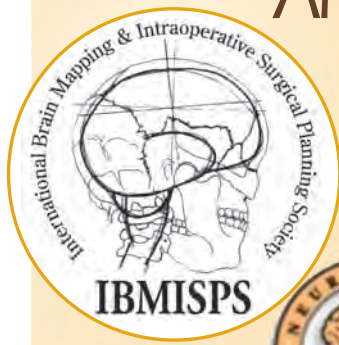




Breaking Boundaries of Science,
Technology, Medicine,
Art and Healthcare Policy



Annual World Congress of IBMISPS on Brain, Spinal Cord Mapping and Image Guided Therapy

8th

International Brain Mapping and Intraoperative Surgical Planning Society - IBMISPS

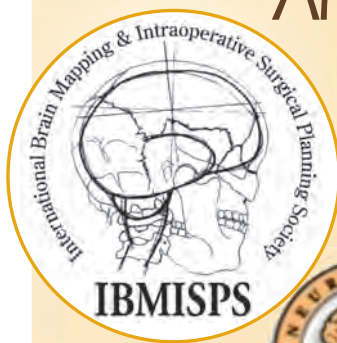
THEME: NANO-BIO-ELECTRONICS

**Mission Bay
Conference Center,
San Francisco, CA,
USA**

June
8th, 9th, 10th,
2011



www.worldbrainmapping.org



Breaking Boundaries of Science,
Technology, Medicine,
Art and Healthcare Policy



Annual World Congress of IBMISPS on Brain, Spinal Cord Mapping and Image Guided Therapy

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International Brain Mapping and Intraoperative Surgical Planning Society - IBMISPS

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INFO

IBMISPS

Global Headquarters
8159 Santa Monica Blvd.,
Suite 200
West Hollywood,
CA 90046

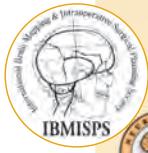
Tel: 310.500.6196

Fax: 323.654.3511

contact@ibmisps.org
ibmisps.org

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IBMISPS MISSION STATEMENT

IBMISPS is a non-profit society organized for the purpose of encouraging basic and clinical scientists who are interested in areas of Brain Mapping and Intra-operative Surgical planning to improve the diagnosis, treatment and rehabilitation of patients afflicted with neurological disorders.

This society promotes the public welfare and improves patient care through the translation of new technologies into life saving diagnostic and therapeutic procedures. The society is committed to excellence in education, and scientific discovery. The society achieves its mission through multi-disciplinary collaborations with government agencies, patient advocacy groups, educational institutes and private sector (industry) as well as philanthropic organization.

EDUCATIONAL OBJECTIVES

Upon completion of the scientific meeting, participants should be able to:

- Identify new findings in brain mapping (BM) & intraoperative surgical planning (ISP) most relevant to their own sub field (i.e. molecular imaging and or biophotonics);
- Describe the effect of the newly developed methods in medical imaging, medical devices, nanotechnology, stem cell/cellular therapy;
- Discuss and design the possible future research and developments in BM, ISP and Nano-Bio-Electronics and assess the possible impact of such research and development on their own clinical and scientific work in the future;
- Describe and assess the latest cutting-edge technological advancement in BM & ISP such as emerging field of nano-bio-electronics (integration of nanotechnology with stem cell/cellular therapy, medical imaging and medical devices);
- Explain ways to build a bridge amongst multiple disciplines;
- Educate the audience about the advancements in other disciplines and explain how such advancements could help them formulate new diagnostics and treatment modalities;
- Discuss and describe governmental agencies, foundations, and industry roles in research and development of the field.

ANNUAL IBMISPS WORLD CONGRESS

The annual IBMISPS World Congress is a multi-disciplinary forum designed to facilitate cross-disciplinary dissemination of technological and medical advances and scientific discovery.

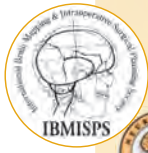
Thus the attendees are mixture of neurosurgeons, radiologists, neurologists, psychiatrists, rehabilitation medicine, cardiologists, pulmonologists, bioethicists, policy makers, government officials, engineers, physicists, graphic designers, allied healthcare professionals, healthcare executives, students, post-docs., residents and fellows.

IBMISPS annual meeting are world class scientific events designed to have a significant impact on cross-disciplinary flow of information and scientific advancements.

CONGRESS CHAIRS

Krystof Bankiewicz,
Mitchel Berger,
Michael Y. Chen,
Massimo Fiandaca,
John Heiss,
Babak Kateb,
Jay J. Pillai,
Michael J. Roy





CHARTER OF IBMISPS

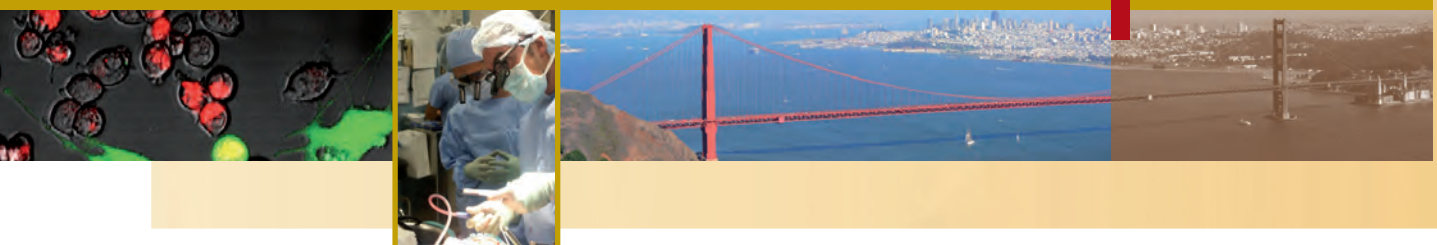
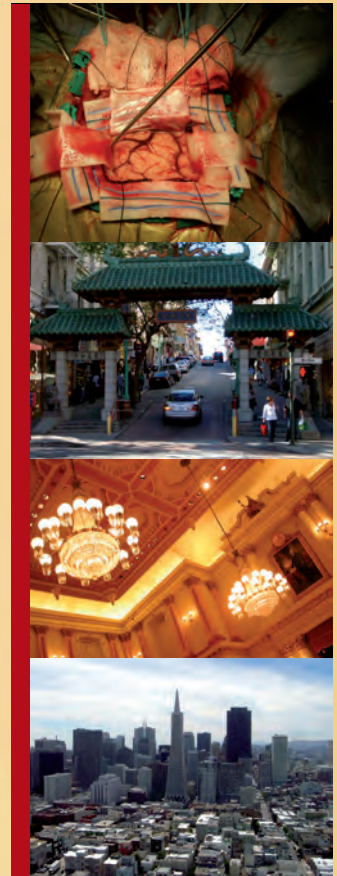
The International Brain Mapping and Intraoperative Surgical Planning society (IBMISPS) was founded in 2004 to break boundaries in healthcare. The society promotes policies that support rapid, safe, and cost-effective translation of new technology into medicine.

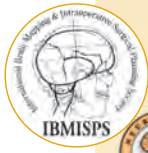
The IBMISPS globally promotes interdisciplinary research to improve the diagnosis, treatment, and rehabilitation of patients with central nervous system diseases regardless of race, creed, color, national origin, gender, or age.

The IBMISPS catalyzes interactions between clinical, biological, physical and engineering sciences. The Society builds transdisciplinary and translational consortia which break down traditional barriers that impede application of new technology to medical problems.

Translational research applies cutting edge basic science and advanced technologies to clinical neurosciences. The Society examines emerging disciplines such as nanotechnology, image-guided therapy, stem cell therapy, multi-modality imaging, biophotonics, and biomaterial and tissue engineering for their application to the diagnosis, treatment, and rehabilitation from neurological diseases. The Society seeks to apply these technologies to clinical problems such as brain tumors, stroke, epilepsy, neurodegenerative diseases (Parkinson, Alzheimer, multiple sclerosis and ALS), traumatic brain and spinal cord injuries, autism, post traumatic stress disorder and other psychiatric illnesses.

The Society achieves its goals through meetings, fellowships, publications, international collaborations, consortiums, and policy forums. The IBMISPS is a nonprofit society which has obtained support from many government agencies (USA, EU and Asia), foundations, and multi-national corporations. The Society maintains its headquarters in West Hollywood, California.





CONTINUING MEDICAL EDUCATION NEED ASSESSMENT

In recent years astonishing advances have contributed to amazing discoveries and breakthroughs in fields of neurology, neuroscience, neurosurgery, radiology, engineering, computer science, nanotechnology, medical imaging, medical devices and cellular/stem cell therapy. These scientific advances also have contributed to the large gap of knowledge amongst the scientists in different disciplines. One of the major challenges of 21st century for the scientific community is how to close such gaps of knowledge amongst multiple disciplines. We have designed the annual meeting of IBMISPS to address such challenge by bringing together world class experts across multiple disciplines.

Moreover, we have identified a need for progressive integration of nanotechnology, cellular therapy with medical devices and imaging. This is why we have chosen "Nano-Bio-Electronics" as the theme of the 8th Annual world Congress of IBMISPS at UCSF. The purpose of the annual meeting is to create an interactive environment, which foster cross pollination of ideas and pave the way for birth of new treatment and diagnostic modalities in the field.

For more information please contact:

**UCLA - Kern Medical Center,
Office of Continuing Medical Education (CME)
1700 Mount Vernon Avenue
Rm #2313, Bakersfield, CA 93306
Phone (661) 326-5657, Fax (661) 326-2107**

CO-CHAIRMEN OF THE CME COMMITTEE

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UCLA - Kern Medical Center

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University School of Medicine

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Department of Neurosurgery,
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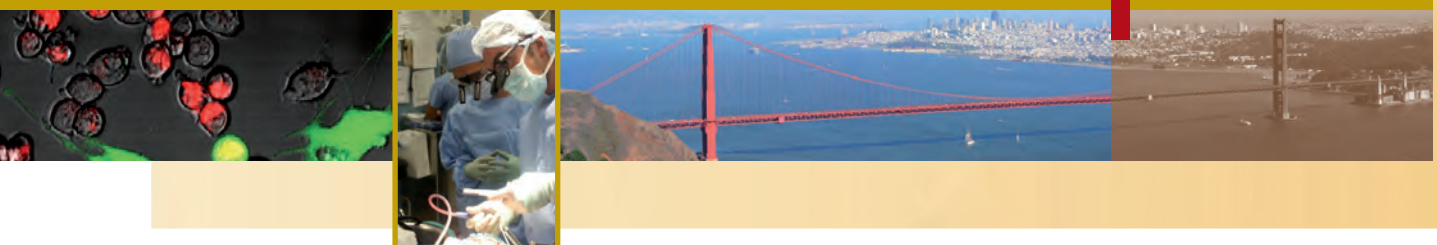
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Brain Injury Center

Michael S. Okun

Department of Neurology, UFL

Michele R. Aizenberg

Department of Neurology,
University of Nebraska





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Director, Brain and
Spine Cancer Center

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982035 Nebraska Medical Center
Omaha, NE, USA



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Tumor Program City of
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& Applied Science, Professor of Surgery,
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Surgical Neurology
Branch, NINDS, NIH,
Bethesda, MD, USA



Kian Kaviani

Department of Electrical
Engineering -
Electrophysics,
Viterbi School
of Engineering, University
of Southern California, Los Angeles, CA, USA



Babak Kateb

Founding Chairman of
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of Brain Mapping

Foundation, Scientific Director of Brain
mapping Foundation and IBMISPS,
Research Scientists, Maxine Dunitz
Neurosurgical Institute,
Department of Neurosurgery,
Cedars Sinai Medical Centre, CA, USA



Farzad Massoudi

Assistant Clinical Professor
of Neurological Surgery,
UCLA, CA, USA



David F. Moore

Vascular Neurologist and
Clinician
Investigator,
Dept. of Neurology,
Tulane University

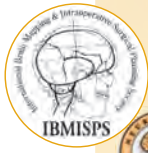
Medical Centre, LA, USA



Shouleh Nikzad

Lead, Advanced Detector
Array and Nanoscience
Group, Principal
Member of Staff, Lead,
Strategic Initiative,

Gigapixel FPAs NASA/JPL,
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Professor of Neurosurgery, USC-Keck
School of Medicine, USA



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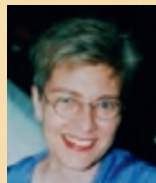
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Colonel, Medical Corps, U.S. Army, Director, Division of Military Internal Medicine Professor of Medicine Uniformed Services, University of the Health Sciences, MD, USA



Jay J. Pillai

Director of Functional MRI Neuroradiology Division The Russell H. Morgan Department of Radiology and Radiological Science Johns Hopkins Univ. School of Medicine Attending Neuroradiologist The Johns Hopkins Hospital, Baltimore, MD, USA



A. Aria Tzika

Director of the NMR Surgical Laboratory, Department of Surgery, Massachusetts General Hospital and Shriners Burns Institute, Harvard Medical School, MA, USA



Bernd Weber

Head of Neuro-cognition & Imaging, Life & Brain Research Center & Department of Epileptology, University Hospital Bonn, University of Bonn, German Institute of Economic Research (DIW), Berlin, Germany



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Vicky Yamamoto

Department of Head and Neck USC-Keck School of Medicine



Sujit S. Prabh

Associate Professor, Department of Neurosurgery, Division of Surgery, The University of Texas MD Anderson Cancer Center, Adjunct Associate Professor, Department of Neurosurgery, Division of Surgery, Baylor College of Medicine, Houston, USA



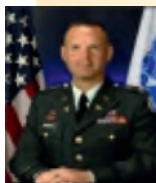
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International Brain Mapping and Intraoperative Surgical Planning Society - IBMISPS



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of Neurosurgery/
National Naval Center



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Naval
Medical Center



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Department of
Neurosurgery, UCLA-
David Geffen School of
Medicine, CA, USA



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California
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Institute



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Instructor, Radiation
Oncology, Dana-Farber
Cancer Institute, Boston,
MA, USA



Stephan Erberich

Center for Health Informa-
tics (CHI), ISI/USC,
Medical Systems
Division, ISI/USC, CA, USA



Wesson J. Ashford

War-Related Illness and
Injury Study Center
(WRIISC) at VAPAHCS



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Hope national Medical
Center, CA, USA



Massimo Fiandaca

Department
of Neurosurgery,
UCSF School of Medicine



Krystof Bankiewicz

Department
of Neurosurgery,
UCSF School
of Medicine



David Cifu

Department of VA,
Virginia Commonwealth
University



Minoru Freund

Advanced
Aerospace Materials
and Devices, NASA Ames



Mitchel Berger

Department
of Neurological
Surgery, UCSF



Alicia T. Crowder

Department
of Neuroscience,
Defense and Veterans
Brain Injury Center



Fred Gage

Laboratory of Genetics,
Salk Institute



Keith L. Black

Department
of Neurosurgery,
Cedars-Sinai Medical
Center



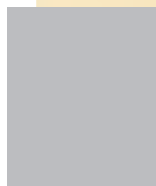
Kenneth Curley

Comabat
Casualty Care,
USAMRMC/RAD2



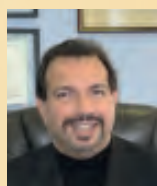
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School of Medicine, CA,
USA



William Bester

Interim
President/USUHS



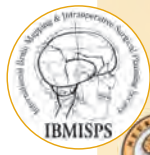
Philip A. De Fina

International
Brain Research
Foundation



Raj Gupta

US Army Medical Research
and Materiel Command/
Blast Injury



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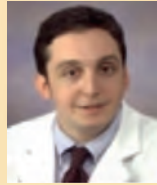
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John D. Heiss

Surgical Neurology
Branch, NINDS, NIH,
Bethesda, MD, USA



Michael S. Okun

Department
of Neurology, FL, USA



Clive Svendsen

Cedars Sinai Stem
Cell Center



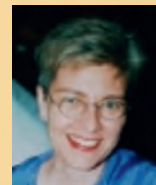
J. Patrick Johnson

Department
of Neurosurgery,
Cedars-Sinai Medical
Center



Martin Pera

USC-Keck
Eli Broad Stem Cell Center



A. Aria Tzika

Department of Surgery,
Massachusetts General Hospital
and Shriners Burns Institute,
Harvard Medical School, MA, USA



Babak Kateb

Maxine Dunitz
Neurosurgical Institute,
Department of Neuro-
surgery,
Cedars Sinai Medical
Centre, CA, USA



Jay J. Pillai

Division
of Neuroradiology
Department of Radiology
Johns Hopkins University
School of Medicine



Bernd Weber

Life & Brain Research Center &
Department of Epileptology,
University Hospital Bonn,
University of Bonn,
German Institute of Economic
Research (DIW), Berlin, Germany



Audrey Kusiak

Neuroscience
and Rehabilitation,
Department of VA



Ramesh Raman

US Food
and Drug
Administration



Paul Weiss

California
NanoSystems Institute,
UCLA



Michael Lim

Department
of Neurosurgery,
Johns Hopkins University
School of Medicine



Michael J. Roy

Division of Military
Internal Medicine
University of the Health
Sciences, MD, USA



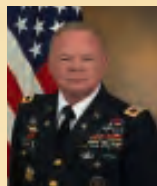
Jonathan Wolpaw

Laboratory
of Neural Injury and Repair,
Wadsworth Center, NY



Geoffrey Ling

Department
of Neurology/DARPA



Robert Saum

Neuro-Behavioral
Science/DCoE



Shouleh Nikzad

Nanotechnology and
Imaging Array,
NASA/JPL



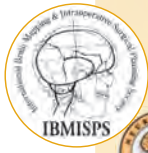
Uttam Sinha

Department
of Head & Neck Surgery,
USC-Keck School
of Medicine



Jeffrey P. Sutton

National Space Biomed-
ical Research Institute;
Center for Space Medi-
cine, Baylor College of
Medicine



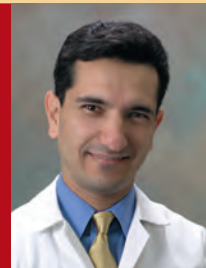
Letter from the Founder

Over the past 7 years, IBMISPS has successfully brought together a diverse scientific, medical, and engineering community to tackle complex neurological disorders such as brain cancer, brain and spinal cord trauma, and Parkinson's disease. These efforts strived to close the gap of knowledge across disciplines. The society has successfully facilitated unprecedented cross-disciplinary interactions amongst scientific fields. This unique approach has spurred interest in the organization and its growth from the USA to include Canada, Japan, India, France, China, Brazil, Spain, Republic of Georgia, Iran, Israel, Russia, South Korea, Taiwan, Hong Kong, Germany, Sweden, Netherland, Lithuania, Italy and the UK.

We have also chosen the "Nano-Bio-Electronic" theme for our annual meeting in order to shed light on importance of integrating nanotechnology with stem cell/cellular therapy and medical imaging/devices. The organization is also advocating for establishment of National Center for Nano-Bio-Electronics (NCNBE) in order to facilitate such integration in a meaningful ways. This is a new frontier in science, which could help us understand the function of brain and spinal cord that could lead into more effective treatment for neurological disorders and combat related injuries.

IBMISPS is a grassroots organization with a deep interest in cultivating future leaders from K-12 to the post-graduate training level. We have encouraged formation of student chapters in universities around the world that will train future generations of scientists, physicians, surgeons, and policy makers to take a multidisciplinary approach to solving difficult issues. The student chapters along with our annual meeting promote the exchange of ideas across the world, bridge cultural boundaries, and contribute to better global and regional healthcare, health policies, and scientific progress. The organization intends to obtain its ACCME accreditation within next 12-18 months, which could enable IBMISPS establish a process of board certification (Image Guided Therapy Board) and fellowships. The fellowship will be focused on integration of nanotechnology with stem cell/cellular therapy and imaging/medical devices.

The Society has established a new publication in collaboration with PloSOne (world's largest open access Publisher) called NeuroMapping & Therapeutics. The collection is now accepting papers online at www.PloSOne.org



Babak Kateb

Founding Chairman of the Board
of Directors IBMISPS

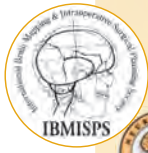
Founding Chairman of the Board
of Brain Mapping Foundation
Scientific Director
of Brain mapping Foundation
and IBMISPS

Research Scientists, Maxine
Dunitz Neurosurgical Institute
Department of Neurosurgery,
Cedars Sinai Medical Centre,
CA, USA

Managing Editor IBMISPS-
NeuroImage Special Issue

Senior Editor IBMISPS-PloSOne
NeuroMapping and Therapeutics





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Besides fostering state-of-the-art science and technology, IBMISPS has established strong collaborative ties with the US Congress and House of Representatives and has been active in educating policymakers about cutting-edge science, technology and medical research. In this regard, we have been proactive in inviting influential public figures and leading policy/news makers to our annual meetings. We also have been active in educating policymakers about the latest science, technology and medicine related to the field of neuroscience.



We are especially fortunate and honoured to have Vice Admiral Robinson, Dr. Kaigham J. Gabriel and Dr. Ramon Lugo in this meeting as an Honorary Keynote Speakers. Their vision and remarkable leadership qualities will further enable IBMISPS leadership to focus its efforts on using state-of-the-art technology of NASA to help wounded soldiers.

This year we are honouring two remarkable individuals with Beacon of Courage and Dedication award: The Honourable Gabriel Giffords will be honoured for her unprecedented fight against traumatic brain injury. Her recovery has been astonishing and significant source of hope for many patients with Neurological disorders. She has taught us (the scientist) more about brain plasticity and rehabilitation than we ever knew. The second award recipient, Dr. Mino Freund, is an accomplished NASA scientist with unbelievable dedication toward translating NASA technologies into medicine. Mino is a visionary scientist with unshakable will to fight his brain cancer. He is a true role model and inspiration to all patients and scientists.

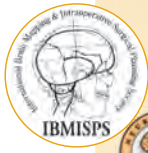
The Pioneer in Healthcare Policy Crystal Award will be presented to the Honorable Congresswoman Giffords for her role in supporting cutting-edge research, science, technology and healthcare reform. This is the first time in the history of IBMISPS that two awards in different categories are presented to one individual. This speaks to the amazing personal and professional achievements of the Honorable Giffords. This year we are honouring Dr. Patrick Soon-Shiong with Pioneer in Medicine Crystal award. Patrick is a transplant surgeon who discovered one of the first FDA approved Nano-drug, Abraxan, for breast cancer. He turned his discovery to a great fortune, which has enabled him to be a remarkable philanthropist. He is a true pioneer and visionary role model.

Drs Henry Marsh and Rocco Armonda are representing the best of the best in neurosurgery because of their humanitarian work. Rocco Armonda is one of the best neurosurgeons of the US military who has saved numerous lives of soldiers with brain and spinal cord injuries. Henry Marsh is a giving and loving neurosurgeon who has spent his time and life in far reaching areas of the world such as Africa to treat difficult cases for free. These two amazing neurosurgeons not only represent the best of humanity but also teach us about giving back to the community without expectations.

I thank the program committee, finance committee, CME committee, publication committee local organizing committee and peer review committee for their hard work. This program could not be possible without generous contributions of our supporters. I hope that you enjoy these remarkable scientific works and can make plans to join us at the 2012 IBMISPS World Congress in Canada!

Respectfully





IBMISPS President's Address

Dear IBMISPS meeting participants,

It is an honor to welcome you to the International Brain Mapping and Intra-operative Planning Society (IBMISPS) annual meeting. We are very fortunate to have the meeting this year in San Francisco, CA and to have the assistance of our local organizing committee from UCSF. Our society is unique in that we have taken an interdisciplinary approach to solving problems that will drive the advances in science and technology, and we believe this approach will also help to shape the future of healthcare policy. With 50 countries, 100 universities, as well as members of government, industry, and the general public represented, we believe we have created a true think-tank atmosphere. The society operates on a simple principle: use our interdisciplinary membership to identify important issues in science and in healthcare and then create a pathway to solve them. It is the only conference of its kind where a neurologist and a neurosurgeon may directly interface with neuroscientists (NASA, DARPA, NIH, etc.), nanotechnologists, radiologists, engineers, physicists, rehabilitation specialists, CEOs, allied healthcare professionals (military and civilian), as well as students of all specialties and of all disciplines. We take pride in pairing our students and trainees with leading scientists as we believe passionately that we are shaping a brighter future.

The IBMISPS has broad interests in science and technology, but we remain active in searching for solutions to the healthcare issues that have emerged as soldiers and civilians have been injured as part of ongoing conflicts all over the globe. We will use our interdisciplinary think-tank to identify their and their family's health related problems, and we will work toward providing research-based pathways that will ultimately lead to meaningful solutions.

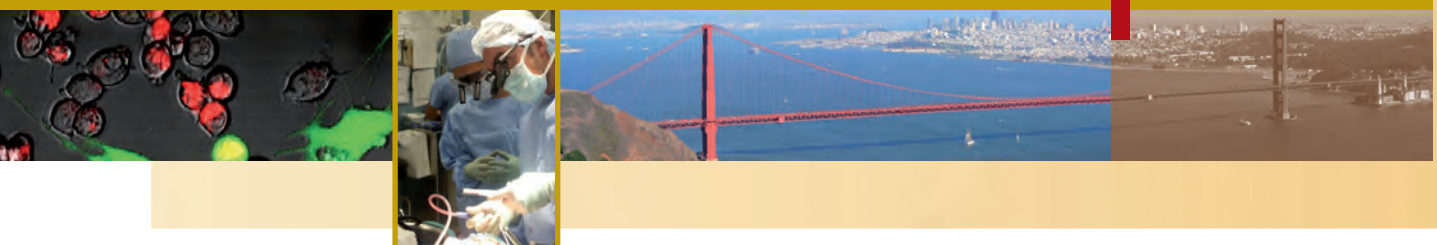
We expect the Congress to be attended by a diverse group of interdisciplinary scientists and clinicians from all over the globe, and the best of their efforts will be represented our journal special issue. Please enjoy the conference and enjoy one of the greatest cities in the United States.

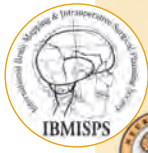
Sincerely yours



Michael S. Okun

President, IBMISPS
National Medical Director,
National Parkinson Foundation
Adelaide Lackner Professor
of Neurology
Center for Movement Disorders
and Neurorestoration
University of Florida,
Gainesville FL USA





IBMISPS President-Elect's Address

I'm honored to be president-elect for the IBMISPS. Our society has in a relatively short time achieved notable successes, one of which is the ability to consistently hold annual meetings in fine venues such as Harvard, Bethesda and UCSF Mission Bay. This year, I am also particularly proud of the high quality of abstracts and talks that will be given by our nationally distinguished speakers and honored guests.

The society has grown and possesses clear potential as a think tank for futuristic medicine. Yet, let us not be blinded by our limited success. Reflection shows substantial problems that need to be addressed. To begin, the name "IBMISPS" has served us well. However, this name is unwieldy, requiring significant concentration to recall the acronym or what those letters stand for. Careful consideration will be used to rebrand the society to a name that rolls more easily off the tongue, and more accurately reflects the full scope of the society's efforts.

The platforms that carry the vision and the substance of the society will also need further refinement. Mankind is on the verge of creating a black hole using the large Hadron collider. Amazing technologies such as this provide unparalleled opportunities for medicine of the future. As a society whose core mission is to meld innovative science and medicine, we need to make certain that the newest technologies are discussed in our forums. To this end, the board of directors will conduct their own research and query all members to identify special topics of interest. A greater emphasis will be placed on presenting the furthest reach of technology.

And finally, my opinion is that the society must encompass more than just the annual meeting. Our new PlosOne Journal, NeuroMapping and Therapeutics, provides a very nice opportunity to exchange information throughout the year. Though exchanging information is useful, IBMISPS is also working on creating mechanisms whereby casual interactions can become more meaningful and substantial.

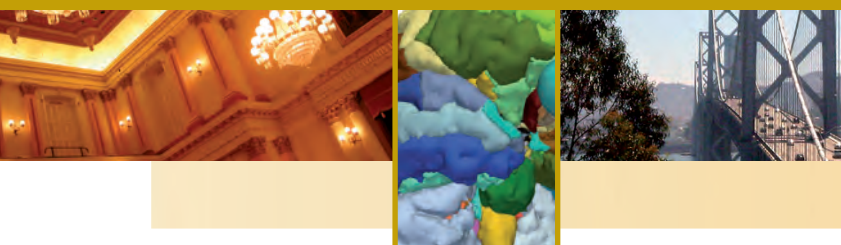
I look forward to serving the society and building upon the strong foundation upon which it stands.

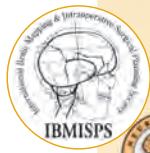
Sincerely



Michael Y. Chen

President Elect of IBMISPS;
Assistant Professor
of Neurosurgery, Section head,
Malignant Brain
Tumor Program City of Hope
National Medical Center, CA, USA





IBMISPS Program

Consortia

Nano-Bio-Electronics Consortium (NBEC): The Purpose of the NBEC is to facilitate integration of nano-technology, Stem cell and cellular therapy with Medical Devices and imaging. This consortium will impact global biomedical science and healthcare delivery through national and international partnerships with governments, universities and leading industry. The following are elements of the Consortium:

1-Scientific Meetings

This includes national meetings, international meetings, and world congress. The world congress is the society's annual meeting that invites prominent scientists and clinicians from all over the globe. Scientific Meetings are broken down into three categories:

SCIENTIFIC EXHIBITS & POSTERS	SPECIAL FOCUS SESSIONS	STUDENT FUNDING OPPORTUNITIES
- Basic and Clinical Research in image guided therapy. - Novel research and development in brain mapping and intra-operative surgical planning. - Clinical trials - Bio-Ethics	- Governmental Regulation - Government Education - Patient Advocacy - Healthcare Policy - Funding Opportunities	- Graduate and Post Graduate Interdisciplinary Fellowships - Student Travel awards - University Student chapters mentorship programs - Scholarships for undergraduate students studying neurological disorders

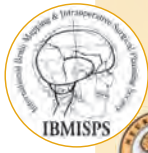
2-World Congresses

The following are lists of previous Annual World Congresses organized in the last seven years:

2010-USUHS, Bethesda, Maryland, USA; 2009-HARVARD Medical School, Boston, MA, USA; 2008-UCLA-California Nano-system Institute, LA, CA, USA; 2007 Washington DC, USA; 2006 Clairmont-Ferrand-France, 2005 Pasadena, CA, USA, 2004-USC Keck School of Medicine, CA, USA.

IBMISPS Annual Meeting Organizers Encourage Cross-Disciplinary Subjects:

- Image guided systems
- Neurovascular coupling and Perfusion imaging
- ISP & Image guided surgery (OR of the future)
- BM and ISP in Stereotactic Radiosurgery (proton Therapy, Novalis, Tomo-therapy, Varian system, Xknife, gamma knife and cyberknife technologies will be compared and contrasted)
- Molecular and cellular imaging including: the use of nano-particles for stem cell and T-cell imaging
- Neuro Anatomy and histopathology in brain mapping
- Nanoscience, genomics, computational informatics genetics in brain mapping
- Rehabilitation Medicine (e.g. TBI, Stroke, Spinal Cord Injury)
- Novel imaging techniques for TBI and PTSD (eg. DTI, PET, SPECT)
- NeuroImaging for Psychiatric Diseases (eg. PTSD, Autism, Schizophrenia)
- Nanoscience, genomics, computational informatics genetics in brain mapping
- Neurophysiology (EEG, MEG, Evoked Potentials, EMG/NCS, ESM)
- Functional brain mapping (fMRI, PET, SPECT, Intrinsic Signal Optical Imaging)
- Brain Mapping and Intra-operative Surgical Planning using Endoscopy
- Biophotonic techniques for Brain Mapping
- Multi-modality imaging techniques
- Ultrasound Imaging
- Magnetic Resonance Spectroscopic Imaging
- High-field and low-field magnetic resonance
- High-field and low-field MRI, MR Spectroscopic Imaging, micro MRI
- Magneto encephalographic
- Transcranial Magnetic Stimulation
- Cerebral White Matter Mapping and Imaging, (eg. Diffusion Tensor Imaging) Neural Prosthesis &
- Robotics (Human Brain machine Interface technology)
- Minimally invasive therapy for traumatic brain injury (TBI)
- Imaging modalities for detecting mild/mod TBI, micro-TBI
- Socioeconomic, Ethical, and Healthcare issues related to the brain mapping and intra-operative surgical planning
- Healthcare Policy, Ethics and Regulatory affairs



3-Student Chapters

The student chapters are organized to promote and encourage multi-disciplinary research across disciplines. Universities with Student Chapters qualify for student travel award starting 2012.

4-Fellowships

IBMISPS fellowships are focused on interdisciplinary training of neurosurgeons, neurologists, radiologists and rehabilitation physicians, neuroscientists and engineers on diseases that has major Social impact such as Traumatic brain and spinal cord injuries, neuro-oncology and neurodegenerative diseases. The fellowships are design to apply state-of-the-art research through the study of biomedical science and cutting edge technologies to clinical problems. These scholarship are awarded to masters students, pre-doctoral, and post-doctoral fellows.

5-Visiting Scholars Program

Visiting scholars program facilitates exchange of scientific investigators and policy experts with other countries and institutions through participating IBMISPS centers. The goal of the visiting scholar program is to develop collaborations between physical and biological sciences and address major policy issues relevant to the society.

6-Outreach Program

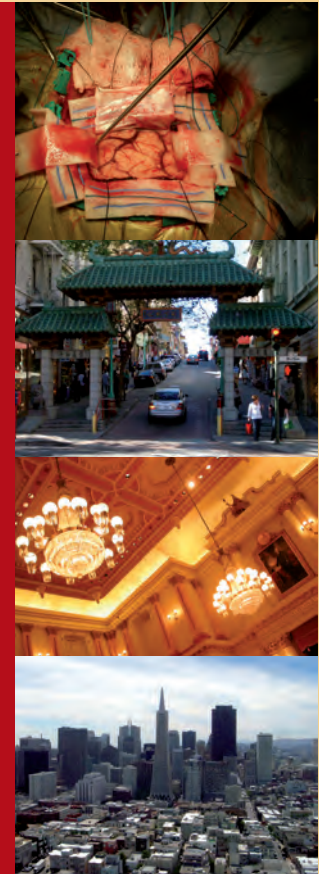
Outreach programs including woman and minority in sciences and community awareness of new technology, science and medical advancements. This includes high school and college educational programs run through student chapters worldwide.

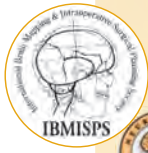
7-Society Publications

The Society has successfully published 3 special issues with NeuroImage. We have reached out to more than 50,000 scientists worldwide through our partnership with Elsevier in the last several years. Recently, IBMISPS partnered with PloSOne publishing giant to launch special Collection/publication called: NeuroMapping and Therapeutics (www.PloSOne.org <<http://www.plosone.org/>>) PloSOne is one of the largest Open access Publishers in the world. We anticipate that we reach out to a larger audience of scientists through our partnership with PloSOne and surpass our outreach in last several years.

8-Industry Partnership

IBMISPS encourages support from private industry and provides industry with a forum to present their latest advances. The society recognizes the role of industry in translating cutting-edge research and technology into the market. IBMISPS is currently partnering with more than 100 multi-national corporations.





9-Government Relationships

The society works actively with the representatives of various governments to leverage its resources and focus attention on healthcare issues through interdisciplinary collaborations. In the past IBMISPS scientific activities have been supported by government institutions such as UCLA-CNSI, TATRC, DVBIC, Canadian Research Council, NINDS, NCI and NIBIB.

10-Healthcare Policy

In 2008 IBMISPS introduced formation of Science, Technology, Medicine and Law-Healthcare Policy (STML-Hub) to the US Congress and house of representative in order to establish a center for introducing technological and scientific advancements to the policy makers. The organization hoped that through this hub we could educate policymakers about the state-of-the-art science. This could help policy makers identify technologies, which could save cost, increase efficiency and better healthcare delivery.

IBMISPS is now working on a proposal to establish National Center for Nano-Bio-Electronics. The center will be focused on integration of nanotechnology, stem cell and cellular therapy and medical imaging/devices for the purpose of rapidly providing solutions for the wounded warriors and civilians with neurological disorders such as PTSD and TBI.

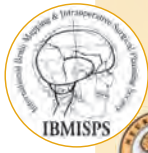
11-Seed Grants

IBMISPS, in partnership with Brain mapping Foundation and other foundations is planning to provide seed grants to encourage cross-disciplinary collaboration. The purpose of these grants is to bridge physical and biological sciences and encourage cross disciplinary collaboration.

12-Global Physician and Scientist (GPS)

GPS is a humanitarian program, which is focused on mobilizing physicians, scientist and surgeons to serve for few weeks in the poor and rural areas of the United States and abroad. This program will collaborate with industry and government officials and will use the national and international IBMISPS centers as bases of operations. The program is designed to not only help alleviate healthcare disparities by bringing world class physicians to the poor areas but also help improve local economy through micro and neuroEconomics.





KEYNOTE SPEAKERS

Vice Admiral Robinson is the 36th surgeon general of the Navy and chief of the Navy's Bureau of Medicine and Surgery.

Robinson, is a native of Louisville, Ky. He entered the naval service in 1977 and holds a Doctor of Medicine degree from the Indiana University School of Medicine, Indianapolis, through the Armed Forces Health Professions Scholarship Program. Following completion of his surgical internship at Southern Illinois University School of Medicine, Springfield, he was commissioned.

Robinson's first assignment was as a general medical officer, Branch Medical Clinic, Fort Allen, Puerto Rico, before reporting to the National Naval Medical Center, Bethesda, Md., in 1978 to complete a residency in general surgery. His subsequent duty assignments included: staff surgeon, U.S. Naval Hospital, Yokosuka, Japan, and ship's surgeon, USS Midway (CV 41).

After completing a fellowship in colon and rectal surgery at Carle Foundation Hospital, University of Illinois School of Medicine Affiliated, Champaign-Urbana (1984-85), Robinson reported to the National Naval Medical Center, Bethesda, as the head of the Colon and Rectal Surgery Division. While there, he was called to temporary duty in 1987 as ship's surgeon in USS John F. Kennedy (CV 67) and in 1988 as ship's surgeon in USS Coral Sea (CV 43).

Robinson reported to Naval Medical Center Portsmouth, Va., in 1990 as the head of the General Surgery Department and director of General Surgery Residency Program. He was appointed acting medical director for the facility in 1994. While at Naval Medical Center Portsmouth, Robinson earned a Master's degree in Business Administration from the University of South Florida. In 1995, Robinson reported to the commander, Naval Surface Force, U.S. Atlantic Fleet, as the force medical officer serving in that capacity for two years. Following that assignment, he reported to Naval Hospital Jacksonville in 1997 as the executive officer. In January 1999, as Fleet Hospital Jacksonville commanding officer, Robinson commanded a detachment of the fleet hospital as a medical contingent to Joint Task Force Haiti (Operation New Horizon/Uphold Democracy).

In August 1999, Robinson reported to the Bureau of Medicine and Surgery (BUMED) as the director of Readiness and was selected as the principal director, Clinical and Program Policy in the Office of the Assistant Secretary of Defense for Health Affairs in September 2000, where he also served as the acting deputy assistant secretary of Defense for Health Affairs, Clinical and Program Policy. Robinson was assigned as commanding officer U.S. Naval Hospital Yokosuka from September 2001 to January 2004, after which he received assignment back to BUMED as deputy chief of BUMED for Medical Support Operations with additional duty as acting chief of the Medical Corps. In July 2004, Robinson reported as commander, National Naval Medical Center, Bethesda, Md. He assumed the duties as commander, Navy Medicine National Capital Area Region in October 2005.

The author of numerous presentations and publications, Robinson holds fellowships in the American College of Surgeons and the American Society of Colon and Rectal Surgery. He is a member of the Le Societe Internationale de Chirurgie, the Society of Black Academic Surgeons, and the National Business School Scholastic Society, Beta Gamma Sigma. He holds certification as a certified physician executive from the American College of Physician Executives.

Robinson's personal decorations include the Distinguished Service Medal (two awards), Legion of Merit (two awards), Defense Meritorious Service Medal (two awards), Meritorious Service Medal (three awards), Navy Commendation Medal, Joint Service Achievement Medal, Navy Achievement Medal and various service and campaign awards.

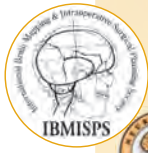


Adam M. Robinson, Jr.

Vice Admiral

Surgeon General of the Navy
and Chief of the Navy's Bureau
of Medicine and Surgery





KEYNOTE SPEAKERS

Ramon (Ray) Lugo III serves as the Director at the National Aeronautics and Space Administration's John H. Glenn Research Center. He is responsible for planning, organizing and directing the activities required in accomplishing the missions assigned to the Center. Glenn is engaged in research, technology and systems development programs in space propulsion, space power, space communications, aeronautical propulsion and microgravity sciences. Prior to this appointment, he served as Glenn's Deputy Director from 2007 to 2010.

Prior to his positions at Glenn, Lugo served as the Deputy Program Manager of the Launch Services Program at NASA's Kennedy Space Center and was principally responsible for managing, directing and evaluating the progress of all ongoing launch operations and activities including Expendable Launch Vehicles engineering and analysis, payload integration, launch site support and launch campaigns.

Lugo began his NASA career at Kennedy in 1975 as a cooperative education student. His first assignment was in the Construction and Modifications Branch as an engineer responsible for construction modifications to Launch Complex 39A in preparation for the first space shuttle launch.

Since becoming a member of the Senior Executive Service in 2001, he served as the executive director of the Cape Canaveral Spaceport Management Office. Other leadership positions include Director and Deputy Director of Expendable Launch Vehicle Services Program, Manager of Facilities and Support Equipment Division in the Space Station Project Office, and Chief of the Business Office of the Joint Performance Management Office.

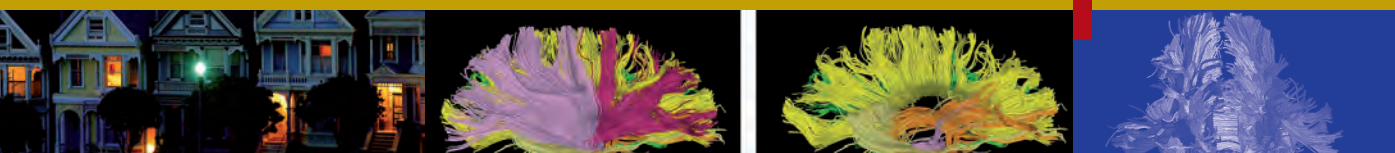
Lugo has received numerous honors, including two NASA Exceptional Achievement Medals for contributions to the Galileo Mission and the Space Station Redesign, and three NASA Outstanding Leadership Medals for his instrumental role in the Expendable Launch Vehicle Program Transition.

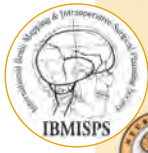
Lugo earned a Bachelor of Science in engineering in 1979 from the University of Central Florida and a Master's Degree in engineering management in 1982 from the Florida Institute of Technology.



Ramon (Ray) Lugo III

National Aeronautics and Space
Administration
John H. Glenn
Research Center
Lewis Field
Cleveland, Ohio 44135





KEYNOTE SPEAKERS

Dr. Rocco Armonda serves as the Director of Cerebrovascular Surgery and Interventional Neuroradiology for the National Capital Neurosurgery Consortium at the National Naval Medical Center and Walter Reed Army Medical Center. He is also an Associate Professor and Division Director for Neurosurgery, Department of Surgery, at the Uniformed Services University of the Health Sciences. His wife Heidi and him enjoy active outdoor sports, camping and competing in triathlons with their children; Michael 3, Emma 7, Madison 10, Gabriella 12 and Rocco's two older girls Adrianna 18 and Michelle 20.

Dr. Armonda earned his undergraduate degree from the United States Military Academy, West Point, N.Y. in 1986, and his medical degree in 1990 from the Uniformed Services University of the Health Sciences, Bethesda, MD. He was inspired to pursue neurosurgery by Dr Malcolm B. Carpenter his professor of neuroanatomy at USUHS in 1986-87. Subsequently, he followed his goal of neurosurgery at Walter Reed Army MEDCEN where he was mentored and strongly influenced by Dr Richard G. Ellenbogen. Through Dr. Ellenbogen's efforts he was granted a fellowship in neurosurgery with Dr. Robert H. Rosenwasser, MD at Thomas Jefferson University. He completed his Neurosurgery Residency in 1997 at Walter Reed Army Medical Center, Washington, DC, and a fellowship from 1997-99 in Cerebrovascular Surgery and Interventional Neuroradiology at Thomas Jefferson University, Philadelphia, PA.

As Commander of the 207th Neurosurgery Team, Dr. Armonda was deployed to Iraq, conducting both military and humanitarian neurosurgical care. During this time he was awarded the Bronze Star for service. He has cared for over 500 combat casualties over the past 10 years, having performed over 1200 procedures for these patients. Additional awards have included the Army Medical Proficiency "A" Designator for excellence in both clinical and academic medicine, as well as the Young Neurosurgeon's Award presented to him by the American Association of Neurological Surgeons in 2005.

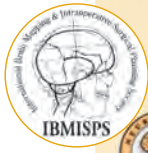
Dr. Armonda's focus continues in the area of cerebrovascular disease and neurotrauma with an emphasis on neurocritical care. In the military he has advanced the use of multi-modal monitoring and treatment techniques to patients with neurotrauma and stroke with both invasive and non-invasive monitoring. This includes the application of hypothermia in severe wartime trauma, non-invasive CBF monitoring, and neuroendovascular treatment of delayed traumatic vasospasm, and neurovascular injuries. His seminal work includes the detection and treatment of traumatic cerebral vasospasm, traumatic pseudoaneurysms, decompressive craniotomy for wartime trauma, cranial-facial post-traumatic reconstruction, multimodal AVM treatments, and the design and deployment of the advanced neurointerventional operating room.

Recently his interest has expanded to include the application of nanotechnology designed neuroendovascular stents for the treatment of traumatic intracranial vascular injuries. Through a military-civilian collaboration with Purdue University Dr. Jean-Paul Allaine and Dr Teodoro Tigno at Walter Reed National Military Medical Center, they have begun work on creating neuroendovascular stents with unique properties that allow for specific endoluminal biological healing at the orifice of an aneurysm.



Rocco Armonda

Neurosurgery Consortium
at National Naval MEDCEN
and Walter Reed Army MEDCEN



KEYNOTE SPEAKERS

Dr. Kaigham (Ken) J. Gabriel most recently was the Founder, Chairman and Chief Technical Officer of Akustica, a semiconductor company commercializing Micro Electro Mechanical Systems (MEMS) sensors for consumer electronics products. Akustica, based in the United States with a global supply chain and customer base, pioneered the use of digital silicon microphones and shipped more than 5 million units to the PC/notebook industry. Since founding the company in late 2001, his responsibilities focused on managing continued technology innovation, product development, manufacturing, and business execution.

In 2003, Dr. Gabriel was named a Technology Pioneer by the World Economic Forum at Davos, one of 40 selected worldwide. He is the co-founding Executive Director of the MEMS Industry Group, the principal trade organization representing the MEMS industry globally. Ken is widely regarded as the architect of the MEMS industry.

From 1992 to 1997, Dr. Gabriel was at the Defense Advanced Research Projects Agency. In 1992, he was recruited to start the Agency's MEMS program and grew the effort to more than \$80 million a year with 70+ projects. He was promoted to Director of the Electronics Technology Office (1996-1997), where he was responsible for nearly \$450 million annually in electronics technology programs including advanced lithography, electronics packaging, MEMS, optoelectronics, millimeter and microwave integrated circuits, and high-definition displays.

Dr. Gabriel counts among his honors the Carlton Tucker Prize for Excellence in Teaching from the Massachusetts Institute of Technology; appointment to the Senior Executive Service; co-chair of the Task Force on Defense Technology Strategy and Management for the Defense Science Board 1999 Summer Study on "21st Century Defense Technology Strategies"; and two technology briefings to the Secretary of Defense.

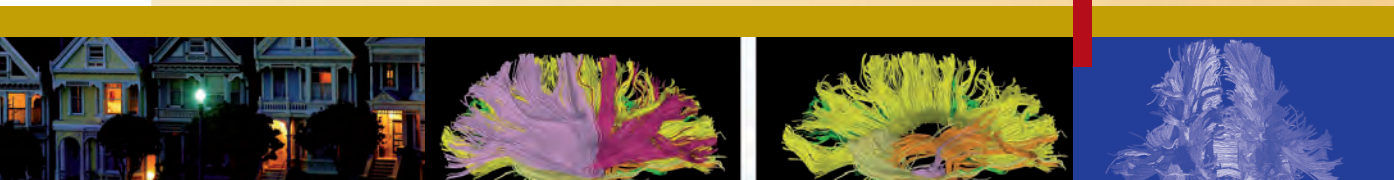
Prior to his Government service, Dr. Gabriel was at AT&T Bell Labs in the Robotic Systems Research Department, where he pioneered the field of MEMS and started the silicon MEMS effort, leading a group of researchers in exploring and developing IC-based MEMS for applications in photonic and network systems. During a sabbatical year from Bell Labs, Dr. Gabriel was a Visiting Associate Professor at the Institute of Industrial Science, University of Tokyo, where he led joint projects at IBM Japan Research, Toyota Central Research Laboratories, and Ricoh Research Park. After leaving Bell Laboratories in 1991, he spent a year as a visiting scientist at the Naval Research Laboratory transferring micromechanics processing technology to the Nanoelectronics Processing Facility.

Dr. Gabriel holds an S.M. and a Ph.D. in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology.



Kaigham J. Gabriel

Deputy Director of DARPA
(Defense Advanced Research
Project Agency)





Annual World Congress of IBMISPS on Brain, Spinal Cord Mapping and Image Guided Therapy

June 8th, 9th, 10th, 2011

International Brain Mapping and Intraoperative Surgical Planning Society - IBMISPS

TIME TABLE

	DAY 1 WEDNESDAY, JUNE 8, 2011		DAY 2 THURSDAY, JUNE 9, 2011		DAY 3 FRIDAY, JUNE 10, 2011	
	Robertson Auditorium	Fisher Banquet Room	Robertson Auditorium	Fisher Banquet Room	Robertson Auditorium	Fisher Banquet Room
7:30 AM				Anatom-E Workshop		
8:00 AM						
8:30 AM			Welcome & Introduction			
9:00 AM	8:45 AM Official Welcome & Introduction by the Chairman		Key Note Lecture		Scientific Session Nano Bio-Electronics / StemCells 1	Scientific Session Multimodality Brainmapping
9:30 AM			Key Note Lecture			
10:00 AM	Key Note Lecture		Coffee Break			
10:30 AM	Coffee Break		Scientific Session Space Medicine 1	Scientific Session Convection Enhanced Delivery of Therapeutic Agents: PloSOne	Coffee Break	
11:00 AM	Scientific Session NAVY Medical Research				Scientific Session Nano Bio-Electronics / StemCells 2	Scientific Session Stereotactic Radiosurgery
11:30 AM			Scientific Session Space Medicine 2			
12:00 PM						
12:30 PM	Lunch Break & Oral Poster Sessions					
1:00 PM						
1:30 PM	Key Note Lecture		Scientific Session Advances in Spine	Scientific Session NeuroEngineering	Scientific Session Brainmapping & Psychological Disorders	Scientific Session Multi-modality Physiologic Brain Tumor Imaging
2:00 PM	Scientific Session DARPA					
2:30 PM						
3:00 PM	Coffee Break					
3:30 PM	Scientific Session Veteran-centric CNS Disorders: Injury and Disease	Scientific Session Neurophysiology / Epilepsy	Scientific Session NeuroOncology		Scientific Session Brain Implants and Neuromodulation	Scientific Session Biophotonics
4:00 PM						
4:30 PM						
5:00 PM	Oral Poster Session 1	Oral Poster Session 2	Oral Poster Session 3	Oral Poster Session 4		
5:30 PM						
7:00 PM					Door Opening	
8:00 PM					Gala Dinner W Hotel in San Francisco	



Breaking Boundaries of Science,
Technology, Medicine, Art and Healthcare Policy

Annual World Congress of IBMISPS on Brain, Spinal Cord Mapping and Image Guided Therapy

June 8th, 9th, 10th, 2011

International Brain Mapping and Intraoperative Surgical Planning Society - IBMISPS

SCIENTIFIC PROGRAM Wednesday, June 8, 2011

8:45 - 10:00 AM

OFFICIAL WELCOME & INTRODUCTION BY THE CHAIRMAN

ROBERTSON
AUDITORIUM

Krystof Bankiewicz, Congress Co-Chairman

Babak Kateb, IBMISPS Chairman

Michael Y. Chen, Welcome from the President elect

10:00 - 10:30 AM

KEY NOTE LECTURE

ROBERTSON
AUDITORIUM

Adam M. Robinson, Jr., Navy's Bureau of Medicine and Surgery, Washington DC

11:00 - 12:30 PM

SCIENTIFIC SESSION: NAVY MEDICAL RESEARCH

ROBERTSON
AUDITORIUM

CHAIR:

Wayman Wendell Cheatham, US Navy, Washington, DC

W. K. Prusaczyk, Naval Medical Research Center, Silver Spring, MD

SPEAKERS:

MEN TO MATCH MY MOUNTAINS - PRODUCTS TO FILL OUR VALLEYS

Wayman Wendell Cheatham, US Navy, Washington, DC

SAVED BY WAR - LESSONS LEARNED FROM WARTIME SURGERY INCORPORATED INTO EVERYDAY PRACTICE

Ken Green, US Navy Bureau of Medicine and Surgery, Washington DC

TRANSLATIONAL MILITARY RESEARCH: FROM THE BATTLEFIELD TO THE BEDSIDE AND BENCH

Eric Elster, Naval Medical Research Center, Rockville, MD

A VIRTUAL REALITY HEAD TRAUMA SIMULATOR WITH HAPTIC FEEDBACK

Eric Acosta, National Capital Area Medical Simulation Center, Uniformed Services University of the Health Sciences

MORPHINE USE AFTER COMBAT INJURY IN IRAQ AND POST-TRAUMATIC STRESS DISORDER

Troy Lisa Holbrook, Naval Health Research Center, San Diego, CA

MIRROR THERAPY FOR PHANTOM LIMB PAIN

Jack W Tsao, US Navy Bureau of Medicine and Surgery, Washington DC

1:30 - 3:00 PM

SCIENTIFIC SESSION: DARPA

ROBERTSON
AUDITORIUM

CHAIR:

Geoffrey Ling, DARPA, Arlington, VA

W. K. Prusaczyk, Naval Medical Research Center, Silver Spring, MD

KEY NOTE:

DARPA TODAY

Kaigham (Ken) J. Gabriel, Defense Advanced research Project Agency (DARPA), Arlington, VA

SPEAKERS:

DARPA NEUROSCIENCE

Geoffrey Ling, DARPA, Arlington, VA

TOWARDS A DYNAMIC MODEL OF BRAIN ACTIVITY

Krishna Shenoy, Stanford University, Stanford, CA

FUNCTIONAL BRAIN MODELING BRAIN

Karl Deisseroth, Stanford University, Stanford, CA

NEW METHODS FOR MEASURING BRAIN ACTIVITY

Jack Judy, DARPA, Arlington, VA



Breaking Boundaries of Science,
Technology, Medicine, Art and Healthcare Policy

Annual World Congress of IBMISPS on Brain, Spinal Cord Mapping and Image Guided Therapy June 8th, 9th, 10th, 2011

International Brain Mapping and Intraoperative Surgical Planning Society - IBMISPS

SCIENTIFIC PROGRAM **W**ednesday, June 8, 2011

3:30 - 5:00 PM

SCIENTIFIC SESSION: VETERAN-CENTRIC CNS DISORDERS: INJURY AND DISEASE

**ROBERTSON
AUDITORIUM**

CHAIR:

Stuart Hoffman, Department of Veterans Affairs, Washington DC

SPEAKERS:

**AN AUTOMATIC MEG SOURCE IMAGING APPROACH FOR DIAGNOSING
MILD AND MODERATE TBI PATIENTS WITH BLAST AND NON-BLAST CAUSES**

Mingxiong Huang, University of California, San Diego, CA

PTSD AND NEUROPLASTICITY: EVIDENCE FROM STRUCTURAL MRI

Thomas Neylan, University of California, San Francisco, CA

BLAST+ TBI AND NON-BLAST TBI: SAME ANIMAL OR DIFFERENT

Deborah Little, University of Illinois Medical Center

SPINAL fMRI AND DETECTION OF PAIN:

RECENT ADVANCES IN NEUROIMAGING

Sean Mackey, Stanford University School of Medicine, Stanford, CA

**MULTIMODAL NEUROIMAGING OF BLAST CONCUSSION MILD TRAUMATIC
BRAIN INJURY IN OIF/OEF VETERANS**

Elaine Peskind, University of California, San Francisco, CA

**MULTIMODALITY IMAGING TO DETECT NEURODEGENERATIVE DISEASE:
THE ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE (ADNI)**

Michael W. Weiner, University of California, San Francisco, CA

3:30 - 5:00 PM

SCIENTIFIC SESSION: NEUROPHYSIOLOGY / EPILEPSY

**FISHER
BANQUET**

CHAIR:

Philip A. Defina, International Brain Research Foundation, Edison, NJ

Max J. Hilz, University of Erlangen-Nuremberg, Erlangen, Germany

SPEAKERS:

**EEG CORRELATES OF IMPROVED OUTCOMES FROM SEVERE DISORDERS
OF CONSCIENCES USING A NOVEL TREATMENT PROTOCOL UTILIZING
ELECTRICAL BRAIN MAPPING**

Philip A. De Fina, International Brain Research Foundation, Edison, NJ

**FREQUENCY ANALYSIS REVEALS SUBTLE CARDIAC AUTONOMIC DYSFUNC-
TION IN PATIENTS WITH MILD TRAUMATIC BRAIN INJURY**

Max J. Hilz, University of Erlangen-Nuremberg, Erlangen, Germany

**BRAIN DYNAMICS AND TRANSLATION INTO NEURODIAGNOSTIC MAR-
KERS**

Urs Ribary, Simon Fraser University (SFU), University of British Columbia (UBC), Van-
couver, Canada

**AN ICA-BASED EPILEPTIC SEIZURE DETECTION METHOD USING ECOG SI-
GNALS**

Yu Han, University of California - Santa Cruz, CA

**IDENTIFYING THE TRIGEMINAL NERVE BRANCHES FOR TRANSORAL RA-
DIOFREQUENCY-THERMOLESION: "NO PAIN, NO STRESS"**

Carlos Ciruolo, Hospital Italiano de Buenos Aires, Argentina

**METABOLIC CHARACTERIZATION OF GRAY AND WHITE MATTER IN MILD
TRAUMATIC BRAIN INJURY WITH 3D PROTON MR SPECTROSCOPY**

Ivan Kirov, New York University School of Medicine, New York, USA



Annual World Congress of IBMISPS on Brain, Spinal Cord Mapping and Image Guided Therapy

June 8th, 9th, 10th, 2011

International Brain Mapping and Intraoperative Surgical Planning Society - IBMISPS

SCIENTIFIC PROGRAM

Thursday, June 9, 2011

8:45 - 9:00 AM

WELCOME & INTRODUCTION

ROBERTSON
AUDITORIUM

Massimo S. Fiandaca, Congress Co-Chairman
Babak Kateb, IBMISPS Chairman
Michael Y. Chen, Welcome from the President elect

9:00 - 09:30 AM

KEY NOTE LECTURE

ROBERTSON
AUDITORIUM

Ramon (Ray) Lugo III, Director of NASA Glenn Research Center

09:30 - 10:00 AM

KEY NOTE LECTURE

ROBERTSON
AUDITORIUM

Rocco Armonda, Director of Cerebrovascular surgery & Interventional Neuroradiology for National Capital Neurosurgery Consortium, Walter Reed Medical Center

10:30 - 11:30 AM

SCIENTIFIC SESSION: SPACE MEDICINE 1

ROBERTSON
AUDITORIUM

CHAIR:

Jeffrey R. Davis, NASA-Johnson Space Center, Houston, TX
Saralyn Mark, Georgetown University Schools of Medicine, Washington DC

SPEAKERS:

A NEW BUSINESS MODEL FOR PROBLEM SOLVING IN SPACE MEDICINE - INFUSING OPEN COLLABORATION AND INNOVATION

Jeffrey R. Davis, NASA-Johnson Space Center, Houston, TX

THE IMPACT OF SEX IN SPACE

Saralyn Mark, Georgetown University Schools of Medicine, Washington DC

ASSESSMENT OF OCULAR AND SYSTEMIC DISEASES USING THE EYE AS THE WINDOW TO THE BODY

Rafat Ansari, NASA - Glenn Research Center, Cleveland, OH

Predicting astronaut health status with computational simulations

Jerry Myers, NASA - Glenn Research Center, Cleveland, OH

11:30 - 12:30 PM

SCIENTIFIC SESSION: SPACE MEDICINE 2

ROBERTSON
AUDITORIUM

CHAIR:

Jeffrey P. Sutton, Baylor College of Medicine, Houston, TX
Minoru Freund, NASA Ames Research Center

SPEAKERS:

THE BRAIN IN SPACE

Jeffrey P. Sutton, Baylor College of Medicine, Houston, TX

NASA SUPERCOMPUTING FOR HUMAN SPACE FLIGHT APPLICATIONS

Rupak Biswas, NASA Ames Research Center

MODERN ARTIFICIAL INTELLIGENCE METHODS AND THEIR APPLICATIONS IN BRAIN TUMOR SEGMENTATION

Ara Nefian, NASA Ames Research Center

CARBON NANOFIBER ELECTRODE AND WIRELESS INSTANTANEOUS NEUROTRANSMITTER CONCENTRATION SENSOR SYSTEM FOR FAST SCAN CYCLIC VOLTAMMETRY DETECTION OF DOPAMINE AND ADENOSINE

Jessica Koehne, NASA Ames Research Center



Breaking Boundaries of Science,
Technology, Medicine, Art and Healthcare Policy

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SCIENTIFIC PROGRAM

Thursday, June 9, 2011

10:30 - 12:00 PM

SCIENTIFIC SESSION: CONVECTION – ENHANCED DELIVERY OF THERAPEUTIC AGENTS

FISHER
BANQUET

CHAIR:

Krystof Bankiewicz, University of California, San Francisco, CA

Massimo S. Fiandaca, University of California, San Francisco, CA

SPEAKERS:

CONVECTION ENHANCED DELIVERY OF AGENTS TO TREAT CENTRAL NERVOUS SYSTEM DISORDERS – A HISTORICAL REVIEW

John Heiss, NINDS, NIH, Bethesda, MD

CONVECTION IN NEURO-ONCOLOGY: PHASE I TO PHASE III (PRECISE), LESSONS LEARNED

Sandeep Kunwar, Taylor McAdam Bell Neuroscience Institute, San Francisco, CA

DIRECT CONVECTIVE DELIVERY TO THE BRAINSTEM

Russell R. Lonser, National Institutes of Health, Bethesda, MD

TRANSLATIONAL IMAGE-GUIDED DELIVERY OF THERAPEUTICS TO THE BRAIN: ADVANCES FOR NEURO-ONCOLOGY, NEURODEGENERATIVE DISEASE, AND INHERITED METABOLIC DISORDERS

Massimo S. Fiandaca, University of California, San Francisco, CA

CONVECT, ENHANCE & DELIVER; NOVEL DEVICES AND METHODS FOR DIRECT BRAIN DRUG DELIVERY

Kate Hammond Rosenbluth, University of California, School of Medicine, San Francisco, CA

MRI GUIDED CONVECTION-ENHANCED DELIVERY OF NIMUSTINE HYDROCHLORIDE AGAINST RECURRENT GLIOMA AFFECTING BRAINSTEM

Ryuta Saito, Tohoku University Graduate School of Medicine, Japan

12:00 - 12:30 PM

PLOS ONE: NEUROMAPPING & THERAPEUTICS PUBLICATION OF IBMISPS

FISHER
BANQUET

Peter Binfield

1:30 - 3:00 PM

SCIENTIFIC SESSION: ADVANCES IN SPINE

ROBERTSON
AUDITORIUM

CHAIR:

J. Patrick Johnson, Cedars-Sinai Medical Center, Los Angeles, CA

Amir Vokshoor, Marina del Rey, CA

SPEAKERS:

COMPUTERIZED NAVIGATION IN SPINAL SURGERY

J. Patrick Johnson, Cedars-Sinai Medical Center, Los Angeles, CA

GENE SILENCING: GLUTAMATE CAN BE THE BAD GUY IN THE PERIPHERY AND NOT ONLY IN THE CNS

Luc Dupont Jasmin, University of California, San Francisco, CA

THE CURRENT STATUS OF ENDOSCOPIC SPINE SURGERY AND ITS APPLICATIONS

Anthony T. Yeung, Desert Institute for Spine Care, Phoenix, AZ

SPINAL RADIOSURGERY

Alessandra Gorgulho, University of California, Los Angeles, CA

UPDATES IN SPINE AND SPINAL CORD SURGERY

Amir Vokshoor, Marina del Rey, CA

MAPPING THE SPINAL CORD CONNECTOME

Nicolae Adrian Iftimia, Brandeis University



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SCIENTIFIC PROGRAM

Thursday, June 9, 2011

1:30 - 3:00 PM

SCIENTIFIC SESSION: NEUROENGINEERING

FISHER
BANQUET

CHAIR:

Edward F. Chang, University of California, San Francisco, CA

Steven Conolly, University of California Berkeley College of Engineering,
Berkeley, CA

SPEAKERS:

MICRO-SCALE DISSECTION OF PHONETIC REPRESENTATION IN THE HUMAN TEMPORAL LOBE

Edward F. Chang, University of California, San Francisco, CA

MAGNETIC PARTICLE IMAGING: A NEW ANGIOGRAPHIC IMAGING MODALITY WITH NO CATHETER, NO RADIATION, NO KIDNEY RISK... AND NO MRI SCANNER

Steven Conolly, University of California Berkeley College of Engineering,
Berkeley, CA

NEURAL ADAPTATIONS TO A BRAIN-MACHINE INTERFACE

Jose M. Carmena, University of California, Berkeley and San Francisco, CA

TOWARD CLINICALLY VIABLE CORTICALLY-CONTROLLED PROSTHESES

Krishna V. Shenoy, Stanford University, Stanford, CA

ANATOMIC AND FUNCTIONAL BRAIN MAPPING OF NEWBORNS USING MRI

Duan Xu, University of California, San Francisco, CA

3:30 - 5:00 PM

SCIENTIFIC SESSION: NEUROONCOLOGY

ROBERTSON
AUDITORIUM

CHAIR:

Mitchel S. Berger, University of California, San Francisco, CA

Alessandro Olivi, Johns Hopkins University School of Medicine, Baltimore, MD

SPEAKERS:

FUNCTIONAL MAPPING TO MAXIMIZE GLIOMA RESECTION WHILE MINIMIZING MORBIDITY

Mitchel S. Berger, University of California, San Francisco, CA

RESPONSE OF BIOLUMINESCENT INTRACRANIAL MELANOMA TO CONVECTION-ENHANCED DELIVERY OF SORAFENIB

Michael Y. Chen, City of Hope Cancer Center, Duarte, CA

SUBCORTICAL VALIDATION OF ELOQUENT WHITE MATTER TRACTS WITH DAT (DEFORMABLE ANATOMIC TEMPLATE) DURING GLIOMA RESECTION

Sujit S. Prabhu, Baylor College of Medicine, Houston, TX

PRESURGICAL FUNCTIONAL MAPPING - THE NEUROSURGEON'S PERSPECTIVE

Alessandro Olivi, Johns Hopkins University School of Medicine, Baltimore, MD

IMMUNOTHERAPY FOR BRAIN TUMORS

Michael Lim, Johns Hopkins University School of Medicine, Baltimore, MD

PREDICTIVE VALUE AND SAFETY OF INTRAOPERATIVE NEUROPHYSIOLOGICAL MONITORING USING MOTOR EVOKED POTENTIALS IN GLIOMA SURGERY

Sandro Krieg, Klinikum rechts der Isar, Technische Universität München, Munich, Germany





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SCIENTIFIC PROGRAM

Friday, June 10, 2011

9:00 - 10:30 AM

SCIENTIFIC SESSION: NANO BIO-ELECTRONICS / STEMCELLS 1

ROBERTSON
AUDITORIUM

CHAIR:

Alfredo Quiñones-Hinojosa, Johns Hopkins University, Baltimore, MD

Babak Kateb, Cedars - Sinai Medical Center, Los Angeles, CA

SPEAKERS:

TRACKING STEM CELLS IN BRAIN TUMOR RESEARCH: CHALLENGES AND FUTURE PROSPECTS

Alfredo Quiñones-Hinojosa, Johns Hopkins University, Baltimore, MD

NEW DIMENSIONS IN PATTERNING: PLACEMENT AND METROLOGY OF CHEMICAL FUNCTIONALITY AT ALL SCALES

Paul Weiss, California Nano-System Institute, UCLA, CA

HUMAN NEURAL STEM CELL THERAPY FOR STROKE

Gary K. Steinberg, Stanford University School of Medicine, Stanford, CA

OXIDATIVE STRESS INDUCED NANOPRODRUG CHEMOTHERAPEUTICS FOR THE TREATMENT OF GLIOBLASTOMA

John S. Yu, Cedars-Sinai Medical Center, Los Angeles, CA

HOW GOLD NANOPARTICLES CAN ENTER THE BRAIN!

Silke Krol, Fondazione I.R.C.C.S. Neurologic Institute «Carlo Besta», Italy

PRECLINICAL AND CLINICAL EXPERIENCE WITH NON-INVASIVE IMAGING AND HOMING OF STEM CELLS

Mirosław Janowski, Medical Research Center Polish Academy of Science, Poland

9:00 - 10:30 AM

SCIENTIFIC SESSION: MULTIMODAL IMAGING OF PRECLINICAL AND SUBCLINICAL COGNITIVE IMPAIRMENT AND LONGITUDINAL MONITORING

FISHER
BANQUET

CHAIR:

J. Wesson Ashford, Stanford University, Stanford, CA

SPEAKERS:

CLINICAL CONTEXT AND APPLICATION OF BRAIN IMAGING: ALZHEIMER'S DISEASE, TRAUMATIC BRAIN INJURY

J. Wesson Ashford, Stanford University, Stanford, CA

HIPPOCAMPAL MICROSTRUCTURE IN EARLY ALZHEIMER'S DISEASE USING ULTRA-HIGH FIELD 7-TESLA MRI

Geoffrey A. Kerchner, Stanford University School of Medicine

IMAGING BRAIN PATHOLOGY IN ALZHEIMER'S DISEASE AND TRAUMATIC BRAIN INJURY: AMYLOID IMAGING (PIB) AND DIFFUSION TENSOR IMAGING (DTI)

Ansgar Furst, Stanford University, Stanford, CA

THE IMPACT OF AGE-RELATED BRAIN CHANGES ON FLIGHT SIMULATOR PERFORMANCE AND DECISION-MAKING

Maheen M. Adamson, Stanford University, Stanford, CA

IMAGE GUIDED TMS (TRANSCRANIAL MAGNETIC STIMULATION) FOR EVALUATING AND TREATING BRAIN DISORDERS

Allyson Rosen, Stanford University, Stanford, CA

MULTIMODAL PRE-SURGICAL MAPPING OF WHITE MATTER PATHWAYS

Roland Henry, University of California, San Francisco



Breaking Boundaries of Science,
Technology, Medicine, Art and Healthcare Policy

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SCIENTIFIC PROGRAM

Friday, June 10, 2011

11:00 - 12:30 PM

SCIENTIFIC SESSION: NANO BIO-ELECTRONICS / STEMCELLS 2

ROBERTSON
AUDITORIUM

CHAIR:

NEURAL PROGENITORS FROM HUMAN PLURIPOTENT STEM CELLS

Martin Pera, Eli Broad Stem cell Center, USC-Keck School of Medicine, CA

NUCLEAR TOPOLOGY OF DNA METHYLATION: THE POTENTIAL OF A CHROMATIN LANDMARK IN FUNCTIONAL CELL MAPPING AND TARGETED THERAPY

Jian Tajbakhsh, Cedars-Sinai Medical Center, Los Angeles

TRAFFICKING OF DENDRITIC CELLS INTO THE CENTRAL NERVOUS SYSTEM DURING NEUROINFLAMMATION

Divya Sagar, Drexel University College of Medicine, Philadelphia

THE MECHANISMS OF RECOVERY MEDIATED BY HUMAN STEM CELL TRANSPLANTATION AFTER SPINAL CORD INJURY

Brian Cummings, Aileen Anderson, Reeve-Irvine Research Center

11:00 - 12:30 PM

SCIENTIFIC SESSION: STEREOTACTIC RADIOSURGERY

FISHER
BANQUET

CHAIR:

Antonio A.F. De Salles, University of California Los Angeles, Los Angeles, CA

John Adler, Stanford School of Medicine, Stanford, CA

SPEAKERS:

IMAGING FOR RADIOSURGERY FROM THE BRAIN TO THE SPINE

Antonio A.F. De Salles, University of California Los Angeles, Los Angeles, CA

NOVEL LINAC ACCELERATOR TECHNOLOGIES

John Adler, Stanford School of Medicine, Stanford, CA

ADVANCES IN GAMMA KNIFE RADIOSURGERY

Michael McDermott, UCSF Gamma Knife®, San Francisco, CA

PROTON THERAPY: HARNESSING THE POWER OF THE BRAGG PEAK

Reinhard W. Schulte, Loma Linda University Medical Center, Loma Linda, CA

IMAGING INTEGRATION FOR CYBER KNIFE

Steven Chang, UCSF Department of Neurosurgery, CA

CYBERKNIFE HYPO-FRACTIONATED RADIATION THERAPY (HSRT) IN THE TREATMENT OF LARGE-VOLUME CEREBRAL TUMORS

Clark C. Chen, Harvard Medical School, Boston, MA



SCIENTIFIC PROGRAM

Friday, June 10, 2011

1:30 - 3:00 PM

SCIENTIFIC SESSION: NCIRE INTERDISCIPLINARY RESEARCH INITIATIVES IN NEUROIMAGING, NEURO- SCIENCE AND NEUROREHABILITATION

ROBERTSON
AUDITORIUM

CHAIR:

Thomas Neylan, University of California, San Francisco, CA

SPEAKERS:

CHANGES IN BRAIN ANATOMY AND COGNITION DURING CHRONIC PTSD
Valerie Cardenas-Nicolson, Center for Imaging of Neurodegenerative Diseases, SFVAMC

BRAIN IMAGING STUDIES OF BATTLE-RELATED CONDITIONS
Linda Chao, Center for Imaging of Neurodegenerative Diseases, SFVAMC

**INDUCTION OF CORTICAL PLASTICITY THROUGH NEUROFEEDBACK IN
NON-HUMAN PRIMATES**
Karunesh Ganguly, Neurology and Rehabilitation Service, SFVAMC

**THE RELATIONSHIP BETWEEN MILD TRAUMATIC BRAIN INJURY AND MEN-
TAL HEALTH SYMPTOMS IN IRAQ AND AFGHANISTAN VETERANS IN VA
CARE: DISTINCT OR OVERLAPPING SYMPTOMS?**
Shira Maguen, Mental Health Service, SFVAMC (presented by Thomas Neylan)

BRAIN MRI SIGNATURE OF PTSD
Norbert Schuff, Center for Imaging of Neurodegenerative Diseases, SFVAMC

**MODELING AND MANIPULATING CORTICAL CIRCUITS FOR NEUROSCIENCE
DISCOVERY AND NOVEL THERAPIES**
Philip N. Sabes, University of California, San Francisco, CA

1:30 - 3:00 PM

SCIENTIFIC SESSION: MULTI-MODALITY PHYSIOLOGIC BRAIN TUMOR IMAGING

FISHER
BANQUET

CHAIR:

Jay J. Pillai, Johns Hopkins Univ. School of Medicine, Baltimore, MD

Mark Shiroishi, University of Southern California, Los Angeles, CA

SPEAKERS:

FUNCTIONAL MRI AND DTI FOR PRESURGICAL MAPPING
Jay J. Pillai, Johns Hopkins Univ. School of Medicine, Baltimore, MD

MR PERFUSION IMAGING OF BRAIN TUMORS
Mark Shiroishi, University of Southern California, Los Angeles, CA

DTI/HARDI OF BRAIN TUMORS
Pratik Mukherjee, University of California, San Francisco, CA

**EVALUATION OF STRUCTURAL AND FUNCTIONAL BRAIN CONNECTIVITY
USING MRI: AN OVERVIEW**
Christopher Hess, University of California, San Francisco, CA

**INTRAOPERATIVE MRI WITH THE MEDTRONIC POLESTAR N30: FIRST TEN
CASES IN THE UNITED STATES**
Ray Chu, Cedars-Sinai Medical Center, Los Angeles, CA

**DIRECT ANATOMIC TARGETING IN DBS SURGERY: BRAIN MAPPING BASED
ON STRUCTURAL MRI AND TRACTOGRAPHY**
Jean-Jacques Lemaire, CHU Clermont-Ferrand, Hôpital Gabriel Montpied, France



SCIENTIFIC PROGRAM

Friday, June 10, 2011

3:30 - 5:30 PM

SCIENTIFIC SESSION: BRAIN IMPLANTS AND NEUROMODULATION

ROBERTSON
AUDITORIUM

CHAIR:

Antonio A.F. De Salles, University of California Los Angeles, Los Angeles, CA

Michael S. Okun, University of Florida Movement Disorders Center, National Parkinson Foundation, Gainesville, FL

SPEAKERS:

IMAGING AND TARGETS FOR NEUROMODULATION

Antonio A.F. De Salles, University of California Los Angeles, Los Angeles, CA

CLINICAL ASPECTS OF DBS

Michael S. Okun, University of Florida Movement Disorders Center, National Parkinson Foundation, Gainesville, FL

INTRAOPERATIVE CORTICAL AND BASAL GANGLIA RECORDING IN MOVEMENT DISORDERS

Philip A. Starr, University of California, San Francisco, CA

FIBER TRACKING AND PROGRAMMING

Scott E. Krah, University of California, Los Angeles, CA

EMERGING TECHNOLOGIES FOR INTERVENTIONAL MRI GUIDED FUNCTIONAL NEUROSURGERY

Paul S. Larson, University of California, San Francisco, CA

TENTATIVE TALK: BRAIN IMPEDANCE RECOVERY AFTER DBS IMPLANTATION: «LESION EFFECT?»

Zachary T. Levine, Washington Brain & Spine Institute, Washington DC

THE DENTATO-RUBRO-THALAMIC TRACT (DRT) MIGHT BE THE TRUE TARGET STRUCTURE IN DEEP BRAIN STIMULATION FOR THERAPY REFRACTORY TREMOR. EVIDENCE FROM A DIFFUSION TENSOR IMAGING (DTI) TRACTOGRAPHY STUDY

Volker A. Coenen, University of Bonn Medical Center, Bonn German

THE HUMAN HYPERDIRECT PATHWAY: AN IMAGING AND PHYSIOLOGICAL STUDY

Jaimie M. Henderson, Stanford University School of Medicine

3:30 - 5:30 PM

SCIENTIFIC SESSION: BIOPHOTONICS AND MULTIMODALITY

FISHER
BANQUET

CHAIR:

Daniel L. Farkas, International Musculoskeletal Laser Society

Warren Grundfest, University of California, Los Angeles, CA

SPEAKERS:

ADVANCED NON-INVASIVE OPTICAL NEUROIMAGING

Bruce J. Tromberg, Beckman Laser Institute

IMAGE-GUIDED RESECTION OF MEDULLOBLASTOMA USING A MINIATURE CONFOCAL MICROSCOPE

Christopher H. Contag, Society for Molecular Imaging, CA

TRANSLATIONAL BIOPHOTONICS FOR THE OPERATING ROOM OF THE FUTURE

Daniel L. Farkas, International Musculoskeletal Laser Society, CA

4D ULTRASOUND CURRENT SOURCE DENSITY IMAGING: A NEW MODALITY FOR NONINVASIVE ELECTRICAL BRAIN MAPPING?

Russell Witte, University of Arizona, AZ



ORAL POSTER

Oral Posters will be displayed on Poster boards during the congress together with all other Posters.

In addition, the main authors will present their poster in form of a short oral presentation according to the following schedule:

Wednesday, June 8, 2011

12:30 - 13:30 / Robertson Auditorium

LUNCH BREAK & ORAL POSTER SESSION

Magnetic resonance Spectroscopic Imaging

P1

NOVEL AUTOMATED 3D MRSI ACQUISITION WITH WHOLE BRAIN SLICE SELECTION AND OUTER-VOLUME SUPPRESSION
E. Ozhinsky (USA), A. Kerr, S. Nelson

P2

DEVELOPMENT OF AN EARLY BIOMARKER OF MGMT ACTIVITY AND RESPONSE TO TEMOZOLOMIDE TREATMENT USING HYPERPOLARIZED ¹³C MR METABOLIC IMAGING
I. Park (USA), L. Jalbert, T. Ozawa, C. D. James, J. Phillips, D. Vigneron, R. Pieper, S. Ronen, S. Nelson

P3

IDH-MUTANT GLIOMA AND ASSOCIATED ONCO-METABOLITE 2-HYDROXYGLUTARATE CORRELATED WITH IN/EX VIVO MR IMAGING AND HISTOLOGY
A. Elkhaled (USA), J. Lewellyn, H. Yoshihara, R. Parvataneni, J. Phillips, S. Cha, S. Chang, S. Nelson

P4

MAGNETIC RESONANCE OF 2-HYDROXYGLUTARATE IN IDH-MUTATED LOW-GRADE GLIOMA
L. Jalbert (USA), A. Elkhaled, J. Phillips, H. Yoshihara, R. Parvataneni, R. Srinivasan, G. Bourne, S. Chang, S. Cha, S. Nelson

Wednesday, June 8, 2011

12:30 - 13:30 / Fisher Banquet

LUNCH BREAK & ORAL POSTER SESSION

Imaging modalities for detecting mild/mod TBI, micro-TBI

P5

EVALUATION OF MILD AND MODERATE TRAUMATIC BRAIN INJURY BY WHOLE-BRAIN MR SPECTROSCOPIC IMAGING
A. Maudsley (USA), V. Govind, L. Harris, S. Gold, G. Saigal, K. Arheart, J. Jagid

P6

BRAINSTEM/MIDBRAIN IMAGING FOR OCULOMOTOR DYSFUNCTION IN MILD TRAUMATIC BRAIN INJURY
C. Tyler (USA), L. Likova, G. Goodric

P7

GENERATION OF AN MNI ATLAS IN SIMON FINITE ELEMENT HEAD MODEL SPACE
J. Urban (USA), J. Maldjian, D. Moreno, C. Whitlow, J. Stitzel

ISP & Image guided surgery

P8

WHY ARE NEUROSURGEONS NOT USING FUNCTIONAL MRI? A MULTICENTER PROJECT FOR DEVELOPMENT OF STANDARDIZED CLINICAL FMRI PROTOCOLS.
G. J. Rutten (Netherlands), M. Jansma, A. Bizzi, E. Hattingen, K. Rosengarth, N. Ramsey

Wednesday, June 8, 2011

17:00 - 18:30 / Robertson Auditorium

ORAL POSTER SESSION

Brain Mapping and Intra-operative Surgical Planning using Endoscopy

P9

IMPORTANCE OF LOW-AMPLITUDE POSITIVE FACIAL NERVE STIMULATION FOLLOWING CP ANGLE TUMOR SURGERY
B. Guthikonda (USA)

P10

LIMITING THE CURRENT DENSITY DURING LOCALIZATION OF THE PRIMARY MOTOR CORTEX BY USING A TANGENTIAL-RADIAL CORTICAL SSEP MODEL, DECS AND ELECTROCORTICOGRAPHY
F. Jahangiri (USA), J. Sherman, J. Sheehan, M. Shaffrey, A. Dumont, M. Vengrow, F. Vega-Bermudez

P11

IMPROVED SAFETY AND EFFICACY OF MOTOR MAPPING UTILIZING SHORT PULSE-TRAIN DIRECT CORTICAL STIMULATION
M. Tate (USA), G. LanJun, R. Noss, E. Chang

Brain mapping/functional imaging for rehab medicine and PTSD

P12

IMPROVEMENT IN BRAIN FUNCTION WITH EXPOSURE THERAPY FOR POSTTRAUMATIC STRESS DISORDER
M. Roy (USA), J. Francis, P. Taylor, J. Blair, H. Yu, A. Mallinger, J. McLellan, I. Patt, W. Law, J. Friedlander, L. Banks-Williams, R. G. Lande

ISP & Image guided surgery

P13

USING FUNCTIONAL NEUROIMAGING COMBINED WITH A THINK-ALOUD PROTOCOL TO EXPLORE CLINICAL REASONING EXPERTISE IN INTERNAL MEDICINE
S. Durning (USA), J. Graner, L. Pangaro, A. Artino Jr., T. Beckman, E. Holmboe, T. Oakes, M. Roy, G. Riedy, V. Capaldi, R. Walter, C. van der Vleuten, L. Schuwirth



Wednesday, June 8, 2011

17:00 - 18:30 / Robertson Auditorium

ORAL POSTER SESSION

Neurophysiology

P14

THE APPLICATION OF MICROELECTRODE ARRAYS TECHNIQUE ON FIELD ACTION POTENTIAL OF THORACIC SPINAL CORD 1-5 NERVES AND CARDIAC TISSUE IN CHRONIC STRESS RAT MODEL
Y. Hou (China), Z. Liu, Q. Zhou

P15

COMPLEX NETWORK ANALYSIS OF INTRAOPERATIVE ECOG DATA
G. Ortega (Spain), R. Garcia de Sola, J. Pastor

P16

VAGUS NERVE STIMULATION EFFECTS ON BEHAVIOR IN PATIENTS WITH AUTISM
E. Tsimerinov (USA), C. Niesen, N. Niparko, D. Eliashiv

Image guided systems

P18

FREQUENTLY DETECTED PATTERN OF ABNORMALITY IN PATIENTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDERS USING BRAIN SINGLE PHOTON EMISSION TOMOGRAPHY (SPECT) IMAGING
I. Gayed (USA), J. Awad, D. Wan, U. Joseph, S. John

Operational issues

P19

POSTOPERATIVE ISCHEMIC CHANGES FOLLOWING GLIOMA RESECTION AS MEASURED BY DIFFUSION WEIGHTED MAGNETIC RESONANCE IMAGING AND THEIR CORRELATION WITH INTRAOPERATIVE MOTOR EVOKED POTENTIALS
J. Gempt (Germany), S. Krieg, E. Shiban, N. Buchmann, Y. M. Ryang, B. Meyer, A. Förschler, F. Ringel

Thursday, June 9, 2011

12:30 - 13:30 / Robertson Auditorium

LUNCH BREAK & ORAL POSTER SESSION

Multi-Modality

P20

VOLUME EXPANSION IN ARTERIO-VENOUS MALFORMATIONS TREATED WITH ONYX
J. Kraus (USA), A. El-Gengaihy, D. Sharma, V. Patel, S. Samudrala, O. Cornett, A. Jacobs, C. Prestigiacomo, C. Gandhi

P21

ELECTRONEUROSTIMULATION CAPABILITIES IN PATIENTS WITH VERTEBRAL CEREBRO-SPINAL INJURIES
A. Toma (Russian Federation), V. Ninel, S. Gramma, A. Norkin, T. Borovskaya, S. Jankin, G. Toma, K. Petrova, I. Toma

P22

DIFFUSION TENSOR IMAGING (DTI) AND POSITRON EMISSION TOMOGRAPHY (PET) SCAN FINDINGS AND NEUROPSYCHOLOGICAL TESTS IN MILD TRAUMATIC BRAIN INJURY
J. Wu (USA), J. Z. Tsai

P23

SPHENOPALATINE GANGLION BLOCK IN TRAUMATIC TRIGEMINAL NEURALGIA AND THE OUTCOME TO RADIOSURGICAL ABLATION-ONE YEAR RESULTS.
C. Zarembinski (USA)

Thursday, June 9, 2011

12:30 - 13:30 / Fisher Banquet

LUNCH BREAK & ORAL POSTER SESSION

Rehabilitation Medicine

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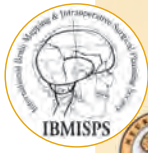
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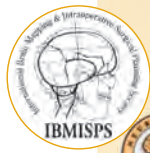
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Q. Li (USA)





FACULTY

Eric Acosta

Computer Research Scientist
National Capital Area Medical Simulation Center, USUHS, Bethesda,
MD

Maheen M. Adamson

Deputy Director, Database Core, War Related Illness and Injury Study
Center
Clinical Assistant Professor, Department of Psychiatry and Behavioral
Sciences (affiliated), Stanford University

John Adler

Professor of Neurosurgery
Stanford University, Stanford, CA

Aileen Anderson

Associate Professor
University of California Irvine
Sue and Bill Gross Stem Cell Center
MIND Institute for Memory Impairments and Neurological Disorders
Director, Christopher & Dana Reeve Foundation SCI Core

Rafat Ansari

Bioscience and Technology Branch
Space Processes and Experiments Division
NASA - Glenn Research Center, Cleveland, OH

J. Wesson Ashford

Director, War Related Illness and Injury Study Center, VA Palo Alto
Health Care System
Clinical Professor, Department of Psychiatry and Behavioral Sciences
(affiliated), Stanford University

Krystof Bankiewicz

Professor of Neurosurgery and Neurology,
Kinetics Foundation Chair in Translational Research, Department of
Neurological Surgery,
University of California, San Francisco, CA

Mitchel S. Berger

Professor and Chairman, Department of Neurological Surgery
Kathleen M. Plant Distinguished Professor
Director, Brain Tumor Surgery Program
Director, Neurosurgical Research Centers,
Brain Tumor Research Center
University of California, San Francisco, USA

Rupak Biswas

Division Chief (Acting)
NASA Ames Research Center, Moffett Field, CA

Valerie Cardenas-Nicolson

Associate Adjunct Professor of Radiology, UCSF
Staff Research Scientist, Center for Imaging of Neurodegenerative
Diseases, SFVAMC

Jose M. Carmena

Assistant Professor of Electrical Engineering, Cognitive Science,
and Neuroscience Co-Director, Center for Neural Engineering and
Prostheses at University of California, Berkeley and San Francisco, CA

Edward F. Chang

Assistant Professor, Co-Director, Center for Neural Engineering and
Prostheses Faculty, Keck Center for Integrative Neuroscience Depart-
ments of Neurological Surgery and Physiology
University of California, San Francisco, CA

Linda Chao

Associate Adjunct Professor of Radiology and Psychiatry, UCSF
Staff Research Scientist, Center for Imaging of Neurodegenerative
Diseases, SFVAMC

Wayman Wendell Cheatham

Special Assistant for Medical Research to The Navy Surgeon General
& Director, Navy Medicine Research and Development
Bureau of Medicine and Surgery,
US Navy, Washington, DC, USA

Clark C. Chen

Director of Clinical Neuro-oncology
Beth Israel Deaconess Medical Center
Director of core and advanced neurosurgical clerkship
Harvard Medical School, Boston, MA

Michael Y. Chen

President Elect of IBMISPS
Assistant Professor of Neurosurgery
Section Head, Malignant Brain Tumor Program
City of Hope National Cancer Center, Duarte, CA

Steven Chang

Professor Department of Neurosurgery
Robert C. and Jeannette Powell Professor in the Neurosciences

Steven Conolly

Professor of Bioengineering, Electrical Engineering and Computer
Sciences, Vice Chair of Instruction in Bioengineering, Director of the
Berkeley Imaging Systems Laboratory,
University of California Berkeley College of Engineering, Berkeley, CA

Christopher H. Contag

Associate Professor, Pediatrics, Neonatology, Microbiology, Immuno-
logy and Radiology
Co-director, Molecular Imaging Program at Stanford
Director, Stanford Center for Innovation in In Vivo Imaging
Director, Stanford Near Infrared Optics and Free Electron Laser Cen-
ter
Past President, Society for Molecular Imaging

Brian J. Cummings

Associate Professor
Physical Medicine & Rehabilitation
Anatomy & Neurobiology
Institute for Memory Impairments & Neurological Disorders
Sue & Bill Gross Stem Cell Center

Jeffrey R. Davis

Director, Space Life Sciences
NASA-Johnson Space Center, Houston, TX, USA



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Massimo S. Fiandaca

Associate Research Scientist
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Assistant Professor of Neurology, UCSF
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Department of Neurosurgery
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University of California, San Francisco

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Assistant Professor in Residence
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University of California, San Francisco, CA

Max Hilz

Department of Neurology, New York University Medical Center, New York, and University of Erlangen-Nuremberg, Erlangen, Germany

Stuart W. Hoffman

Scientific Program Manager for Brain Injury
Rehabilitation Research and Development Service
Office of Research and Development
Department of Veterans Affairs, Washington DC

Troy Lisa Holbrook

Project Director
Wounded Warrior Recovery Project (WWRP)
Naval Health Research Center, San Diego, CA

Mingxiong Huang

Associate Adjunct Professor
Associate Director of MEG
Department of Radiology
University of California, San Diego, CA

J. Patrick Johnson

Spine Center
Department of Neurosurgery
Cedars-Sinai Medical Center, Los Angeles, CA

Jack Judy

Program Manager, DARPA, Arlington, VA

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Founding Chairman of the Board of IBMISPS and Brain Mapping Foundation, Scientific Director of IBMISPS and Brain Mapping Foundation
Research Scientists, Department of Neurosurgery,
Cedars Sinai Medical Center, Los Angeles, CA



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Assistant Professor of Neurology and Neurological Sciences
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Center for Nanotechnology, NASA Ames Research Center, Moffett Field, CA

Scott E. Krah

Associate Professor, Department of Neurosurgery
Deputy Associate Chief of Staff, Research & Development
Greater Los Angeles VA Healthcare System
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Associate Professor, Department of Neurosurgery Surgical Director,
California Center for Pituitary Disorders Co-Director,
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Department of Neurological Surgery
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Director Functional Neurosurgery: Washington Hospital Center,
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Assistant Professor of Neurosurgery, Oncology and Institute of Nano-Biotechnology
Johns Hopkins Hospital, Baltimore, MD

COL Geoffrey Ling

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Departments of Neurology and Rehabilitation, University of Illinois Medical Center and Jesse Brown VA Medical Center

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Chief, Pain Management Division
Associate Professor
Stanford University School of Medicine, Stanford, CA

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Assistant Clinical Professor of Psychiatry, UCSF
Staff Psychologist, Mental Health Service, SFVAMC

Saralyn Mark

Senior Medical Advisor
Office of the Chief Health and Medical Officer NASA and
Adj Associate Professor of Medicine and OB/GYN Yale and Georgetown University Schools of Medicine, Washington DC

Michael W. McDermott

Neurosurgical Director, UCSF Gamma Knife® Radiosurgery Program
Vice Chairman, Department of Neurological Surgery
Department of Neurological Surgery
University of California, San Francisco

Pratik Mukherjee

Associate Professor of Radiology and Bioengineering
University of California, San Francisco, CA

Jerry Myers

Bioscience and Technology Branch
Space Processes and Experiments Division
NASA - Glenn Research Center, Cleveland, OH

Ara V. Nefian

Senior Scientist
Intelligent Systems Division
Ames Research Center, Moffett Field, CA

Thomas Neylan

Department of Psychiatry
University of California, San Francisco, CA

Michael S. Okun

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Co-Director, University of Florida Movement Disorders Center
National Medical Director, National Parkinson Foundation, Gainesville, FL

Alessandro Olivi

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Director of Neurosurgical Oncology,
Johns Hopkins University School of Medicine, Baltimore, MD

Martin Pera

Professor of Cell & Neurobiology
Director, Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at USC, San Francisco, CA

Elaine Peskind

Department of Psychiatry and Behavioral Sciences
University of Washington School of Medicine, Seattle, WA

Jay J. Pillai

Director of Functional MRI, Neuroradiology Division
Russell H. Morgan Dept. of Radiology & Radiological Science,
Johns Hopkins Univ. School of Medicine, Baltimore, MD

Sujit S. Prabhu

Associate Professor, Department of Neurosurgery, Division of Surgery, The University of Texas MD Anderson Cancer Center, Adjunct Associate Professor, Department of Neurosurgery, Division of Surgery, Baylor College of Medicine, Houston, TX, USA



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PM, Medical Development Director, Congressional Programs Office
Naval Medical Research Center, Silver Spring, MD

Alfredo Quiñones-Hinojosa

Associate Professor of Neurological Surgery and Oncology
Neuroscience and Cellular and Molecular Medicine
Director, Brain Tumor Surgery Program, Johns Hopkins Bayview
Director, Pituitary Surgery Program, Johns Hopkins Hospital
Department of Neurosurgery
Johns Hopkins University, Baltimore, MD

Urs Ribary

Professor and BC LEEF Leadership Chair,
Cognitive Neuroscience in Childhood Health and Development, Di-
rector, Behavioral and Cognitive Neuroscience Institute, Department
Psychology, Simon Fraser University, Department Pediatrics and
Psychiatry, University of British Columbia, Fellow UBC Institute of
Mental Health and Investigator Brain Research Centre,
Simon Fraser University (SFU),
University of British Columbia (UBC),
Child & Family Research Institute, BC Children's Hospital, Down Syn-
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Allyson Rosen

Instructor, Department of Psychiatry and Behavioral Sciences (affilia-
ted), Stanford University

Kate Hammond Rosenbluth

Assistant Researcher, Department of Neurosurgery,
University of California, School of Medicine, San Francisco, CA

Philip N. Sabes

Associate Professor
UCSF Department of Physiology and W.M. Keck Foundation Center
for Integrative Neuroscience,
University of California, San Francisco, CA

Norbert Schuff

Professor of Radiology, UCSF
Senior Scientist, Radiology Service, Member - Center for Imaging of
Neurodegenerative Diseases, SFVAMC

Reinhard W. Schulte

Associate Professor, Translational Research
Dept. of Radiation Medicine,
Loma Linda University Medical Center, Loma Linda, CA

Tom Seyfried

Biology Department, Boston College, Chestnut Hill, MA

Krishna V. Shenoy

Associate Professor
Department of Electrical Engineering, Department of Bioenginee-
ring
James H. Clark Center, Stanford University, Stanford, CA

Mark Shiroishi

Assistant Professor of Neuroradiology
Keck School of Medicine
University of Southern California, Los Angeles, CA

Philip A. Starr

Professor in Residence of Neurological Surgery, Dolores Cakebread
Endowed Chair
Co-Director, Functional Neurosurgery Program
Surgical Director, Parkinson's Disease Research, Education and Care
Center (PADRECC) at San Francisco Veteran's Affairs Medical Center
Department of Neurological Surgery
University of California, San Francisco

Gary K. Steinberg

Bernard and Ronni Lacroute-William Randolph Hearst Professor of
Neurosurgery and the Neurosciences
Director, Stanford Institute for Neuro-Innovation and Translational
Neurosciences
Chairman, Department of Neurosurgery
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Jeffrey P. Sutton

Director, National Space Biomedical Research Institute
Baylor College of Medicine, Houston, TX

Jian Tajbakhsh

Assistant Professor of Surgery
Program Leader Translational Cytoomics
Cedars-Sinai Medical Center, Los Angeles, CA

Bruce J. Tromberg

Professor of Biomedical Engineering, The Henry Samueli School of
Engineering
Professor, School of Medicine
Director, Laser Microbeam and Medical Program, BLI and Medical
Clinic (NIH Center)
Director, Beckman Laser Institute
Past editor-in-chief (1999-2010), Journal of Biomedical Optics

Jack W Tsao

CDR MC USN
Director, Traumatic Brain Injury Programs
US Navy Bureau of Medicine and Surgery
Associate Professor of Neurology and Neuroscience, USUHS

Amir Vokshoor

Neurological Spine Surgeon, Founder of INI,
Minimally Invasive Spinal Instrumentation, Marina del Rey, CA

Duan Xu

Assistant Professor of radiology and biomedical Engineering,
University of California, San Francisco, CA

Paul Weiss

Director of UCLA-California Nano-system Institute
University of California, Los Angeles, CA

Michael W. Weiner

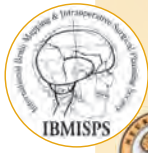
Professor of Medicine, Radiology, Psychiatry, and Neurology
University of California, San Francisco, CA

Anthony T. Yeung

Desert Institute for Spine Care, Phoenix, AZ

John S. Yu

Professor and Vicechair
Director, Brain Tumor Center of Excellence
Cedars- Sinai Medical Center, Los Angeles, CA



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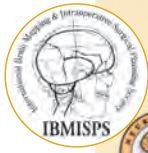
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EVERY 4 SECONDS, A Medtronic product or therapy is helping to improve the life of a patient suffering from a chronic disease. Our mission is to create innovative therapies that help patients do things they never thought possible. We are also thinking beyond products and status quo – to continually find more ways to help people live better, longer.



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AWARDS

BEACON OF COURAGE AND DEDICATION AWARD

The Beacon Award is presented to individuals who have demonstrated extraordinary courage and dedication for increasing awareness about neurological diseases, and for patients and their families who have exceeded expectations in fighting a neurological disorder with unprecedented courage. The Beacon Award identifies remarkable individuals who set the highest standards for increasing awareness of, and fighting, neurological diseases.

Past Award Recipients:

2010 The Honorable Tammy Duckworth
2009 SGM Colin R. Rich
2009 ABC News Anchor Bob Woodruff
2008 Two time Oscar Winner Dustin Hoffman
2007 Behnam Badie
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2004 Jennifer Neale

PIONEER IN MEDICINE

The Pioneer in Medicine Award is presented to individuals who have significantly contributed to the scientific advancement in the fields of medicine and image guided therapy through a multidisciplinary approach. Their groundbreaking contribution has made development of state-of-the-art technology and scientific discovery a reality.

Past Award Recipients:

2010 Drs. Andrew Schwartz, Jonathan Wolpaw and John Donoghue
2009 Drs. Peter McLaren Black and Keith L. Black
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2007 Drs. Arthur W. Toga and John Mazziotta
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2005 Drs. Ferenc Jolesz and Ken Curley
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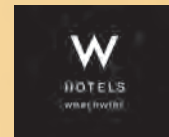
HUMANITARIAN AWARD

Humanitarian Award is given to physicians and scientists who have contributed significantly to survival and quality of life of patients across the Globe. This award given for the first time this year to Drs. Rocco Armonda (US Armed Services for his years of treating severely wounded and injured Soldiers) and Henry Marsh.

**FRIDAY,
JUNE 10TH
7:00 - 10:00PM**

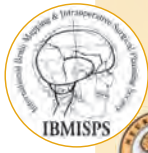
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2011 AWARDS

BEACON OF COURAGE AND DEDICATION AWARD



Minoru Freund

Director of Research NASA Ames

Dr. Minoru M. Freund is Director of the Center for Advanced Aerospace Materials and Devices at the NASA Ames Research Center. Trained as a physicist at the ETH Zürich, Switzerland, he did his PhD work in low-temperature physics, working during this time with three Nobel laureates in superconductivity and nanotechnology. He then joined UC Berkeley as a Post-Doc and plunged into a 10-year career in cosmology, became engaged in a US-Japan space mission for which he built a low-temperature cryostat that held for OVER A DECADE the world record of the lowest sustained temperature achieved in space. After several years at the Japanese Space Agency in Japan and at CalTech, he worked at NASA's Goddard Space Flight Center near Washington DC, and then moved to the Air Force Research Laboratory in Dayton OH, where he built up the Air Force nano-technology portfolio. After he joined the NASA Ames Research Center in the San Francisco Bay Area in California he developed projects for a wide range of nano-material applications including medicine and specifically neuroscience.

Ironically, in late summer of 2009, Mino was diagnosed with a malignant brain tumor. He has put up a stiff fight, has undergone two major surgeries, and is enrolled in an experimental clinical vaccine trial at the UCSF Medical Center. He is now engaged in efforts to broaden NASA's activities in the area of Nano-Bio-Electronics to use the power of nano-technology for solving urgent question in medicine.



Gabrielle Giffords

Member of the U.S. House
of Representatives
from Arizona's 8th district

On November 2, 2010, Gabrielle Giffords was re-elected by the people of Arizona's Eighth Congressional District - a diverse area that covers 9,000 square miles including a 114-mile border with Mexico. For more than ten years, Giffords has dedicated herself to public service as an elected official. A third generation Tucsonan, she represented her hometown in the Arizona Legislature from 2000-2005, where she was the youngest woman ever elected to the Arizona State Senate.

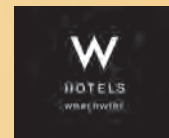
Upon entering Congress, Giffords quickly became a leading champion of border security, energy independence, and the needs of military families and veterans. Consistently ranked as one of the most centrist legislators in Congress, she has been a strong supporter of fiscal responsibility, bipartisanship, and government accountability.

Involving southern Arizonans in shaping policies and strategically solving community problems is the cornerstone of her work. Giffords' inclusive and collaborative approach allows her to bring all viewpoints to the table and the best ideas to Washington.

Before entering public office, Giffords took over her family's tire and automotive business. As the President and Chief Executive Officer of El

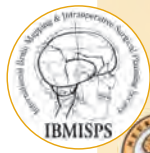
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Campo Tire, Inc, she faced the struggles that many small business owners in Arizona and across the nation face. In Washington, Giffords has worked hard to be a voice for small businesses and a tireless advocate for spending restraint and honest budgeting.

Representing thousands of military families and veterans in southern Arizona, Giffords proudly serves on the House Armed Services Committee and the Subcommittees on Air and Land Forces and Military Readiness. She has worked closely with Army and Air Force officials at Southern Arizona's outstanding installations: Fort Huachuca, Davis-Monthan Air Force Base, and the 162nd Air National Guard. Bringing their interests and concerns to Washington is one of her top priorities.

On the House Science, Space and Technology Committee, Congresswoman Giffords has promoted an agenda of energy independence and solar initiatives in an effort to create good-paying jobs at home and lower energy costs. She is also Vice Chair of the Sustainable Energy and Environment Coalition.

In her district, Giffords launched a Community Solar Energy Initiative to mobilize support and action for the increased use of solar energy. It includes an advisory council of university researchers, business leaders, elected officials, and interested citizens to make recommendations on how solar energy could be advanced in Arizona. This effort also led to the introduction and passage of legislation to encourage research and development and the training of a solar energy installation workforce. Giffords also fought for an eight-year extension of the Investment Tax Credit for commercial and residential solar projects.

Congresswoman Giffords was selected to serve as Ranking Member of the Space and Aeronautics Subcommittee in January 2011, in order to lead the conversation around future space exploration, aviation research, and inspiring the next generation of math and science pioneers.

Combining her work on the Armed Services and Science Committees, Giffords has taken the lead in Congress to promote increased use of renewable energy at military installations throughout the country.

Giffords holds a Master's Degree in Regional Planning from Cornell University and a B.A. from Scripps College where she was awarded a William Fulbright Scholarship to study for a year in Chihuahua, Mexico.

She is married to Navy Captain Mark Kelly, a Navy Pilot and NASA astronaut. Before being assigned to NASA, Kelly flew 39 carrier-based combat missions in Operation Desert Storm. He is also commander of the final launch of the Space Shuttle Endeavour.

Giffords is the only U.S. Representative with an active duty military spouse. She was recognized as the Honorary Military Spouse of the Year for 2011 by Military Spouse magazine.

Congresswoman Giffords was seriously wounded at a Congress on Your Corner event in Northwest Tucson on January 8, 2011. She is currently recovering at the TIRR Hermann Memorial hospital in Houston, Texas.

The office of Congresswoman Giffords handles about 2,700 constituent requests per year – almost four times the average handled by the nation's 435 members of the House of Representatives.

For the latest updates on Congresswoman Giffords and the issues important to Southern Arizona, sign up for her weekly E-newsletter. You can also join the conversation at www.twitter.com/Rep_Giffords and www.facebook.com/GabrielleGiffords.

PIONEER IN MEDICINE AWARD



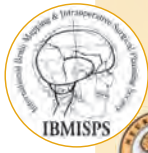
Patrick Soon Shiong

Chairman and CEO
of Healthcare
Transformation Institute

Dr. Soon-Shiong is Chairman of the Chan Soon-Shiong Family Foundation, Chairman and CEO of the Institute for Advanced Health, Chairman and CEO of the Healthcare Transformation Institute and founder of the National Coalition for Health Integration.

Background

Born and bred in South Africa, an ethnic Chinese in the era of apartheid, Dr. Soon-Shiong prevailed against discrimination to qualify as a physician at the age of 23. He and his wife, Michele, also a South African-born Chinese, then emigrated first to Canada and later to the United States in 1980. In 1993, he performed the world's first encapsulated human islet transplant and the first pig to man islet cell transplant in diabetic patients. He invented the nation's first FDA approved protein nanoparticle delivery technology for the treatment



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June 8th, 9th, 10th, 2011

International Brain Mapping and Intraoperative Surgical Planning Society - IBMISPS

of metastatic breast cancer, doubling the response rate in patients. The drug is now approved in over 40 countries, and currently in trials for lung, melanoma, gastric and pancreatic cancer. Dr. Soon-Shiong is a co-inventor of over 50 issued U.S. patents, has published more than 100 scientific papers, and developed and sold two multi-billion dollar pharmaceutical companies, American Pharma Partners (APP) and Abraxis Bioscience (ABII). APP was responsible for the only safe supply of Heparin in the United States in 2008.

Current Work

Since 2006, Dr. Soon-Shiong has turned his attention to transforming healthcare by establishing an integrated health information platform and founded the National Coalition for Health Integration (NCHI) to create a national health network for the secure, national sharing of biomedical information with the goal of improving health for individuals. In partnership with the Arizona State University and the University of Arizona he founded a Healthcare Transformation Institute (HTI), which he dubs a "do tank", whose mission is to promote a paradigm shift in health care in the United States by better integrating the three now separate domains of medical science, health delivery, and healthcare finance. He has also founded the Institute for Advanced Health, which will provide high-speed computing capabilities for human genotyping to target specific cancer treatments, as well as technologies for the better management of chronic disease. In all these endeavors, Dr. Soon-Shiong takes as his personal motto a quotation from Will Mayo, co-founder of the Mayo Clinic, that "the best interest of the patient is the only interest to be considered".

In 2010 Dr. Soon-Shiong became a co-owner of the LA Lakers, purchasing the stake previously owned by Earvin "Magic" Johnson. Also in 2010, in partnership with the LA Business Journal, he founded the "Patrick Soon-Shiong Innovation Awards"; the first winners of these annual awards were six companies from the media, entertainment, engineering and aerospace sectors.

Philanthropy

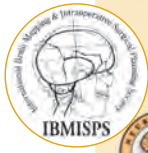
Together with his wife Michele Chan, Dr. Soon-Shiong has founded the Chan Soon-Shiong Family Foundation, which funds health-related research and projects. In 2007 he pledged US \$1 billion to support healthcare transformation and a national health information highway. Among other awards and gifts, the Foundation has given a total of \$135 million to the Saint John's Health Center in Santa Monica, California, and a guaranty of \$100 million to enable the reopening of the Martin Luther King Hospital in South Los Angeles, thereby restoring access to healthcare to a large underserved population. Dr. Soon-Shiong and Ms. Chan are the only Asian Americans so far to have joined the Giving Pledge, by which several of the wealthiest Americans have pledged to give over the majority of their wealth to charitable causes.

Awards

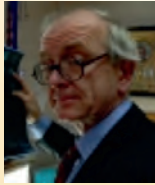
Dr. Soon-Shiong's research has been recognized by national and international awards such as the Association for Academic Surgery Award for Research, the American College of Surgeons Schering Scholar, the Royal College Physicians and Surgeons Research Award, the Peter Kiewit Distinguished Membership in Medicine Award, and the International J.W. Hyatt Award for Service to Mankind. Dr. Soon-Shiong received the 2006 Gilda Club Award for the advancement of cancer medicine and is a recipient of a 2007 Ellis Island Medal of Honor as well as the St. Mary Medical Center Life Achievement Award in 2007 and the St. John's Health Center Caritas Award in 2007. In 2008, he received the Medical Visionary Award from the Pancreatic Cancer Action Network for his work in pancreatic cancer & the Los Angeles County Economic Development Council (LAEDC) Eddy Award in November 2009. The Los Angeles Business Journal recognized him as their 2010 Business Person of the Year, and the National Library of Medicine awarded Dr. Soon-Shiong the Distinguished Medical Science Award. The University of Arizona awarded him an honorary doctorate in December 2010.

Other Positions

Dr. Soon-Shiong is the Executive Director of the UCLA Wireless Health Institute, and Professor of Microbiology, Immunology, Molecular Genetics and Bioengineering at UCLA. He is a fellow of both the American College of Surgeons and the Royal College of Physicians and Surgeons of Canada. He serves on the Board of Directors for the National Institute of Transplantation, the Technology Council for the Center for Cancer Nanotechnology Excellence at Northwestern University, which is part of the National Cancer Institute's (NCI) five-year initiative for nanotechnology in cancer research. He serves on the RAND Health Board of Advisors and the President's Council at RAND, the Board of Trustees for the Saint John's Health Center, the Advisory Board of the California NanoSystems Institute at UCLA, the Advisory Board for the Institute for Technology Advancement (ITA) at UCLA School of Engineering, the Board of Councilors of the USC Viterbi School of Engineering, and the Arizona Commerce Authority Board. He is a founding board member of the Dossia Foundation, a non-profit consortium of large employers (Wal-Mart, AT&T, BP America, Intel, Pitney Bowes, Cardinal Health, Sanofi-Aventis, Applied Materials, and Vanguard) that seek to enhance consumer engagement in their own healthcare through use of personal health records. In 2009, he was appointed by Attorney General Cuomo to the board of FAIR Health, a new not-for-profit entity to facilitate nationwide reform of consumer reimbursement for out of network healthcare charges.



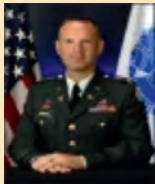
HUMANITARIAN AWARD



Henry Marsh

St. George's Hospital,
London, UK

Henry Marsh is one of the UK's most senior neurosurgeons and is the senior neurosurgeon at St. George's Hospital, one of London's largest hospitals. He is also a Clinical Professor of Neurosurgery at the University of Washington, Seattle and he has had strong links with US neurosurgery for many years. He spends most of his spare time working pro bono with neurosurgical colleagues in countries such as Russia, Azerbaijan, Sudan and especially Ukraine. The recent Emmy Award-winning film *The English Surgeon* focused on his work over the last twenty years in Ukraine. He had originally studied Politics, Philosophy and Economics at Oxford University, graduating with a First (summa cum laude) before turning to medicine. He considers it is a great privilege to be a neurosurgeon – it is work which uniquely combines cutting-edge science and simple human kindness.



Rocco Armonda

Neurosurgery Consortium
at National Naval MEDCEN
and Walter Reed Army MEDCEN

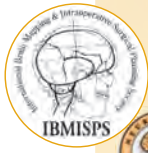
Dr. Rocco Armonda serves as the Director of Cerebrovascular Surgery and Interventional Neuroradiology for the National Capital Neurosurgery Consortium at the National Naval Medical Center and Walter Reed Army Medical Center. He is also an Associate Professor and Division Director for Neurosurgery, Department of Surgery, at the Uniformed Services University of the Health Sciences. His wife Heidi and him enjoy active outdoor sports, camping and competing in triathlons with their children; Michael 3, Emma 7, Madison 10, Gabriella 12 and Rocco's two older girls Adrianna 18 and Michelle 20.

Dr. Armonda earned his undergraduate degree from the United States Military Academy, West Point, N.Y. in 1986, and his medical degree in 1990 from the Uniformed Services University of the Health Sciences, Bethesda, MD. He was inspired to pursue neurosurgery by Dr Malcolm B. Carpenter his professor of neuroanatomy at USUHS in 1986-87. Subsequently, he followed his goal of neurosurgery at Walter Reed Army MEDCEN where he was mentored and strongly influenced by Dr Richard G. Ellenbogen. Through Dr. Ellenbogen's efforts he was granted a fellowship in neurosurgery with Dr. Robert H. Rosenwasser, MD at Thomas Jefferson University. He completed his Neurosurgery Residency in 1997 at Walter Reed Army Medical Center, Washington, DC, and a fellowship from 1997-99 in Cerebrovascular Surgery and Interventional Neuroradiology at Thomas Jefferson University, Philadelphia, PA.

As Commander of the 207th Neurosurgery Team, Dr. Armonda was deployed to Iraq, conducting both military and humanitarian neurosurgical care. During this time he was awarded the Bronze Star for service. He has cared for over 500 combat casualties over the past 10 years, having performed over 1200 procedures for these patients. Additional awards have included the Army Medical Proficiency "A" Designator for excellence in both clinical and academic medicine, as well as the Young Neurosurgeon's Award presented to him by the American Association of Neurological Surgeons in 2005.

Dr. Armonda's focus continues in the area of cerebrovascular disease and neurotrauma with an emphasis on neurocritical care. In the military he has advanced the use of multi-modal monitoring and treatment techniques to patients with neurotrauma and stroke with both invasive and non-invasive monitoring. This includes the application of hypothermia in severe wartime trauma, non-invasive CBF monitoring, and neuroendovascular treatment of delayed traumatic vasospasm, and neurovascular injuries. His seminal work includes the detection and treatment of traumatic cerebral vasospasm, traumatic pseudoaneurysms, decompressive craniotomy for wartime trauma, cranial-facial post-traumatic reconstruction, multimodal AVM treatments, and the design and deployment of the advanced neurointerventional operating room.

Recently his interest has expanded to include the application of nanotechnology designed neuroendovascular stents for the treatment of traumatic intracranial vascular injuries. Through a military-civilian collaboration with Purdue University Dr. Jean-Paul Allaine and Dr Teodoro Tigno at Walter Reed National Military Medical Center, they have begun work on creating neuroendovascular stents with unique properties that allow for specific endoluminal biological healing at the orifice of an aneurysm.



PIONEER IN HEALTHCARE POLICY AWARD



Gabrielle Giffords

Member of the U.S. House
of Representatives
from Arizona's 8th district

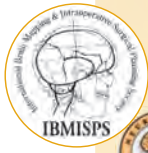
The Pioneer in Healthcare Policy Award is presented to lawmakers who have demonstrated visionary and cross-disciplinary approaches to introducing laws that have contributed to the advancement of science, technology, education, and medicine. They have paved the way to better integration of such advancements in other fields, like medicine and neuroscience. These lawmakers champion better healthcare for all.

2011 Pioneer in Healthcare Policy Crystal Award is presented to the Honorable Congresswoman Giffords for her significant role in supporting science, technology, medical research and healthcare reform.

Past Award Recipients:

2010 Senator Harry Reid
2009 Senator John Kerry
2008 Governor Schwarzenegger
2007 Speaker Nancy Pelosi
2007 Senator Edward Kennedy





BRAIN MAPPING FOUNDATION REMEMBERS

He was unpredictable, instinctive, compelling, sophisticated and driven.

He loved controversy and had a natural tendency for the unconventional.

He designed fashion, jewelry, fragrances, furniture and interior designs for private aircraft and automobiles.

He was Bijan!

Known throughout the world as the most colorful and mysterious designer,

Bijan Pakzad, "Bijan", arranged every element of his company's structure and image. Quality, elegance and simplicity defined the Bijan philosophy. As an international authority on style and a leader in men's fashion design for over 37 years, Bijan stands alone with his exquisite designs. In 1976, Bijan began establishing his global business in Beverly Hills on Rodeo Drive and later in New York and London by designing seasonal collections as well as complete wardrobes and accessories for the wealthy and powerful. Perhaps the most interesting characteristic about Bijan was the way he did things...his designs were always executed with the utmost attention to style and luxury, and "Bijan quality" was always approached with precision. It is for this reason that his clients included Heads of State, Captains of Industry, five United States Presidents, Kings, Emperors, and members of Royal Families. Today, his «by appointment only» showroom on Rodeo Drive is considered the most expensive store in the world.

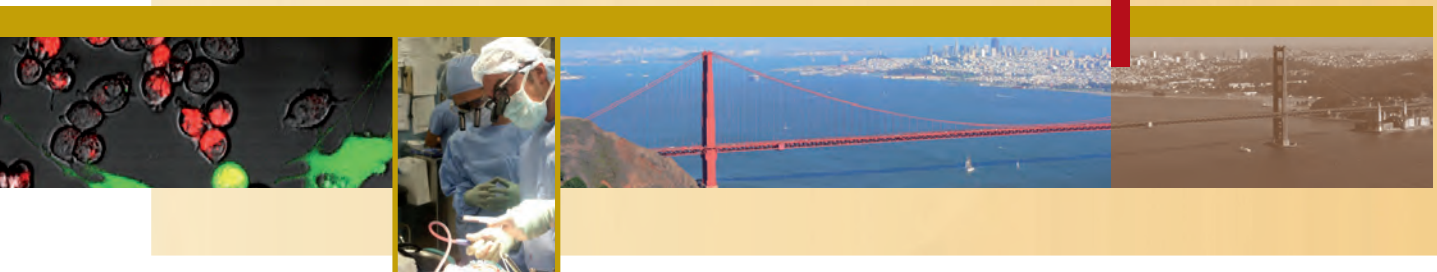
Bijan's legendary lines of ten different perfumes sold and continues to sell successfully worldwide in 66 countries...the most famous being «Classic» and Michael Jordan by Bijan Fragrances achieved the highest sales in the men's cologne industry. During these years, Bijan received six International fragrance awards.

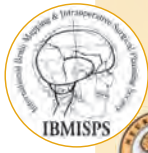
Bijan's exclusive jewelry collection and limited watch collection have been adored by royalty for many years.



Dr. Bijan Pakzad

April 1944 – April 2011





In 2007, Bijan received the Honorary Doctorate Degree in Fine Art and Science from American Liberty University, California; and in 2008, the title of Chairman of the Board of Directors for the University. In May 2010, Otis College of Art and Design honored.

Dr. Bijan Pakzad as Designer of the Year and presented the Design Legend Award to him. In October 2010, Bijan was awarded by the organization, PAAIA (Public Affairs Alliance of Iranian Americans) with the Lifetime Achievement Award and presented with the Governor's Award For Excellence from the Governor of California. During his design career, Bijan was awarded the keys to several prominent cities: Beverly Hills, Auburn, Georgia; Dallas, Texas, and Florence, Italy.



This coming June, 2011, Dr. Bijan Pakzad was to be honored with the Oxford Entrepreneur of the Year Award from Oxford University, London, at a Gala event.

NBC, CNN, BBC, German, Israeli, French television, Japanese, are just a few of the famed stations who have personally interviewed Bijan, as well as many popular magazines have featured cover stories about Bijan.

November 2010 marked another triumph in the career of Bijan, the Designer. Joining with Rolls-Royce Motor Cars, England, Bijan designed a series of Limited Edition Rolls-Royce automobiles bearing his unique design fingerprint. In a very personal note to Bijan, President George H. W. Bush wrote the following, « A class act designer partnered with a class act car !»

Bijan was working with Bugatti Automobiles of France to design 10 Bijan Limited Edition Bugatti automobiles.

Bijan's marketing and brand strategies are cited in many textbooks used by Universities and Fashion Institutes throughout the United States and internationally.

In honor and memory of Dr. Bijan Pakzad's late Father, he and his family established a charity in his Father's name. This NGO is affiliated with UNICEF. For the years 2009-2010, 39 Iranian students were able to attend a University in Iran.

He contributed to the assistance during a number of earthquakes in Iran, including to help build a hospital in the city of Bamm. Bijan continued to make large contributions to help Iranian children with cancer, an organization affiliated with the Princess Yasmine Pahlavi Organization. Over the course of years, he acted as mentor and provided financial support to 29 different families all over the world. Bijan contributed to the continuing study of the Persian Language in California State University in Northridge in order to preserve the Persian language and its culture. Very important to Dr. Bijan, was his support to preserve the Persian language and culture outside of the United States through numerous television broadcast stations, newspapers and magazines.

Dr. Bijan Pakzad insisted that his success in the world was due to his Persian culture! And, his greatest loves were his three children....Daniela, Alexandra, and Nicolas.

«The world said to conform
The world said to settle for less
The world said compromise
And no one will know...
So I made my own world!!»

Bijan

SMALL SIZE. BIG VISION. UNLIMITED FLEXIBILITY.



VectorVision® flex—the small, ergonomic navigation platform with big screen image viewing. Integrated or as stand-alone components, VectorVision flex provides unlimited flexibility in system setup, functionality and expandability.

