro Ferrari, Ph.D - Researcher (Medicine) Marco Marcelli, M.D. - Researcher (Medicine) Paolo Nespoli - Astronaut (Aerospace) Nicola Perone, M.D. - (Medicine) Giulio Taglialatela, Ph.D. - Researcher (Medicine) Matteo Vatta, Ph.D. - Researcher (Medicine)

Sunday, October 8th, 2006 - 4:30 p.m.

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For information you can call Ann Bernard at 713-798-0950 or email to aduchini@bcm.tmc.edu Additional speakers will be welcome if time permits.

Admission is Free

The Contribution of the Italian Researcher in the World The Past-The Present -The Future

4:45-5:00 p.m.

Opening Remarks and Introduction Moderator Andrea Duchini, M.D., Division of Gastroenterology, BCM Vincenzo Arcobelli - President (Comites) Committee for Italians Abroad Cristiano Maggipinto - Consul General of Italy in Houston

5:00-5:15 p.m.

Mauro Ferrari, Professor, Brown Institute of Molecular Medicine Chairman, Department of Biomedical Engineering , The University of Texas Health Science Center, Houston, TX.

Nanomedicine

Audience Questions

5:20-5:35 p.m.

Marco Marcelli M.D., Associate Professor, Department of Medicine, Baylor College of Medicine Chief of Endocrinology Michael E. DeBakey VA Medical Center Houston TX 77030

A New Approach to Study and Treat the Spectrum of Diseases Associated with Abnormal Activation of the Androgen Receptor

Audience Questions

5:40-5:55 p.m.

Paolo Nespoli, ESA Astronaut NASA/JSC-CB 2101 NASA Parkway Houston, TX 77058 **The Italian Contribution to the International Space Station** Audience questions

6:00-6:15 p.m.

Nicola Perone, M.D., Ċlinical Professor Dept. Of Obstetrics, Gynecology & Reproductive Sciences The University Of Texas Medical School At Houston Bringing Operative Vaginal Delivery Into The New Millennium: The Electronically-Controlled Forceps Delivery System Audience Questions

6:20-6:35 p.m.

Giulio Taglialatela, Ph.D., Associate Professor Department of Neuroscience & Cell Biology, The University of Texas Medical Branch, Galveston, TX 77555 **An Emerging New Therapy For Alzheimer's Disease** Audience Questions

6:40-6:55 p.m.

Matteo Vatta, Assistant Professor Associate Director-Pediatric Cardiac Genetic Research Baylor College of Medicine, Houston, TX, Texas Children's Hospital **Cytoskeletal Basis of Ion Channel Function in Cardiac Muscle** Audience Questions

7:00-7:30 p.m. Refreshments

Nanomedicine

What innovations, if any, will nanotechnology generate in the fight against disease? Answers in oncology, cardiovascular disease and infectious pathologies will be explored, with special emphasis on early detection, molecular imaging, and directed, personalized therapeutics.

A New Approach to Study and Treat the Spectrum of Diseases Associated with Abnormal Activation of the Androgen Receptor

Three main diseases are associated with androgen receptor (AR) mutations; Androgen Independent Prostate Cancer (CaP), Kennedy's disease, and the Syndromes of Androgen Insensitivity (AIS). Little can be done to treat successfully these diseases. We have created a new single cell-based model to visualize on the microscope the various phases of AR action in the cell. This new model is currently being developed to generate information on how AR activity changes from physiologic to pathologic conditions, and to screen for new drugs capable to affect its action in an agonistic or antagonist way.

The Italian Contribution to the International Space Station

The United States, Russia, the European Space Agency (representing 10 European countries), Japan and Canada have started in the late eighties an ambitious project to put in space an International Space Station (ISS): a permanently manned pressurized structure located in low Earth orbit, used as a technological platform, a scientific research laboratory and as a springboard for the exploration of our solar system.

Italy has contributed to this project both with direct cooperation with NASA and through the European Space Agency. These efforts have qualified the Italian industry has a world leader in the design and production of space qualified pressurized modules. Three of these modules, called Multi-purposes Logistic Modules, are routinely used by the Space Shuttle to carry experiments and equipment and to and from the ISS. Three other modules, more complex both from a structural and functionality point of view, will be launched during the next few years. An Italian astronaut will be part of the crew of the Space Shuttle mission STS-120, currently planned for August 2007. One of the main goals of the mission is the delivery in space and installation on the ISS of the pressurized module Node 2, designed and built in Italy. This module has six docking ports and will allow the further expansion of the station.

Bringing Operative Vaginal Delivery Into The New Millennium: The Electronically-Controlled Forceps Delivery System

The obstetrical forceps is unquestionably a very useful instrument in the hands of properly trained obstetricians. As the medical-legal consequences of obstetric action have solidified, it has become clear, however, that for this instrument to keep its place in the armamentarium of the obstetrician, it must be modernized. An electronically-controlled forceps delivery system is described, which allows to measure in real-time the traction applied during a delivery, to alert the doctor when preset safety limits are exceeded, and to generate a graphic representation of the force applied.

An Emerging New Therapy For Alzheimer's Disease

Alzheimer's Disease (AD) is a terminal age-associated dementia involving memory deficits and loss of brain neurons caused by the presence of the toxic amyloid beta (Aâ) protein. We have discovered that in transgenic mice that accumulate human Aâ and show AD symptoms Calcineurin, a protein important for neuronal viability and memory, is abnormal and that treatment of these mice with an inhibitor of calcineurin completely reverses memory deficits. These results indicate Calcineurin inhibitors as possible pharmacological tools in AD.

Cytoskeletal Basis of Ion Channel Function in Cardiac Muscle

The heart contracts upon self-generated electrical stimuli and relies on the structural apparatus of each cardiac cell to endure the repetitive morphological changes during each cycle. Structural defects affect the mechanical stability of each cell and lead to altered electrical activity causing rhythm disorders. Arrhythmias secondary to myocardial structural alterations have been increasingly studied, although the precise molecular mechanisms are still elusive. Our investigation tries to elucidate the molecular and functional relationships between the cellular structural apparatus and ion channels.