

Program at a Glance

Thursday August 23, 2007	Coffee (Forum 5 & 6)						01: Biomedical Signal Processing				07: Molecular and Cellular Biomechanics; Tissue Engineering;								
	Welcome : Donna Hudson, Yong Min Kim, André Dittmar, John Clark, Nigel Lovell & Eric McAdams (Amphitheatre)						02: Biomedical Imaging and Image Processing				08: Bio-robotics; Surgical Planning and Orthopedic Biomechanics								
	Keynote Speaker: David Beebe, Microscale bioengineering inspired by nature: from widgets to cell biology (Amphitheatre) Keynote Speaker: Jean- Claude Healy, What is the added value of Biomedical Engineering technologies? (Amphitheatre)						03: Bioinstrumentation: Sensors; Micro, Nano and Wearable Technologies				09: Therapeutic & Diagnostic Systems, Devices & Technologies; Clinical								
12:00-12:45 Lunch Break													04: Bioinformatics and Computational Biology; Systems Biology; Modeling				10: Healthcare Information Systems; Telemedicine		
CLOSE TO AMPHITHEATRE													05: Cardiovascular and Respiratory Systems Engineering				11: Technology Commercialisation: Education, Industry and Society		
Rooms	LEVEL 1						CLOSE TO AMPHITHEATRE				OPPOSITE SITE OF AMPHITHEATRE								
	Bellecour 1	Bellecour 2	Bellecour 3	Tête d'Or 1	Tête d'Or 2	Tête d'Or Lounge	Gratte Ciel 1	Gratte Ciel 2	Gratte Ciel 3	Gratte Ciel lounge	Rhône 1	Rhône 2	Roseraie						
12:45-14:15	2.1.2 Contrast-Enhanced MRI	5.1.1 Basic Electrophysiology - Cell to Organ	2.2.1 Elastography and Tissue Motion	12.2.4 MS Women in Biomedical Engineering & Health Informatics	4.2.3 Bioinformatics Algorithms I	3.3.1 Chemo/bio Sensing, Materials, Surfaces and Analysis	1.1.1 Time-Frequency & Time-Scale Analysis I	1.2.1 Signal Processing and Physiological System Modeling I	8.1.1 Surgical Robotics I	6.1.1 Neural Nano/Microsystems	9.2.1 Image Guided Therapy I	12.1.2 Student Award Competition I	2.3.1 IS: Recent Advances in Medical Infrared Imaging						
14:30-16:00	2.1.3 Diffusion-Weighted and Diffusion-Tensor	5.1.2 Cardiac Arrhythmias	2.2.2 Cardiovascular Ultrasound Imaging	3.1.7 MS: Ambient Intelligent Microsystems: Contribution of the HEAL THY AIMS Project	4.2.2 Ontologies and Vocabularies for Bioinformatics	3.6.1 Sensor Based Systems for Monitoring I	1.1.2 Time-Frequency & Time-Scale Analysis II	1.2.2 Signal Processing and Physiological System Modeling II	8.1.2 Computer-Assisted Surgery	6.2.1 Neural Recording Systems & Instrumentation I	9.1.1 Therapeutic Devices I	12.1.1 Student Award Competition II	9.1.3 IS: Emerging Technologies Including Emerging Imaging Technologies						
16:00-16:30	Coffee Break (Forum 5 & 6)						Coffee Break (Forum 5 & 6)				Coffee Break (Forum 5 & 6)								
16:30-17:30	Poster Session (Forum 5 & 6)	A: 1.2.9 Signal Processing & Physiological System		B: 2.10.2 Biomedical Image Reconstruction (CT), 2.10.3 Biomedical Image Reconstruction (other modalities), 2.11.6 Segmentation Village I: Variational Methods and Others, 2.12.2 Image Registration II, 2.13.5 Retinal Image Analysis		2.10.3 Biomedical Image Reconstruction (other modalities), 2.11.6 Segmentation Village I: Variational Methods and Others, 2.12.2 Image Registration II, 2.13.5 Retinal Image Analysis		C: 5.1.4 Electrocardiology and Pacing, 5.2.3 Hemodynamics and PWV, 5.3.3 Cardiovascular Models and Ventricular Assist Devices, 5.4.2 Sleep Disorders II, 5.6.2 Respiratory Systems II,				D: 4.1.2 Modeling of Biological Systems II, 4.3.2 Novel Technologies for Bioinformatics II, 4.5.2 Structural Bioinformatics & Computational Proteomics II, 8.1.4 Surgical Robotics II							
17:30-19:00	2.1.4 MR Image Processing and Analysis I	5.1.3 Forward-Inverse Problems	2.2.3 Ultrasonic Signal and Image Processing	10.2.1 Personal Health Systems I	4.4.3 Genetic Regulatory Networks	3.6.2 Sensor Based Systems for Monitoring II	1.1.3 Time-Frequency & Time-Scale Analysis III	1.2.3 Signal Processing and Physiological	8.2.4 Bio-robotics	6.2.3 Advanced Neural Signal Processing Methods	9.1.2 Therapeutic Devices II	12.1.3 Student Award Competition III	3.1.3 IS: Motion Artefact in Wearable Biomedical Sensor						
19:30-23:30	Welcome Dinner (Forum 4 & 5)						Welcome Dinner (Forum 4 & 5)						3.1.4 IS: Gerotechnology						
8:30-10:00	2.1.5 MR Image Processing and Analysis II	5.2.2 Vascular Hemodynamics	2.3.2 Optical Imaging I	10.2.2 Personal Health Systems II	3.2.1 New Transducer Technologies, Methods and Systems	5.1 Wireless Biomedical Sensors, Body Sensor Networks and Telemetric	1.1.4 Time-Frequency & Time-Scale Analysis IV	1.2.4 Signal Processing and Physiological	8.2.1 Human-Robot Interactions I	6.3.1 Neural Stimulation I	9.3.1 Clinical Engineering I	11.3.1 Health Technologies & Private Public Partnerships in Emerging Markets							
10:00-10:30	Coffee Break (Forum 5 & 6)						Coffee Break (Forum 5 & 6)												
10:30-12:00	Poster Session (Forum 5 & 6)	A: 1.1.5 Time-Frequency and Time-Scale Analysis V, 1.3.4 Nonlinear Dynamic Analysis of Biomedical Signals IV			B: 2.1.9 MRI: Novel Applications II, 2.1.10 Imaging Hardware, 2.1.11 MR Image Reconstruction & Processing, 2.1.12 MR Image Processing & Analysis III, 2.2.4 Ultrasonic Image Processing, 2.2.5 Tissue Motion & Vascular Ultrasound, 2.2.6 Ultrasonography: Miscellaneous			C: 3.1.2 Instrumentation and Systems for Diagnosis and Clinical Management II, 3.3.3 Biological and Biochemical Sensors, Materials II, 3.5.2 Wireless Biomedical Sensors, Body Sensor Networks and Telemetric Systems II, 3.6.3 Sensor Based Systems for Monitoring III				D: 6.2.2 Neural Recording Systems and Instrumentation II, 6.2.4 Advanced Neural Signal Processing Methods II, 6.2.6 Modeling and Simulation of Neural Systems II, 6.3.2 Neural Stimulation II - FES, 6.5.3 EEG and EP Analysis II, 6.6.3 Brain-Computer Interfaces III							
12:00-12:45	Lunch Break						Lunch Break												
12:45-14:15	2.1.7 Novel Imaging Methods	5.2.1 Ventricular Mechanics and Coronary Circulation	2.3.3 Optical Imaging II	10.3.1 Telemedicine I	3.3.2 Biological and Biochemical Sensors, Materials I	3.9.3 Integrated Wearable Systems Towards Biomedical Applications I	1.6.1 Adaptive & Parametric Filtering in Biomedical Signals I	1.2.5 Signal Processing & Physiological System Modeling V	8.2.2 Human-Robot Interactions II	6.2.5 Modeling & Simulation of Neural Systems I	9.3.2 Clinical Engineering II	11.3.2 Health Technologies & Private Public Partnerships in Emerging Markets: Example Projects	8.1.3 IS: Capsular Endoscopy						
14:30-16:00	2.1.6 MRI: Novel Applications I	5.3.1 Cardiovascular Models	2.5.1 CT : Sampling and Truncation	10.3.2 Telemedicine II	3.2.2 Optical and Photonics Sensors and Systems	3.1.1 Instrumentation and Systems for Diagnosis and Clinical Management I	1.6.2 Adaptive & Parametric Filtering in Biomedical Signals II	1.2.6 Signal Processing & Physiological System Modeling VI	6.8.2 Robotic Devices for Rehabilitation II	6.1.4 Cultured Neuronal Networks & Neurobotics	9.3.3 Clinical Engineering III	11.1.1 MS: Education for Biomedical Engineering Professionals - Crossing Boundaries between	12.2.1 MS: Innovations & Entrepreneurship in Bioengineering						
16:00-16:30	Coffee Break (Forum 5 & 6)						Coffee Break (Forum 5 & 6)												
16:30-17:30	Poster Session (Forum 5 & 6)	A: 1.4.5 Signal Pattern Classification in Biomedical Signals I, 1.6.3 Adaptive & Parametric Filtering in Biomedical Signals III			B: 2.3.4 Optical & Infrared Imaging, 2.7.2 Neuroimaging (fMRI & MRI), 2.9.2 Methods in Biological Imaging II			C: 9.1.4 Therapeutic Devices III, 9.2.2 Image Guided Therapy II, 9.3.4 Clinical Engineering IV, 9.3.5 Clinical Engineering V, 8.2.3 Human-Robot Interaction III				D: 10.1.6 Health Information Systems and Patient Records III, 10.3.3 Telemedicine III, 10.4.4 Decision Support Systems IV, 10.5.2 Ambient Assisted Living Systems and Solutions II							
17:30-19:00	2.1.8 RF Coil Technology for MRI	5.3.2 Ventricular Assist Devices	2.5.2 X-Ray-Based Imaging Analysis and Applications	10.5.1 Ambient Assisted Living Systems and Solutions	3.8.1 Textile Sensors and Smart Fabrics I	3.1.8 Instrumentation and Systems for Diagnosis and Clinical Management III	1.4.1 Signal Pattern Classification in Biomedical Signals I	1.5.1 PCA and ICA in Biomedical Signals I	6.8.1 Robotic Devices for Rehabilitation I	6.5.1 Sleep Biosignal Analysis: Present State and Future Directions	MS: Publications Forum - Questions for the Editor?	1.2.12 IS: Microvascular Blood Flow with Laser Doppler Flowmetry: Linear and Nonlinear Signal	3.3.7 MS: Biological and Biochemical Sensors: Materials and Analytical Technologies						
19:15-19:45	EMBS Awards Ceremony (Gratte Ciel lounge)						EMBS Awards Ceremony (Gratte Ciel lounge)												
20:00-23:30	Award Banquet (Bocuse)						Award Banquet (Bocuse)												
8:30-10:00	2.4.1 Electrical Impedance Imaging	5.6.1 Respiratory Systems I	2.6.1 Molecular Imaging I	10.4.1 Decision Support Systems I	4.4.1 Expression Profiling and Algorithms I	3.1.9 Sensor-actuator, Closed-Loop Systems	1.4.2 Signal Pattern Classification in Biomedical Signals II	1.2.7 Signal Processing & Physiological System Modeling VII	8.3.1 Orthopaedic & Musculo-Skeletal Biomechanics I	6.5.2 EEG and EP Analysis I	2.1.1 MS: MRI: Recent Advances in Physiological & Metabolic Imaging	6.1.2 IS: Modern Assistive Technologies	11.2.3 MS: Intellectual Property in Medical Devices & Biotechnology						
10:00-10:30	Coffee Break (Forum 5 & 6)						Coffee Break (Forum 5 & 6)												
10:30-12:00	Poster Session (Forum 5 & 6)	A: 2.4.3 Electrical Imaging (Source and Impedance), 2.5.3 X-ray Imaging, 2.6.2 Molecular Imaging II, 2.8.2 Cardiac Imaging II, 2.13.2 Retrieval of Image Content for Medical Diagnosis and Screening			B: 2.4.3 Electrical Imaging (Source and Impedance), 2.5.3 X-ray Imaging, 2.6.2 Molecular Imaging II, 2.8.2 Cardiac Imaging II, 2.13.2 Retrieval of Image Content for Medical Diagnosis and Screening			C: 8.2.3 Transducers, Solid State Sensors and Systems, 4.2.1 Genomics and Computational Biology, 4.4.2 Expression Profiling and Algorithms II, 5.5.4 Heart Rate and Blood Pressure Variability III, 8.3.3 Orthopaedic and Musculo-Skeletal Biomechanics III,				D: 6.6.4 Brain-Computer Interfaces IV, 6.7.2 Neuromodulation II - Neurophysiology, 6.8.3 Robotic Devices for Rehabilitation III, 6.9.1 EMG Applications, 6.10.2 Central Neuromuscular Control, 6.11.2 Locomotion							
12:00-12:45	Lunch Break						Lunch Break												
12:45-14:15	2.4.2 Electrical Source Imaging	5.5.1 Heart Rate and Blood Pressure Variability I	2.11.1 Eye and Breast Image Segmentation	10.4.2 Decision Support Systems II	4.5.1 Structural & Computational	3.7.1 Wearable and Portable Communicative Systems I	1.4.3 Signal Pattern Classification in Biomedical Signals III	1.2.8 Signal Processing & Physiological System Modeling VIII	8.3.2 Orthopaedic & Musculo-Skeletal Biomechanics II	6.6.1 Brain-Computer Interfaces I	7.3.1 Biomaterials & Cell-Biomaterial Interactions I	12.2.2 MS: Working in Bioengineering: Making an Impact	11.2.1 MS: From Idea to Product - Innovation Approaches and Healthcare Market Characteristics						
14:30-16:00	2.7.1 Neuroimaging (fMRI)	5.5.2 Heart Rate and Blood Pressure Variability II	2.11.2 3D organ Segmentation and Modeling	10.4.3 Decision Support Systems III	4.3.1 Novel Technologies for Bioinformatics I	3.7.2 Wearable and Portable Communicative Systems II	1.4.4 Signal Pattern Classification in Biomedical Signals IV	1.2.10 Multivariate & Multimodal Biomedical Signal Processing I	6.10.1 Peripheral Neuromuscular Control	6.6.2 Brain-Computer Interfaces II	7.1.1 Molecular & Cellular Biomechanics I	6.1.3 MS: Advances in Neural Engineering	11.2.2 MS: From Idea to Product - Commercialization Issues Illustrated in an Example						
16:00-16:30	Coffee Break (Forum 5 & 6)						Coffee Break (Forum 5 & 6)												
16:30-17:30	Poster Session (Forum 5 & 6)	A: 1.5.4 PCA and ICA in Biomedical Signals IV		B: 2.11.7 Segmentation Village II: Statistical Methods & Others, 2.13.1 Security, Transmission & Encoding of Medical Images		C: 3.4.3 Implantable & Communicative Sensors, Electrodes, System Integration III, 3.7.3 Wearable & Portable Communicative Systems III		C: 3.8.2 Textile Sensors and Smart Fabrics II, 3.9.2 Sensors & Systems Enabling eHealth, Phealth, mHealth II, 3.9.4 Integrated Wearable Systems Towards Biomedical				D: 6.4.2 Auditory and Visual Neuroprostheses II, 7.1.2 Molecular & Cellular Biomechanics II, 7.2.2 Cellular & Tissue Engineering II, 7.3.2 Biomaterials & Cell-Biomaterial Interactions II, 10.2.3 Personal Health Systems III, 11.1.3 Educational Tools and Degrees in Biomedical Engineering,							
17:30-19:00	2.8.1 Cardiac Imaging	5.4.1 Sleep Disorders I	2.11.3 Image Segmentation I	12.2.3 MS: Biomedical Engineering and Society	3.3.6 Technologies & Systems for In Vitro Analysis & Detection	3.4.1 Implantable & Communicative Sensors, Electrodes, System Integration I	1.3.1 Nonlinear Dynamic Analysis of Biomedical Signals I	1.2.11 Signal Processing in Proteomics and Biological Data	6.9.2 Myo-Electric Control of Prostheses	6.1.1.1 Control of Posture and Balance	10.1.3 IS: Challenges and Business Models for Personal Health Systems	10.1.1 MS: Improving Outcomes with Interoperable eHRs & Secure Global Health	10.1.2 MS: Laws, Standards and Taxonomies						
19:15-20:15	Gold Reception (Hall Bellecour)						Gold Reception (Hall Bellecour)												
8:30-10:00	2.9.1 Methods in Biological Imaging I	4.1.1 Modeling of Biological Systems I	2.11.5 Fuzzy and Statistical Segmentation	10.1.4 Health Information Systems and Patient Records I	3.3.5 Microfluidic Techniques and Systems	3.9.1 Sensors & Systems Enabling eHealth, pHealth, mHealth I	1.3.2 Nonlinear Dynamic Analysis of Biomedical Signals II	1.5.2 PCA and ICA in Biomedical Signals II	2.12.1 Image Registration I	6.4.1 Auditory and Visual Neuroprostheses I	7.2.1 Cellular and Tissue Engineering I	3.1.6 MS: Micro-Nano-Bio Convergence Systems (MNBs): EC-Funded Group of Projects	2.13.3 IS: Retinal Image Analysis I						
10:00-10:30	Coffee Break (Hall Bellecour)						Coffee Break (Hall Bellecour)												
10:30-12:00	2.10.1 Biomedical Image Reconstruction	4.3.3 Modeling and Computational Biology with Clinical	2.11.4 Detection and Classification	10.1.5 Health Information Systems and Patient Records II	3.3.4 Nanomedicine, Bio-Nano Structures, Drug Delivery	3.4.2 Implantable & Communicative Sensors, Electrodes, System Integration	1.3.3 Nonlinear Dynamic Analysis of Biomedical Signals III	1.5.3 PCA and ICA in Biomedical Signals III	5.5.3 MS: Heart-Rate Variability in Extreme Environments	6.7.1 Neurostimulation I - Brain Stimulation	Coffee Break (Foyer Roseraie)								
12:00	End of Conference						End of Conference												
12:00	End of Conference						End of Conference												

MS: MiniSymposium IS: Invited Session