刘德培（中国医学科学院）
Depei Liu
Chairman of WCCBME 2004, Beijing
President, Chinese Society of Biomedical Engineering (CSBME)
President, Chinese Academy of Medical Sciences (CAMS)
Peking Union Medical Collage (PUMC)



## Dear Colleagues:

The Chinese Society of Biomedical Engineering (CSBME), the Chinese Academy of Medical Sciences (CAMS), and the Peking Union of Medical Collage (PUMC) have the great honor to organize the 2nd World Congress for Chinese Biomedical Engineers (WCCBME),which has been planned to be hold at Jiu Hua Spa & Resort, Bejing from September 27 to September 29, 2004,at the invitation of the Steering Committee of the World Association for Chinese Biomedical Engineers.

We had a very successful WCCBME meeting on December 11-14, 2002 in Taipei, which brought together for the very first time a great many Chinese biomedical engineers from all corners of the world to share their experiences and to exchange views in a broad scale on the future development of biomedical engineering. The WCCBME 2004 Beijing will continue to offer such a forum.

Topics to be presented in this congress will cover: Biomechanics, Biomaterials & Nanotechnology, Artificial Organs, Tissue Engineering, Medical Imaging and Therapeutic Device, Cellular and Molecular Engineering, Targeted Therapeutic Techniques, Bioinstrumentation & Signal Processing, Medical Information & Digital Medicine, Rehabilitation, Behavior Medicine, Biosensors & Gene Chips, Pharmaceutical Sciences and Engineering, Chinese Herb Medicine Engineering, Drug Release, Mechanobiology, and Neuromuscular Control, etc..

Participants attending to this congress include young and experienced biomedical engineers, physicians, researchers working in research institutions, universities and hospitals, medical device manufacturers, as well as students interested in the research and clinical application of biomedical engineering.

WCCBME 2004 will be a memorable event for our Chinese colleagues and friends from all over the world to establish friendship, to promote academic exchanges at an international level, and to promote the interests of Chinese biomedical engineers. On behalf of the Organizing Committee of WCCBME 2004, I take great honor to warmly welcome you and your colleagues to attend the Congress. The success of WCCBME depends very much on the many helps and supports from our Chinese friends both abroad and at home. I look forward to seeing you in Beijing this September.

# WCCBME 2004 会议须知

一、大会报告设在九华山庄报告厅（即电影院）（位于康乐宫东侧）；分会场设在九华山庄九华大饭店（15区）2层，详见该层平面图；

二、各位代表一律凭代表证进出各会场；

三、早、午、晚及宴会均在九华大饭店宴府餐厅；

四、会议中遇到问题请随时与会务组联系。



## Conference program

| | 26 Sep | 27 Sep | 28 Sep | 29 Sep | 30 Sep |
|---|---|---|---|---|---|
| 07:00~07:30 | Registration | **Breakfast** | **Breakfast** | **Breakfast** | Departure |
| 07:30~08:30 | | | **Plenary Lecture**<br>Room: NO.50~51 | **Plenary Lecture**<br>Room: NO.50~51 | |
| 08:30~09:15 | | **Opening Ceremony**<br>Venue: Cinema | **Sessions**<br>Room No.50 **Track2**<br>Room No.51 **Track6**<br>Room No.65 **Track4**<br>Room No.66 **Track5**<br>Room No.67 **Track7**<br>Room No.68 **Track10**<br>Room No.69 **Track9** | **Sessions**<br>Room No.50 **Track2**<br>Room No.51 **Track1**<br>Room No.65 **Track4**<br>Room No.66 **Track5**<br>Room No.67 **Track11**<br>Room No.68 **Track10**<br>Room No.69 **Track9** | |
| 09:15~12:30 | | **Plenary Lecture**<br>Venue: Cinema | | | |
| 12:30~13:30 | | **Lunch** | **Lunch** | **Lunch** | |
| 13:30~14:30 | | **Plenary Lecture**<br>Room: NO.50~51 | **WACBE General Assembly**<br>Room: NO.50~51 | **Plenary Lecture**<br>Room: NO.50~51 | |
| 14:30~16:30 | | **Sessions**<br>Room No.50 **Track3**<br>Room No.51 **Track1**<br>Room No.65 **Track4**<br>Room No.66 **Track5**<br>Room No.67 **Track7**<br>Room No.68 **Track8**<br>Room No.69 **Track9** | **Plenary Lecture**<br>Room: NO.50~51 | **Sessions**<br>Room No.50 **Track2**<br>Room No.51 **Track6**<br>Room No.65 **Track4**<br>Room No.66 **Track5** | |
| 16:30~18:30 | | | **Meet-the-Masters**<br>Room No.50-51 | Room No.67 **Track11**<br>Room No.68 **Track10**<br>Room No.69 **Track12** | |
| 18:30~21:30 | Steering Committee Meeting | **Reception**<br>Venue:Yanfu Restaurant | **Dinner** | **Banquet**<br>Venue: Yanfu Restaurant | |
| 19:00~21:00 | | | | | |

# Conference program

*Beijing China, September 27~29, 2004*

## Monday September 27

**08:30~09:15 Opening Ceremony**

*Chair: Yimin Hu, Cancer Hospital, Chinese Academy of Medical Sciences, Beijing, China*

*Venue: Cinema*

**Welcome remark** *Depei Liu,Chinese Academy of Medical Sciences,Beijing,China*
*Savio Woo, University of Pittsburgh, USA*

**09:15~12:30 Plenary Lecture**

*Chair: Ned Hwang,National Health Research Institutes,Taiwan,China*
*Mengsun Yu,Air Force Aviation Medicine Institute,Beijing,China*

*Venue: Cinema*

**09:15~10:15 An Ideal Biomedical Engineer in the 21st Century**
*H.K.Chang, City University of HongKong, Hong Kong, China*

**10:15~10:30 Tea Break**

**10:30~11:30 Frontiers of Ligament and Tendon Research:Opportunities for Biomedical Engineers**
*Savio Woo, University of Pittsburgh, USA*

**11:30~12:30 Tissue Engineering:From Animal Experiment to Clinical Application**
*Yilin Cao,Shanghai Second Medical University,Shanghai,China*

**12:30~13:30 Lunch**

*Dining room: Yanfu Restaurant, 15th District*

**13:30~14:30 Plenary Lecture**

*Chair: Zulai Tao, Institute of Mechanics, Chinese Academy of Sciences, Bejing,China*
*Arthur F.T. Jockey Club Rehabilitation Engineering Center, The Hong Kong Polytechnic University,Hong Kong, China*

*Venue:Meeting room No.50-51, 15th District*

**13:30~14:30 Mechanical Interaction between Endothelial Cell and Flow**
*Xiong Wang, CNRS/Nancy University, France*

**14:30~18:30 Sessions**

**Track1: Biomechanics**

*Venue:Meeting room No.51, 15th District*



Chair **(14:30~16:00 )**
*Yubo Fan, Sichuan University,Sichuan,China*
*Ming Zhang, Jockey Club Rehabilitation Engineering Centre, The Hong Kong Polytechnic University, Hong Kong, China*

**14:30~15:00 *Osteocyte-Osteoblast Interaction in Mechanotransduction**
*X. Edward Guo, Columbia University, USA*

**15:00~15:30 *Research Grant,Scientific Manuscript,and Congress Abstract Preparation & Presentation**
*Edmund Y.S. Chao, Johns Hopkins University, USA*

**15:30~16:00 *Micro-FE Modeling to Predict Continuum Level Trabecular Mechanical Behavior: Effect of Microstructure and Material Properties**
*Yixian Qin, Stony Brook University, USA*

**16:00~16:10 Tea Break**

Chair **(16:10~18:30 )**
*Mian Long, Institute of Mechanics, Chinese Academy of Sciences,Beijing, China*
*X. Edward Guo, Columbia University, New York City, USA*

**16:10~16:20 Parametric Analysis of the Stress Distribution on the Interface between Articular Cartilage and Sub-chondral Bone**
*Hung-Wen Wei*

**16:20~16:30 Strain Field of Vertebral Body of Two-Motion-Segment Model Under Combined Compression and Sagittal Bending Moment**
*Jaw-Lin Wang*

**16:30~16:40 Study on Biomechanics of Patell of Femoral Joint Base on a Two-Dimensional Model of Knee Joint in Sagittal Plane**
*Yujue He*

**16:40~16:50 Effects of Shear Stress on IL-8 Expression and Signal Transduction in Endothelial Cells**
*Huaiqing Chen*

**16:50~17:00 Structured Model and Investigational Setup for Biomechanics of Peripheral Nerves**
*Rung-Jian Chen*

**17:00~17:10 Bending Micro Samples of Bone Under The Microscope**
*Honggang Zhong*

**17:10~17:20 The Effect of Mechanical Strain on Integrin á2、â1、â3 on the membrane of Osteoblast from 6 old-months Osteoporotic Rats**
*Liang Li*

**17:20~17:30 Deformation Mechanism of an Adherent Leukocyte under Steady Shear Flow**
*Xiaoheng Liu*

**17:30~17:40 Treatment of Osteoarthritis by Reduction Fixator of Fracture**

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| | *He Meng* |
| **17:40~17:50** | **Mechanical Properties of the Sclera before and after Post Sclera Reinforcement-the Limitation of Uni-axial Tension Test**<br>*Xuefeng Zhang* |
| **17:50~18:00** | **Shear Stress Induces Expression and Phosphorylation of Vasp in HUVECs**<br>*Lei Wei* |
| **18:00~18:10** | **Study of Stress Induced Resistance in Plants**<br>*Hucheng Zhao* |
| **18:10~18:20** | **Effects of Mechanical Strain on the Expression of ODF and ICAM-1 by Osteoblasts Differentiated from rBMSCs**<br>*Jun Wang* |
| **18:20~18:30** | **Shear Stress-induced VASP Regulation and Actin Remodelling in Endothelial Cells**<br>*Ke Li* |

## Track3: Artificial Organs

*Venue:Meeting room No.50, 15th District*

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|---|---|
| Chair | *Zhi Du, Tianjin Third central Hospital,Tianjin,China*<br>*Xiaoming Guo, Baxter Company, USA* |
| **14:30~15:00** | ***Dynamics and hemodynamics of coronary stenting**<br>*Ned Hwang, National Health Research Institutes, Taiwan, China* |
| **15:00~15:30** | ***The Development of Bioartificial Cells**<br>*Zhi Du, Tianjin Third central Hospital,Tianjin,China* |
| **15:30~16:00** | ***The Development of Bioartificial Dura Mater**<br>*Xiaoming Guo, Baxter Company, USA* |
| **16:00~16:30** | ***Experiment Study and Clinical Application of Bioartificial Liver**<br>*Zhongping Duan, Beijing Youan hospital, Capital University of Medical Sciences, Beijing,China* |
| **16:30~17:00** | ***The Development of Artificial Kidney**<br>*Hanqing Gu, The second hospital, Tianjin medical university,Tianjin,China* |
| **17:00~17:10** | **Tea Break** |
| **17:10~17:20** | **The New Generation Ventricular Assist Device: Industrial Status and Needs for Biomechanical Research**<br>*Chen Chen* |
| **17:20~17:30** | **A novel Method for Creating a Two-dimensional Parameterized Finite Element Model of the Human Femur with Matching Artificial Hip Joint Based on X-Ray Image** |



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| | *Kai Tao* |
| **17:30~17:40** | **The Closing Behavior of a Bileaflet Heart Valve Prosthesis: Assessment by the Impact Force Method**<br>*J S Liu* |
| **17:40~17:50** | **A Original Experimental Platform for Bioartificial Liver Support System**<br>*Hongshen Xiang* |
| **17:50~18:00** | **DNA-loaded Polyethersulfone Porous Beads and its Functional Utilization for Endocrine Disruptor Removal**<br>*Changsheng Zhao* |
| **18:00~18:10** | **Development of Compact Paracorporeal Right Heart and Lung Assistant Device (RH&LAD) for Total Right Heart and Respiratory Support**<br>*D Wang* |
| **18:10~18:20** | **Development of Implantable Artificial Lung Powered by Right Ventricule**<br>*Dongfang Wang* |
| **18:20~18:30** | **Use High Voltage Electrostatic Field to Control the Size of the Hepatocytes Microencapsulation in artificial liver system**<br>*Zhou Yi* |

## Track4: Tissue Engineering

*Venue:Meeting room No.65, 15th District*

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|---|---|
| Chair | *Yilin Cao, Shanghai Second Medical University, Shanghai, China*<br>*Peter X Ma, University of Michigan, USA*<br>*Guoping Chen, National Institute for Materials Science, Japan* |
| **14:30~14:47** | **Stem Cell Plasticity: Multilineage Development of Adult Stem Cells**<br>*Xuetao Pei* |
| **14:47~15:04** | **Establishment of Telomerase Immortalized Human Neural Progenitor Cell Line and Study on the Application**<br>*Lingsong Li* |
| **15:04~15:20** | **Discussion** |
| **15:20~15:37** | **Biology and Application of Blood Stem Cells in Non-hematopoietic Diseases**<br>*Zhongchao Han* |
| **15:37~15:54** | **Identification of Postembryonic Pluripotent Stem Cells from Various Human Fetal Tissues and with Similar Characteristics**<br>*Chunhua Zhao* |
| **15:54~16:10** | **Related Research of Stem Cells in Tissue Engineering**<br>*Wei Liu* |

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| 16:10~16:30 | **Discussion** |
| 16:30~16:50 | **Tea Break** |
| 16:50~17:07 | **Biomimetic Strategy in Tissue Engineering Scaffolds**<br>*Peter X Ma* |
| 17:07~17:24 | **Biodegradable Polymer for Tissue Engineering Use**<br>*Shenguo Wang* |
| 17:24~17:40 | **Discussion** |
| 17:40~17:57 | **Introduction to Standard Development of Tissue Engineered Medical Products**<br>*Tingfei Xi* |
| 17:57~18:14 | **Synthesis, Processing and Modification of novel Biomaterials**<br>*Ping Hu* |
| 18:14~18:30 | **Discussion** |

## Track5: Medical Imaging

*Venue:Meeting room No.66, 15th District*

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|---|---|
| Chair | *Quanlu Zheng, Neusoft Group,Shenyang,China*<br>*Xiaoping Hu, Emory University and Georgia Institute of Technology, USA* |
| 14:30~14:50 | ***New Developments in Functional Magnetic Resonance Imaging**<br>*Xiaoping Hu, Emory University and Georgia Institute of Technology, USA* |
| 14:50~15:10 | ***Explore Brain Structures and Functions with iMQC MRI**<br>*Jianhui Zhong, University of Rochester, USA* |
| 15:10~15:30 | ***4D Magnetic Resonance Angiography**<br>*Yi Wang, Weill Medical College of Cornell University, USA* |
| 15:30~15:50 | ***Neurovascular Compartment Based Analysis of Event-Related fMRI Signal**<br>*Allen W.Song, Duke University, USA* |
| 15:50~16:10 | ***Cone Beam CT Imaging**<br>*Ruola Ning, University of Rochester* |
| 16:10~16:30 | ***SPECT Cameras: from Yesterday to Tomorrow**<br>*GengSheng L. Zeng, University of Utah, USA* |
| 16:30~16:45 | **Tea Break** |
| 16:45~17:05 | ***Methods for Phase Correction of Magnetic Resonance Images**<br>*Jingfei Ma, University of Texas, USA* |
| 17:05~17:25 | ***Signal Domain Analysis of Diffusion Anisotropy without Computing the Diffusion Tensor**<br>*Xiaohong J.Zhou, Medical Centre, University of Illinois, USA* |
| 17:25~17:45 | ***Magnetic Resonance Imaging of Tissue Perfusion by Arterial Spin Labeling: Methodology and Application**<br>*Weiguo Zhang* |
| 17:45~17:05 | ***RF Coil for Parallel MRI and Ultra-High Field**<br>*Gary X Shen, The University of Hong Kong,Hong Kong,China* |
| 18:05~18:25 | ***Innovations in High Frequency Ultrasonic Transducers and Arrays**<br>*K.Kirk Shung, University of Southern California,USA* |

## Track7: Targeted treatment technique

*Venue:Meeting room No.67, 15th District*

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|---|---|
| Chair | *Jiren Zhang, The first military medical University,Guangzhou,China*<br>*Augustine Y. Cheung,Ceision Corporation,Columbia,Maryland,U.S.A*<br>*Zhongzhu Zhang, Beijing Zhongkanglian Medical Equipment Company Ltd.* |
| 14:30~15:00 | ***Progress of Cancer Targeted Therapy Technology**<br>*Jiren Zhang, The first military medical University, Guangzhou, China* |
| 15:00~15:30 | ***Heat Activated Drug and Gene Delivery for Targeted Treatment of Cancer**<br>*Augustine Y. Cheung,Ceision Corporation,Columbia,Maryland,U.S.A* |
| 15:30~16:00 | **Tea break** |
| 16:00~16:25 | ***Application of Photodynamic Therapy in Clinical Work**<br>*Duanqi Liu, Oncology department of Beijing army general hospital, Bejing, China* |
| 16:25~16:50 | ***Advantages on the Stem Cell Implantation of Solid Tumors**<br>*Jun Ren, Beijing Cancer hospital, Peking University, Beijing, China* |
| 16:50~17:15 | ***Targeted Cancer Therapy by Hyperthermia**<br>*Baorui Liu, Drum Tower Hospital, Nanjing University, Nanjing, China* |
| 17:15~17:40 | ***Frontiers in Targeting Agents for the Treatment of Tumors**<br>*Hongwu Wang, China Coal & Mining General Hospital, Beijing, China* |
| 17:40~18:05 | *** Progress on Targeted Radiation Therapy- Body Gamma Knife**<br>*Tingyi Xia, Beijing* Air Force General Hospital*, Beijing, China* |
| 18:05~18:30 | ***New strategy for treatment of prostate cancer**<br>*Kaijun Wu, The first affiliated hospital of Guangzhou medical college, Guangzhou, China* |

## Track8: Biosensors & Bio Mems

*Venue:Meeting room No.68, 15th District*

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|---|---|
| Chair | *Ning Gu, Southeast University,China*<br>*Gang Jin, Institute of Mechanics, Chinese Academy of Sciences,Beijing,China* |
| 14:30~14:55 | ***Protein Chip Biosensor based on Imaging Ellipsometry for Protein Analysis**<br>*Gang Jin, Institute of Mechanics, Chinese Academy of Sciences,Beijing,China* |

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| **14:55~15:20** | ***Olfactory and Taste Biosensor and Its Applications**<br>*Ping Wang, Zhejiang University,Zhejiang,China* |
| **15:20~15:35** | **A NEMS Approach to Specific and Sensitive DNA/protein Biomarker Sensors for Early Detection of Oral Cancer in Raw Saliva**<br>*Winny Tan* |
| **15:35~15:50** | **Identification of Urinary Pathogens with Species-specific 16s rDNA Probes under Rapid Detection Time at Ambient Temperature for the Development of MEMs-based Urinary Pathogen DNA Biosensor**<br>*Chien-Pin Sun* |
| **15:50~16:05** | **A Novel Neuroprosthesis by MEMS Technology**<br>*Ming-Shaung Ju* |
| **16:05~16:20** | **SPR Biochip and Detection System for Tuberculosis Bacillus**<br>*Chii-Wann Lin* |
| **16:20~16:25** | **Tea break** |
| **16:25~16:50** | ***The Amperometric Biosensors Using Thin Film Technology**<br>*Xinxia Cai, Institute of Electronics, Chinese Academy of Sciences,Beijing,China* |
| **16:50~17:15** | ***Study of Biomolecular Assembly and Functional Nanostructure for Realization of Nanobiosensors**<br>*Ning Gu, Southeast University,Nanjing,China* |
| **17:15~17:30** | **Hand Held Multichannel Detector for Biosensors**<br>*Xianbo Luo* |
| **17:30~17:45** | **Surface Modification of Bio-MEMS Micro-device with Conductive Polymer**<br>*Chii-Wann Lin* |
| **17:45~18:00** | **Magnetic Nano-array Applied in Bio-separation**<br>*Jianfei Sun* |
| **18:00~18:15** | **Electrochemical Study on Film-Entrapped Proteins and Its Application to Third-Generation Biosensors**<br>*Genxi Li* |
| **18:15~18:30** | **Polymer-based Microfluidic PCR Biochip and its Laser Micromachining Technology**<br>*Tao Chen* |

## Track9: Bioinstrumentation & Signal Processing

*Venue:Meeting room No.69, 15th District*

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|---|---|
| Chair | *Bin He, University of Minnesota, USA*<br>*Chongxun Zheng, Xi'an Jiaotong University,Shanxi,China* |
| **14:30~15:00** | ***Electrophysiological Neuroimaging**<br>*Bin He, University of Minnesota, USA* |
| **15:00~15:30** | ***Nonlinear Analysis Techniques of EEG and Their Applications to Anesthesia Depth Monitoring**<br>*Chongxun Zheng, Xi'an Jiaotong University,Shanxi,China* |
| **15:30~15:42** | **A System for Epidural EEG Data Acquisition from a Rat Animal Model**<br>*Xiaorong Gao* |
| **15:42~15:54** | **Analysis of the Distribution of Induced Electric Fields Using the Real Animal's Head Model During Transcranial Magnetic Stimulation**<br>*Jian-Bin Zheng* |
| **15:54~16:06** | **Phase Synchronization Clustering Analysis and its Application to Enhancing Three Dimensional Source Estimation from EEGs**<br>*Junpeng Zhang* |
| **16:06~16:18** | **A New Mathematical Model of Uterine EMG**<br>*Wei Jiang* |
| **16:18~16:30** | **Epicardium Mapping for Atrial Fibrillation**<br>*CUI-WEI YANG* |
| **16:30~16.45** | **Tea break** |
| **16:45~17:15** | ***Signal Processing Methods in EEG-based Brain-computer Interfaces**<br>*Shangkai Gao, Tsinghua University,Beijing,China* |
| **17:15~17:27** | **Electrical Impedance Scanning(EIS)-A new Diagnostic Method of Breast Cancer Detection: Systematic Implementation and Preliminary Experiment Results**<br>*Feng Fu* |
| **17:27~17:39** | **Study of Biological Tissues Resistivity in vivo and in vitro at the Frequency Range from 1Hz to 1MHz**<br>*Xin Lin* |
| **17:39~17:51** | **Application Prospect of Non- intrusive Sleep Monitor**<br>*Jun Yang* |
| **17:51~18:03** | **Personal Identification Using Time-Domain Characteristics of Microvessel Blood Flow Signals**<br>*Pin-Wane Wang* |
| **18:03~18:15** | **The application of the Fuzzy Arithmetic in Individualized Nutritional Assessment**<br>*Ping Wang* |
| **18:15~18:27** | **A New Time-varying Method Applied to Low Back Pain Evaluation**<br>*Yuzhen Cao* |
| **19:00~21:00** | **Reception**<br>*Chair:Yimin Hu,Cancer Hospital,Chinese Academy of Medical Sciences,Beijing,China*<br>*Dining room: Yanfu Restaurant, 15th District* |

## Tuesday September 28

**07:30~08:30 Plenary Lecture**

*Chair: Duchun Tao, Anke High-tech Co. Ltd.Shenzhen, China*
*Xiaoping Hu, Emory University and Georgia Institute of Technology*

*Venue:Meeting room No.50-51, 15th District*

**07:30~08:30 Research and development of 1st 8-slice CT scanner in China**
*Quanlu Zheng, Neusoft Group,Shenyang,China*

**08:30~12:30 Sessions**

### Track2: Biomaterials and Nanotechnology

*Venue:Meeting room No.50, 15th District*

Chair **(08:30~10:45)**
*Tingfei Xi, National Institute for the Control of Pharmaceutical & Biological Products, Beijing,China*
*Min Wang, The University of Hong Kong,Hong Kong,China*

**08:30~09:00 *Molecular Biocompatibility of Biomaterials**
*L.Lee Chou, Boston University, USA*

**09:00~09:30 *Biomedical Materials and Delivery of Biological Therapeutic Agents**
*Tuo Jin, Shanghai Jiao Tong University,Shanghai,China*

**09:30~09:42 Surface Modification of Polycarbonateurethane for Promotion of Cell Adhesion and Growth**
*Jiehua li*

**09:42~09:54 Surface Modification of Biomedical NiTi alloy by Diamond-like Carbon Coating**
*Y. F. Zheng*

**09:55~10:06 Surface Modification of Polystyrene Microtitre Plate Used for Immuno-molecules Immobilization and AFM Characterization**
*Wei Yu*

**10:06-10:18 Surface Morphology and Ni Release of the TiNi Alloys Coated with Tantalum**
*Y. Cheng*

**10:18-10:30 Experimental Study of Recovery Force of Surface-Modified TiNi Memory Alloy Rod**
*Aiyuan Wang*

**10:30-10:45 Tea Break**

Chair **(10:45~12:30)**
*Xiaojun Zhao, Massachusetts Institute of Technology, USA*
*Zeng-Guo Feng, Beijing Institute of Technology,Beijing,China*



**10:45~11:15 *Biomaterials: Status in quo and Future Development**
*Tingfei Xi, National Institute of Control for Pharmaceutical and Biological Products,Beijing,China*

**11:15~11:27 Fabrication of â-TCP Bioceramic Scaffolds with Controlled Microstructure based on PR and Culture in vitro**
*Xiang Li*

**11:27~11:39 In Vitro Study of Calcium Polyphosphate as Inorganic Polymeric Biomaterials for Bone Tissue Engineering**
*Kai Qiu*

**11:39~11:51 Bioactive Glass: Mechanisms of Osteostimulation**
*Jipin Zhong*

**11:51~12:03 Electrospinning of Chitosan/poly(vinyl alcohol) in an Aqueous Acetic Acid Solution**
*Y. Y. Zhang*

**12:03~12:15 Immobilization of Cellulase in PVA Ultrafine Fibers by Electrospinning**
*L. L. Wu*

**12:15~12:27 Aterial Saccular Aneurysm Induction on the theory of biomaterial's Mechanical biocompatibility: A new animal model**
*Zhicheng Liu*

### Track4: Tissue Engineering

*Venue:Meeting room No.65, 15th District*

Chair *Yilin Cao, Shanghai Second Medical University,Shanghai, China*
*Peter X Ma, University of Michigan, USA*
*Guoping Chen, National Institute for Materials Science, Japan*

**08:30~08:47 Study on bone tissue engineering**
*Tianqiu Mao*

**08:47~09:04 Strategy of Tissue Engineered Bone Construction**
*Guoxian Pei*

**09:04~09:20 Discussion**

**09:20~09:37 Application of Biodegradable Hybrid Polymer Scaffold for Cartilage and Osteochondral Tissue Engineering**
*Guoping Chen*

**09:37~09:54 The Role of Interstitial Fluid Flow Regulated by Dynamic Hydraulic Pressure in Bone Adaptation and Remodeling**
*Yixian Qin*

**09:54~10:10 Related Researches of Constructing Tissue Engineered Cartilage using Adult**

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| | **Stem Cells and Biodegradable Polymers**<br>*Guangdong Zhou* |
| **10:10~10:30** | **Discussion** |
| **10:30~10:50** | **Tea Break** |
| **10:50~11:07** | **Osteogenic Differentiation and Osteogenesis of Mesenchymal Stem Cells**<br>*Jianzhong Xu* |
| **11:07~11:24** | **Advances in Bone Engineering Research**<br>*Lei Cui* |
| **11:24~11:40** | **Discussion** |
| **11:40~11:57** | **Investigation of Macroporous Bioactive Ceramics as Bone Tissue Engineering Scaffolds**<br>*Jiang Chang* |
| **11:57~12:14** | **Tissue Engineering Materials: Preshaping and Injectable**<br>*Jiandong Ding* |
| **12:14~12:30** | **Discussion** |

## Track5: Medical Imaging

*Venue:Meeting room No.66, 15th District*

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|---|---|
| Chair | *Quanlu Zheng, Neusoft Group, China*<br>*Xiaoping Hu, Emory University and Georgia Institute of Technology, USA* |
| **08:30~08:42** | **High frequency ultrasonic Imaging**<br>*K.Kirk Shung* |
| **08:42~08:54** | **Brain MR Image Segmentation Using Fuzzy Clustering with Spatial Constraints Based on Markov Random Field Theory**<br>*Yanqiu Feng* |
| **08:54~09:06** | **Whitney Element Method for 3D Magnetic Induction Tomography**<br>*Guoqiang Liu* |
| **09:06~09:18** | **The Hardware System of Magnetic Resonance Impedance Tomography (MR-EIT)**<br>*Yongbo He* |
| **09:18~09:30** | **Research on Image Segmentation of the Heart Slices for 3D Reconstruction and Visualization**<br>*Fang Liu* |
| **09:30~09:42** | **A Flexible Scatter Correction Algorithm with the Scatter Function Based on Experiment**<br>*Penglin Yang* |
| **09:42~09:54** | **The Correlation study of Fluorodeoxyglucose Positron Emission Tomography and Serum VEGF Expression in Non-small Cell Lung Cancer**<br>*Xiaorong Sun* |
| **09:54~10:06** | **3D Osteotomy Simulation and Navigation System for Orthognathic Surgery**<br>*Yanping Lin* |
| **10:06~10:18** | **Functional Optical Coherence Tomography:Technology and Applications**<br>*Zhongping Chen* |
| **10:18~10:30** | **Improved Lung Tumor Detection in CT Images Utilizing a Template Database**<br>*Fei Wu* |
| **10:30~10:45** | **Tea break** |
| **10:45~10:57** | **Automatic Extraction of Liver in Serial CT Slices**<br>*Tao Yu* |
| **10:57~11:09** | **Fast Backprojection Realization on Itanium Platform**<br>*Jinjun Liu* |
| **11:09~11:21** | **Methods of CT Geometry Correction Based on Sinogram**<br>*Haining Sun* |
| **11:21~11:33** | **The Research and Implementation of Visualization and 3D Disposing Based on Gradient and Illumination Model**<br>*Zhongming Xue* |
| **11:33~11:45** | **An Interactive Segmentation of 3D Medical Image Data Sets**<br>*Tong Jia* |
| **11:45~11:57** | **Application of Monte Carlo Simulation Model to Study the Effect of Numerical Aperture on Probing Depth of OCT System**<br>*Kaijie Wu* |
| **11:57~12:09** | **The Development of A Three-Dimensional Spin-Echo Based MRI-Fricke-infused Gel Dosimetry**<br>*N-Y Cho* |

## Track6: Cellular and Molecular Engineering

*Venue:Meeting room No.51, 15th District*

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|---|---|
| Chair | *Mian Long, Institute of Mechanics, Chinese Academy of Sciences,Beijing,China*<br>*Larry Lum, School of Medical, Boston University, USA* |
| **08:30~09:00** | ***2D Kinetics and Forced Dissociation of Selectin-Ligand Bindings**<br>*Mian Long, Institute of Mechanics, Chinese Academy of Sciences,Beijing,China* |
| **09:00~09:30** | ***General Insertion/Cellcide Ablity of An Ionic Channel Induced by Selected Targeting, A Potential Ablity of An Exotoxin Released via Molecular Engineering** |

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| | *Xiao-Qing Qiu, Sichuan University,Sichuan,China* |
| 09:30~09:40 | **Docking Dinucleotides to HIV-1 Integrase Carboxyl-Terminal Domain for Finding Possible DNA Binding Sites**<br>*H. M. Zhu* |
| 09:40~09:50 | **Use of LIE in Predicting the Binding Free Energies to HIV-1 Integrase of Dicaffeoyl- or Digalloyl Pyrroliding and Furan Derivatives**<br>*Chunli Liu* |
| 09:50~10:00 | **Rational Design of Novel Styrylquinoline HIV-1 Integrase Inhibitors**<br>*Xiao-hui Ma* |
| 10:00~10:10 | **Mechanical Probing of Malaria-infected Erythrocytes**<br>*L. Qie* |
| 10:10~10:20 | **Investigating the Progression of Diseased State of Malaria-infected Red Blood Cells using Micropipette Aspiration**<br>*En-Hua Zhou* |
| 10:20~10:25 | **Tea Break** |
| 10:25~10:35 | **Real Time Measurements of WBC adhesiveness by Laser Tweezers**<br>*MR Lee* |
| 10:35~10:45 | **TFAR19 Gene Changes the Deformability and Adhesion Behavior of Murine Erythroleukemia Cells**<br>*Zongyao Wen* |
| 10:45~10:55 | **Study of Molecular Interaction between Malaria Infected Erythrocytes and Endothelial Cells using Atomic Force Microscopy**<br>*Ang Li* |
| 10:55~11:05 | **A Cellular Model to Predict Ultrasonic Backscatter Coefficient in Cancellous Bone**<br>*De-an Ta* |
| 11:05~11:15 | **Analysis of the Effect of Disturbed Flow on Leukocyt Transendothelial Migration in a Co-culture Model of the Arterial Wall**<br>*Cheng-Nan Chen* |
| 11:15~11:25 | **SPT System for detecting motion of LDL receptor**<br>*Songshan Xiao* |
| 11:25~11:35 | **A Study on Screening of Differentially Expressed Genes on Chrysanthemum Responding to Stress**<br>*Bo-Chu Wang* |
| 11:35~11:45 | **Force Spectroscopy of THP-1 Cell/ HUVEC Monolayer Interaction**<br>*SC Chou* |
| 11:45~11:55 | **The Cell Biological Evaluation on Medical Polyacrylamide Hydrogel** |



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| | *Chengxiang Fan* |
| 11:55~12:05 | **Application of Pyrosequencing Technology in Confirming SARS Virus Isolates**<br>*Shaohui Cheng* |
| 12:05~12:15 | **Effect of Electromagnetic Pulse on Rats Cortex Mitochondrial Function**<br>*Jing-Wei Tian* |
| 12:15~12:25 | **Characterization of Microcapsule Diffusion Properties Using Confocal Microscope**<br>*Lijuan Shen* |

## Track7: Targeted treatment technique

*Venue:Meeting room No.67, 15th District*

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|---|---|
| Chair | *Jiren Zhang, The first military medical University,Guangzhou,China*<br>*Augustine Y. Cheung,Ceision Corporation,Columbia,Maryland,U.S.A*<br>*Zhongzhu Zhang,Beijing Zhongkanglian Medical Equipment Company Ltd.* |
| 08:30~08:42 | **Model and Simulation for Cancer Targeted Therapy**<br>*Libing Liu* |
| 08:42~08:54 | **Meridian Distribution Theory And Drug Targeting Of TCM**<br>*Zhong Li* |
| 08:54~09:06 | **Physical Enhancement of Active Transdermal Drug Application: A Development of Drug Delivery Technology**<br>*Chunxiao Weng* |
| 09:06~09:18 | **Research and Development of Slow-Released Anti-Cancer Drugs**<br>*Mei Feng* |
| 09:18~09:30 | **Treatment Plan System(TPS)and Tumor Targeted Treatment Technology**<br>*Huijun Chen* |
| 09:30~09:42 | **Radio Chemotherapy with Interspatial Implantation of 125I Seeds and Five-FU Slow-release Seeds for Malignant Tumor**<br>*Lijun Li* |
| 09:42~09:54 | **The localization Technology of Targeted Orientation Therapy for Tumor**<br>*Zhongzhu Zhang* |
| 09:54~10:20 | **Tea break** |
| 10:20~10:32 | **Study of HIFU treatment of Residual Hepatic Tumor after Radiofrequency Treatment**<br>*Hui Zhu* |
| 10:32~10:44 | **Follow-up of High Intensity Focused Ultrasound Treatment of Primary Malignant Bone Tumors: A Multicenter Report** |

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| | *Wei Wang* |
| 10:44~10:56 | **Procoagulant Stimulus Processing by the Intrinsic Pathway of Blood Plasma Coagulation**<br>*Zhuo Rui* |
| 10:56~11:06 | **Measuring and Verifying parameters of Dynamic Multi-leaf Collimator and Commissioning of A Commercially Available System for IMRT**<br>*Yu Wu* |
| 11:06~11:18 | **Finite-Element Simulation of Lung Deformation During Normal Aspiration and Applied in Radiation Treatment**<br>*Feng Lin* |
| 11:18~11:30 | **Apertured-based Optimization for Static IMRT and Its Application to Breast Tumor**<br>*Yongjie Li* |
| 11:30~11:42 | **Incorporating Expert Knowledge into Beam Angle Selection for IMRT Planning**<br>*Yongjie Li* |
| 11:42~11:54 | **In vitro Release Behaviors of Alginate/poly-L-histidine Microcapsules**<br>*Xu F H* |
| 11:54~12:06 | **Anti-DNA Antibody Modified Coronary Stent for Site-specific Plasmid DNA Delivery**<br>*Xu Jin* |
| 12:06~12:18 | **Immobilization of Gene Vector On Polyurethane Surface Using Monoclonal Antibody For Site-Specific Gene Therapy**<br>*CX Song* |
| 12:18~12:30 | **Polypeptide-based Targetting Gene Delivery**<br>*Xiaoli He* |

## Track9: Bioinstrumentation & Signal Processing

*Venue:Meeting room No.69, 15th District*

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|---|---|
| Chair | *Shangkai Gao, Tsinghua University,Beijing,China*<br>*Yung-Nien Sun, National Cheng Kung University, Taiwan, China* |
| 08:30~09:00 | ***High Intensity Focused Ultrasound (HIFU) for Cancer Therapy**<br>*Gail ter Haar, Royal Marsden Hospital, UK* |
| 09:00~09:12 | **The Basal Research of Tumor Ablation using HIFU**<br>*Zhibiao Wang* |
| 09:12~09:22 | **The energy-efficiency factor (EEF) for the use of high-intensity focused ultrasound in the extracorporeal ablation of Liver, kidney and muscle** |



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| | *Faqi Li* |
| 09:22~09:32 | **MRI presentation of malignant bone tumors after high-intensity focused ultrasound therapy**<br>*Kequan Li* |
| 09:32~09:42 | **MR imaging findings of osteosarcomas treated with high-intensity focused ultrasound**<br>*Huiyi Ye* |
| 09:42~09:54 | **Assessment of Cancellous Bone Status Using the Ultrasonic Backscattered Spectral Maximum Shift**<br>*De-an Ta* |
| 09:54~10:06 | **Measuring of tissue temperature induced by laser**<br>*Xiaoxia Li* |
| 10:06~10:18 | **New Ways in Detecting Human Diseases**<br>*Feng Wu* |
| 10:18~10:30 | **Cardiovascular automatically feedback and control therapeutic instrument**<br>*Yu-Zhi Ge* |
| 10:30~10:45 | **Tea Break** |
| 10:45~11:15 | ***Cell motion assessment by using optical microscopic system**<br>*Yung-Nien Sun, National Cheng Kung University, Taiwan, China* |
| 11:15~11:27 | **Motif Searching Algorithm For Protein Sequences Database**<br>*Chunjuan Du* |
| 11:27~11:39 | **Miniaturization of the nine-linear accelerometer array to measure high angular acceleration of a rigid body**<br>*Y. King Liu* |
| 11:39~11:51 | **A study of maternal hemodynamic change during healthy pregnancy and women with gestation hypertension**<br>*Haihua Gu* |
| 11:51~12:03 | **Non-invasive Measurement of Intra-abdominal Pressure**<br>*Xia Li* |
| 12:03~12:15 | **Study on the methodology of fluorescence ratio imaging**<br>*Haiping Ren* |
| 12:15~12:27 | **The study of abdominal bleeding by multi-frequency electrical impedance method using rabbit models**<br>*Guopeng Zhang* |

## Track10: Medical Information & Digital Medicine

*Venue:Meeting room No.68, 15th District*

Chair — *Duchun Tao, Anke High-tech Co. Ltd.,Shenzhen,China*
*Jihong Wang, University of Texas MD Anderson Cancer Center, USA*

**08:40~09:00** ***Digital X-ray Imaging: Challenges and Opportunities in the next decade**
*Hong Liu, University of Oklahoma, USA*

**09:00~09:20** ***IQQA—A New Generation of Technology for Diagnostic Image Analysis**
*Jianzhong Qian, EDDA Tech, USA*

**09:20~09:40** ***Secure Communication of Medical Information based on the PaDok® Concept Bertram Bresser and Volker Paul**
*Jianbo Gao, Fraunhofer-Institute for Biomedical Technology (IBMT), Germany*

**09:40~09:55** **Design of a Web-based Monitoring System for the Drugs Stored in a Hospital**
*I-Cheng Shen*

**09:55~10:10** **The Research of Automatic Feature Extraction for CT Image Content-Based Retrieval**
*Jie Zhou*

**10:10~10:30** **Tea Break**

**10:30~10:45** **The Study of Diagnostic Accuracy of Chest Nodules by Using the Different Compression Methods**
*Zhigang Liang*

**10:45~11:00** **Automatic Identification of Landmarks in Craniofacial Surgery Simulation System**
*Lin Pan*

**11:00~11:15** **Obstetric Decision Support Systems and Their Pilot Study**
*Chunwei Zhao*

**11:15~11:30** **The Establishment of an OAE Database System**
*Weiqi Wei*

**11:30~11:45** **A Telemetry System with Novel Structure**
*Jun Ji*

**11:45~12:00** **Means to Implement Patient Referral Based on HL7 Standard**
*Piaoli Wang*

**12:00~12:15** **Rabbit Ventricular Fibrillation Database**
*Qing Jiao*

**12:15~12:30** **The Integration of Hospital Information-sharing Platform Based OnJ2EE Framework**
*Xiaoming Zheng*



**12:30~13:30 Lunch**

*Dining room: Yanfu Restaurant, 15th District*

**13:30~14:30 WACBE General Assembly**
*Chair: Savio Woo, University of Pittsburgh, USA*

*Venue:Meeting room No.50-51, 15th District*

**14:30~16:30 Plenary Lecture**
*Chair:Savio Woo,University of Pittsburgh, USA.*
*Tingfei Xi,National Institute for the Control of Pharmaceutical & Biological Products, China*

*Venue:Meeting room No.50-51, 15th District*

**14:30~15:30** **Mechanical and Molecular Bases of Signal Transduction in Endothelial Cells**
*Shu Chien, University of California, San Diego, USA*

**15:30~16:30** **Study of High-intensity Focused Ultrasound in the Past16 Years in China**
*Zhibiao Wang, Chongqing University of Biomedical Science,Chongqing, China*

**16:30~16:45** **Tea Break**

**16:45~18:30 Meet-the-Masters**

*Venue:Meeting room No.50-51, 15th District*

## Wednesday September 29

**07:30~08:30 Plenary Lecture**
*Chair: Xiuzhen Dong, Fourth Medical University, Xi'an,China*
*Zong-Ming LI, University of Pittsburgh, USA*

*Venue:Meeting room: No.50-51, 15th District*

**07:30~08:30** **Magnetic Resonanace Imaging: Challenges and Opportunities**
*Zhi-Pei Liang, The University of Illinois, USA*

**08:30~12:30 Sessions**

## Track1: Biomechanics

*Venue:Meeting room: No.51, 15th District*

Chair — **(08:30~10:27)**
*Zonglai Jiang, Shanghai JiaoTong University,Shanghai,China*
*Huaiqing Chen, Sichuan University,Sichuan,China*

**08:30~09:00** ***Impact Biomechanics Research – The Science of Injury Prevention**
*Albert I. King, Wayne State University, USA*

**09:00~09:10** **Simulation of Human Neck Responses to Dynamic Load Associated with Car Collisions Using a Head-Neck FE Model**

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| | *Jikuang Yang* |
| **09:10~09:20** | **FE Analysis of Head-Neck Responses During Car Impact**<br>*Ee-Chon Teo* |
| **09:20~09:30** | **Advanced Modeling of Human Occupant for Safety Evaluation**<br>*King H. Yang* |
| **09:30~09:40** | **Towards Simulation-based Biomechanical Analysis of Human Head Impact**<br>*Jesse S. Ruan* |
| **09:40~09:50** | **Biomechanical Comparison of Fixation Techniques for Double Pars Fractures**<br>*Hsiang-Ho Chen* |
| **09:50~10:00** | **Biomechanical Effects of Polyaxial Screws on One Spinal Motion Segment with the Inter-body Cage - a Synthetic Model**<br>*Hsiang-Ho Chen* |
| **10:00~10:10** | **Bending Micro Samples of Bone Under The Microscope**<br>*Honggang Zhong* |
| **10:10~10:25** | **Tea Break** |
| Chair | **(10:27~12:30)**<br>*Xiaoyan Deng, Chongqing University,Chongqing,China*<br>*Zhihe Zhao, Sichuan University,Sichuan,China* |
| **10:25~10:55** | ***Numerical Study on Some New Techniques in Orthodontics**<br>*Yubo Fan, Sichuan University,Sichuan,China* |
| **10:55~11:05** | **Three-dimensional Finite Element Analysis Investigating the Biomechanical Effect of Bite Force on the Human Reconstructed Mandible with Various Autogenous Bone Drafts**<br>*Y.Tie* |
| **11:05~11:15** | **A Study on the Influence of Biting Force on Biomechanical Effects of Rapid Maxillary Expansion on the Craniofacial complex with UCLP Using the 3D FEM**<br>*Dongmei Wang* |
| **11:15~11:25** | **A Treatise of the Mechanical Properties of Bones and Bone Mineral Density**<br>*Shyh-Hua Eric Jao* |
| **11:25~11:35** | **Strain Field of Vertebral Body of Two-Motion-Segment Model Under Combined Compression and Sagittal Bending Moment**<br>*Jaw-Lin Wang* |
| **11:35~11:45** | **Pulsatile Flow in a Carotid Bifurcation Model**<br>*Xiaohong Yu* |
| **11:45~11:55** | **Transient Closure Pressure and Squeeze Flow Investigations in Different Mechanical Heart Valve Models**<br>*P. Zhang* |
| **11:55~12:05** | **Numerical Simulation of the Pulsatile Non-newtonian Flow in the Carotid Bifurcation**<br>*Wentao Jiang* |
| **12:05~12:15** | **Non-Invasive Monitoring of the Dynamic Compliance in the Radial Artery**<br>*Jia-Jung Wang* |
| **12:15~12:25** | **The Effect of Injection Angle of Liquid Drug in an Interventional Treatment Via a Vessel on the Perfusion Rate**<br>*Qin Lin* |

## Track2: Biomaterials and Nanotechnology

*Venue:Meeting room No.50, 15th District*

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| Chair | **(08:30~10:45)**<br>*L.Lee Chou, Boston University, USA*<br>*Jiping Zhong, Chinese Academy of Sciences,Beijing,China* |
| **08:30~09:00** | ***Fabrication of Nanobiological materials through molecular self-assembly**<br>*Xiaojun Zhao, Massachusetts Institute of Technology, USA* |
| **09:00~09:12** | **Cytotoxicity Assessment of New Encapsulated Materials for in body Implantable Micro-device**<br>*Wei Cui* |
| **09:12~09:24** | **Preparation and Characterization of Lactic Acid Based porous Poly(ester-urethane) microspheres**<br>*Changwei Tang* |
| **09:24~09:36** | **Study of a Novel Bioinspired Copolymer as Drug-eluting Stent Coating Material**<br>*Dezeng Fan* |
| **09:36~09:48** | **Preparation of Alginate-poly-L-histidine Microcapsules**<br>*S. B. Wang* |
| **09:48~10:00** | **The Study of Hyaluronic Acid Based Antigen-sensitive Hydrogel**<br>*W. M. Tian* |
| **10:00~10:12** | **Immediate Effect of Thermal Modification on Cadaveric Knee Capsule** |

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| | *Nigel Zheng* |
| **10:12~10:24** | **Net Regulation of Osteoclastic Function by Osteoblasts Loaded with Titanium Particles**<br>*Jiang Wu* |
| **10:30~10:45** | **Tea break** |
| Chair | **(10:45~12:30)**<br>*Tuo Jin, Shanghai Jiaotong University,Shanghai, China*<br>*Jiemo Tian, Tsinghua University,Beijing,China* |
| **10:45~10:57** | **Biocompatible Silicone Elastomers**<br>*Hong Chen* |
| **10:57~11:09** | **The PH-sensitive Behaviors of Poly(ethylene glycol terephthalate )-b-Poly (butylenes terephthalate ) Containing Copolymers**<br>*Ai-ying Zhang* |
| **11:09~11:21** | **Experimental Study on the Reconstruction of circumferential Tracheal Defects with a novel Prosthesis**<br>*Hongcan Shi* |
| **11:21~11:33** | **Study on Degraded Products' Distribution and Metabolism of PLGA in vivo**<br>*Nan Hua* |
| **11:33~11:45** | **Preparation of N-butyl Chitosan and their Physical and Biological Properties**<br>*Jing Li* |
| **11:45~11:57** | **Study on Preventing of Scar Formation by the use of Improved Chintosan Membrane**<br>*Bin Guo* |
| **11:57~12:09** | **Low Intensity Pulsed Ultrasound Enhances Fusion Mass in Hydroxyapatite/tricalcium Implanted Posterior Spinal Fusion**<br>*CW Chan* |
| **12:09~12:21** | **Study on the Cytocompatibility of the Segmented Copolyetherester**<br>*Liang Chen* |

## Track4: Tissue Engineering

*Venue:Meeting room No.65, 15th District*

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|---|---|
| Chair | *Yilin Cao, Shanghai Second Medical University,Shanghai,China*<br>*Peter X Ma, University of Michigan, USA*<br>*Guoping Chen, National Institute for Materials Science, Japan* |
| **08:30~08:47** | **Pre-clinical and Preliminary Clinical Studies of Chemically Extracted Acellular Nerve Allograft**<br>*Shibi Lu* |
| **08:47~09:04** | **Neural Stem Cell Programming, Engineering and Tracking in Clinical Neuroregenerative Medicine**<br>*Jianhong Zhu* |
| **09:04~09:20** | **The Repair of Peripheral Nerve Gap by Artificial Tissue nerve**<br>*Xiaosong Gu* |
| **09:20~09:40** | **Discussion** |
| **09:40~09:57** | **Human Marrow Stromal Stem Cells-a New Cell Source for Heart Valve Tissue Engineering**<br>*Junbo Ge* |
| **09:57~10:14** | **In vitro Construction of 3-Dimensional Cardiac Muscle**<br>*ChangYong Wang* |
| **10:14~10:30** | **Discussion** |
| **10:30~10:50** | **Tea Break** |
| **10:50~11:07** | **Corneal Reconstruction by Tissue Engineering**<br>*Jian Ge* |
| **11:07~11:24** | **Advances in Tendon Engineering Research**<br>*Wei Liu* |
| **11:24~11:40** | **Discussion** |
| **11:40~11:57** | **Research and Application Perspective of Skin Substitutes**<br>*Yan Jin* |
| **11:57~12:14** | **In vitro Skin Engineering using Polyglycolic Acids**<br>*Guanghui Yang* |
| **12:14~12:30** | **Discussion** |

## Track5: Medical Imaging

*Venue:Meeting room No.66, 15th District*

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|---|---|
| Chair | *Quanlu Zheng, Neusoft Group,Shenyang,China*<br>*Xiaoping Hu, Emory University and Georgia Institute of Technology, USA* |
| **08:30~08:42** | **The Research on the Ultra-wideband Induced Mode and the Thermoacoustic Model in Microwave-Induced Thermoacoustic CT**<br>*Shizeng Wu* |
| **08:42~08:54** | **Processing of Nuclear Magnetic Resonance Based on Digital Crossing Demodulation**<br>*Gang Zhao* |

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| **08:54~09:06** | **Apply MR Diffusion Tensor Imaging (DT-MRI) to Brain Tumor Disease**<br>*Weiwei Zhang* |
| **09:06~09:18** | **Automatic Segmentation of Echocardiography Using Morphology by Reconstruction**<br>*Xian-Hua Shen* |
| **09:18~09:30** | **Commercial X-ray Detectors for Digital Radiography**<br>*Honglin Yu* |
| **09:30~09:42** | **The Implementation of Efficient Image Reconstruction for CT**<br>*Jie Liu* |
| **09:42~09:54** | **Serial Hypoxic Imaging with 99 Tc m-HL91 SPECT During Radiotheropy to Non-Small Cell Lung Cancer**<br>*Jinming Yu* |
| **09:54~10:06** | **A Method of Calculating Current Modulation Function in CT**<br>*Haining Sun* |
| **10:06~10:18** | **A Medical Ultrasonic Image Filtering Method Based on Anisotropic Diffusion**<br>*Yun Peng* |
| **10:30~10:45** | **Tea Break** |
| **10:45~10:57** | **Experimental Platform of Image Monitoring by EIT for Intraperitoneal Bleeding**<br>*Fusheng You* |
| **10:57~11:09** | **Medical Imaging Computation and Processing Platform:Research and Implementation**<br>*Jie Tian* |
| **11:09~11:21** | **A Method Based on Fast Spin Echo for Improving Image Quality**<br>*Ping Yang* |
| **11:21~11:33** | **Optical Properties Effects upon the Precision of Dynamic Spectrum**<br>*Xiaoxia Li* |
| **11:33~11:45** | **Surface Reconstruction for IGRT**<br>*Cunxiu Chen* |
| **11:45~11:57** | **Digital Signature and Encryption of Medical Digital Images**<br>*Chung-Yueh Lien* |
| **11:57~12:09** | **A Multi-Channel NIR Diffuse Image Instrument for Human Brain Function**<br>*Canxing Xu* |
| **12:09~12:21** | **The Application of Infrared Imaging to Psychological Status Assessment -The Effect of Music-Based Imagery Relaxation**<br>*Jin-Guey Lee* |



## Track9: Bioinstrumentation & Signal Processing

*Venue:Meeting room No.69, 15th District*

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|---|---|
| Chair | *Zhuxiang Fang, Fudan University,Shanghai,China*<br>*Daming Wei, University of Aizu,Japan* |
| **08:30~09:00** | ***Derived Electrocardiogram and ST-segment Monitoring**<br>*Daming Wei, University of Aizu,Japan* |
| **09:00~09:12** | **The Design of a System for Converting Arterial Pulse into Sound**<br>*Yan-Chay Li* |
| **09:12~09:24** | **Design of an Ingenious Electronic Stethoscope System for Separating Heart and Lung Sounds**<br>*Chih-Yuan Chang* |
| **09:24~09:36** | **The Design of a System for Converting Arterial Pulse into Sound**<br>*Yan-Chay Li* |
| **09:36~09:48** | **Accuracy of Oscillometric Blood Pressure Measurement**<br>*Haiyan Xiang* |
| **09:48~10:00** | **A Possible Involvement of â-Endorphin, Serotonin in the Analgesia of Rats Induced by Extremely Low Magnetic Field**<br>*Xiu-Qi Bao* |
| **10:00~10:12** | **Development of Noninvasive Measurement System of Artery Blood Compositions**<br>*Gang LI* |
| **10:12~10:24** | **System Development in Analyzing Electrical Potential with Integration of 3D Reconstructed Cardio Image Display for The Study of Atrial Fibrillation**<br>*Wei-chih Hu* |
| **10:30~10:45** | **Tea break** |
| **10:45~11:15** | ***Automatic External Defibrillator and VT/VF Recognition**<br>*Zuxiang Fang, Fudan University,Shanghai,China* |
| **11:15~11:27** | **A Comparative Study of Cardiac Contractility Recovery Trend and Heart Rate Recovery Trend Following Exercise**<br>*Liming Chen* |
| **11:27~11:39** | **Real-time Detection of Feature Waves for Mobile Cardiac Telemonitoring System**<br>*Lingyun Zhu* |
| **11:39~11:51** | **Development of a Hemodynamic Parameters Detecting Instrument**<br>*Yue Diao* |
| **11:51~12:03** | **Development of a Portable Cardiovascular Bloodstream Parameters Detecting Instrument Based on MSP430 Micro-controller**<br>*Xu Du* |

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| **12:03~12:15** | **Steady Flow Transapical to Aorta Intraventricular Pump Completely Unloads Left Ventricle(LV) and Generates Pulsatile Flow in Sheep**<br>*Dongfang Wang* |
| **12:15~12:27** | **The Simultaneous Multi-points Epicardial Mapping of VF and The Method Investigation Of LowEnergy Defibrillation**<br>*Xiaomei Wu* |

## Track10: Medical Information & Digital Medicine

*Venue:Meeting room No.68, 15th District*

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| Chair | *Duchun Tao, Anke High-tech Co. Ltd.,Shenzhen,China*<br>*Jihong Wang, University of Texas MD Anderson Cancer Center, USA* |
| **08:30~08:50** | ***Clinically Relevant Applications in Modern PACS**<br>*Minglin Li, Cedara Software Corp, Canada* |
| **08:50~09:10** | ***Image Centric to Information Centric**<br>*Jiwu Zhang, Eastman Kodak Company,Shanghai,China* |
| **09:10~09:25** | **IMAER.net, A New Model for PACS and Teleradiology**<br>*Jiquan Liu* |
| **09:25~09:45** | ***The Evaluation of PACS**<br>*Jianning Song, Institute of Acoustic, China Science Academy,Beijing,P.R.China* |
| **09:45~10:05** | ***Quality Assessment of Medical Softcopy Image Display Systems in PACS, New Challenges and Issues**<br>*Jihong Wang, University of Texas MD Anderson Cancer Center, USA* |
| **10:05~10:20** | **Tea Break** |
| **10:20~12:30** | **Discussion** |

## Track11: Rehabilitation Engineering & Behavior Medicine

*Venue:Meeting room No.67, 15th District*

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|---|---|
| Chair | *Ming Zhang, The Hong Kong Polytechnic University,Hong Kong,China*<br>*Zong-Ming LI, University of Pittsburgh, USA* |
| **08:30~09:00** | ***TeleCare Technology for the Elderly and the Disabled at Home and in Community**<br>*Arthur FT MAK, Jockey Club Rehabilitation Engineering Center, The Hong Kong Polytechnic University,Hong Kong,China* |
| **09:00~09:30** | ***Research and Development of Rehabilitation Engineering in Mainland of China**<br>*Dewen Jin, Tsinghua University, Beijing, China* |
| **09:30~09:42** | **Coupling between the Left Ventricle and Arterial System in Patients with Acute Myocardial Infarction**<br>*Jia-Jung Wang* |
| **09:42~09:54** | **Simulation of Osteoporosis and Exercise Prevention and Cure in Women**<br>*Xinghua Zhu* |
| **09:54~10:06** | **Retrieval Analysis in Patellofemoral Joint of Total Knee Prostheses**<br>*Chang-Hung Huang* |
| **10:06~10:18** | **The Automatic Control in Human Body Feedback Regulates the System Arithmetic Figure Turns the Intelligence Information Platform**<br>*Youzhi Guo* |
| **10:18~10:35** | **Tea Break** |
| Chair | *Dewen Jin, Tsinghua University, Beijing, China*<br>*James Goh, National University of Singapore, Singapore* |
| **10:35~11:05** | ***Computational Models of Foot and Ankle - Application to Foot Support Design**<br>*Ming Zhang and Jason Tak-Man Cheung, Jockey Club Rehabilitation Engineering Centre, The Hong Kong Polytechnic University, Hong Kong, China* |
| **11:05~11:35** | ***Direct Pressure Cast (DPCast) Sockets for Trans-Tibial Amputees**<br>*JCH Goh, National University of Singapore, Singapore* |
| **11:35~11:47** | **Development of a Quasi-dynamic Finite Element Model of the Below-knee Prosthetic Socket Interface**<br>*Xiaohong Jia* |
| **11:47~11:59** | **Using D3D System to Design Insoles for a top Chinese Athlete to Avoid Injuries**<br>*Xiangdong Wang* |
| **11:59~12:11** | **Biomechanical Research on Endoskeletal Trans-tibial Monolimb**<br>*Zhan Liu* |
| **12:11~12:23** | **A Robust Design of Thermoplastic Transtibial Prosthesis: Minimizing Variations Caused by Control Factors**<br>*Nian-Zhong Chen* |

**12:30~13:30 Lunch**

*Dining room: Yanfu Restaurant, 15th District*

**13:30~14:30 Plenary Lecture**

*Chair: X. Edward Guo, Columbia University, USA*
*Kerong Dai, Shanghai Second Medical University, China*

*Venue:Meeting room No.50-51, 15th District*

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| **13:30~14:30** | **Electrophysiological Imaging/Mapping of the Heart: Animal Experiment and Clinical Application**<br>*Ruey J. Sung, Medicine at Cheng Kung University, Tainan, China* |

## 14:30~18:30 Sessions

### Track2: Biomaterials and Nanotechnology

*Venue:Meeting room No.50, 15th District*

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|---|---|
| Chair | **(14:30~16:30)**<br>*Helen H. Lu, Columbia University,USA*<br>*Changren Zhou, JiNan University,Guangzhou,China* |
| **14:30~15:00** | ***The composite approach in developing new biomaterials**<br>*Min Wang, The University of Hong Kong,Hong Kong,China* |
| **15:00~15:12** | **Bone scaffold materials and new bone formation**<br>*Jiemo Tian* |
| **15:12~15:24** | **Bone-like nano-scaled apatite/collagen combined coating on PLLA films by an accelerated biomimetic coprecipitation process**<br>*Yun Chen* |
| **15:24~15:36** | **Novel PLA/chitosan composite materials prepared by SCF-CO2 technique**<br>*LH Li* |
| **15:36~15:48** | **PAA-grafted chitosan beads for the removal of low density lipoprotein**<br>*Haiyan Li* |
| **15:48~16:00** | **Effect of crystallinity of hydroxyapatite coatings on their dissolution and osseointegration in vivo**<br>*Weichang Xue* |
| **16:00~16:12** | **Synthesis and characterization of a new thermosensitive polymers as medical nonadhere liquid embolic materials**<br>*Qin Wang* |
| **16:12~16:24** | **An Experimental study of Sponge and Putty of Demineralized Bone Matrix (DBM) in the Repair of Segmental Defects**<br>*Mingxue Sun* |
| **16:30~16:45** | **Tea break** |
| Chair | **(16:30~18:30)**<br>*Shaoyi Jiang, University of Washington,USA*<br>*F.Z.Cui, Tsinghua University, Beijing, China* |
| **16:45~16:57** | **Studies on hemocopatibility of a novel fluorinated phosphorylcholine poly(carbonate urethanes)**<br>*Hong Tan* |
| **16:57~17:09** | **Effects of phospholamban antisense RNA on SERCA and [Ca]I in rat cardiomyocytes using recombinant adeno-associated virus vector**<br>*Jiang Li* |
| **17:09~17:21** | **Influence of biomaterial on signal transduction of platelet: ex vivo studies**<br>*Jiao Sun* |
| **17:21~17:33** | **Priming with hydroxyethel sarch or gelofusion? The effect on coagulation in CPB**<br>*Jin-Lan Qian* |
| **17:33~18:03** | *Helen H. Lu* |

### Track4: Tissue Engineering

*Venue:Meeting room No.65, 15th District*

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|---|---|
| Chair | *Yilin Cao, Shanghai Second Medical University,Shuanghai,China*<br>*Peter X Ma, University of Michigan, USA*<br>*Guoping Chen, National Institute for Materials Science, Japan* |
| **14:30~14:43** | **Osteochondral Repair and Regeneration Using Tissue Engineering Technique**<br>*JCH Goh* |
| **14:43~14:56** | **Hydrogel-filled Polylactide Porous Scaffolds for Cartilage Tissue Engineering**<br>*Yihong Gong* |
| **14:56~15:09** | **Joint Resurfacing using Allograft Chondrocytes Embedded in Alginate Gel**<br>*Fang-Yuan Yu* |
| **15:09~15:22** | **Comparative Studies on the Modes of Autologous Chondrocytes Implantation**<br>*Fang-Yuan Yu* |
| **15:22~15:35** | **Synthesis and Characterization of (D, L-lactic acid) and Cholesterol Copolymers for Promoting the Compatibility of Chondrocyte**<br>*Guan-Hua Yu* |
| **15:35~15:48** | **On Computer Aided Tissue Engineering**<br>*Wei Sun* |
| **15:48~16:01** | **A Micro-computerized Apparatus for Cell Stretch Culture**<br>*Tingwu Qin* |
| **16:01~16:14** | **Specific Single Pulsed Electromagnetic Field Affects Osteoclast-Mediated Bone Resorption**<br>*Sherry Huang* |
| **16:14~16:34** | **Tea Break** |
| **16:34~16:47** | **Adhesive Properties of Tenocyte to Modified Surface of Polymer**<br>*Tingwu Qin* |
| **16:47~17:00** | **Anterior Cruciate Ligaments Reconstruction with Tissue Engineered Ligament in Rabbits**<br>*Zigang Ge* |

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| **17:00~17:13** | **Development of Tissue-Engineered Biologic Blood Vessel**<br>*Chuhong Zhu* |
| **17:13~17:26** | **Quantum Mechanics modeling of cross link between fibrils**<br>*Honggang Zhong* |
| **17:26~17:39** | **A Hybrid Polymeric Scaffold for Tissue Engineering Application**<br>*Siew-Lok Toh* |
| **17:39~17:52** | **Polymer Nanofibers by Electrospinning and their Applications in Biomedical Engineering**<br>*Lu Zhang* |
| **17:52~18:05** | **Gelatin Particles as Porogen to Fabricate Poly(L-lactic acid) Scaffolds**<br>*Qingliang Zhou* |
| **18:05~18:18** | **Design, Processing, and Analyses of Polymer Scaffolds for Tissue Engineering**<br>*James J-S. Stone* |

## Track5: Medical Imaging

*Venue:Meeting room No.66, 15th District*

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|---|---|
| Chair | *Quanlu Zheng, Neusoft Group,Shenyang,China*<br>*Xiaoping Hu, Emory University and Georgia Institute of Technology, USA* |
| **14:30~14:42** | **An Approach to Edge Detection Based on the Character of MRI**<br>*Hongyu Guo* |
| **14:42~14:54** | **The Fundamental Research of The Information Detecting Techniques in Medical Magnetic Induction Imaging**<br>*Ye Li* |
| **14:54~15:06** | **Design of Minimum Energy Bi-planar Gradient Coils for MRI System by the Modified Target Field Method**<br>*Xin Tang* |
| **15:06~15:18** | **CFD Simulation the Blood Flow in the Circle of Willis**<br>*Qi Yuan* |
| **15:18~15:30** | **Development of Integrated Tool for Creating Geometrics Model with Anatomic Accuracy**<br>*Song Gao* |
| **15:30~15:42** | **High-Resolution Anatomical Study of Animal and Human Fetal Brain White Matter Structures Using Diffusion Tensor Imaging Techniques**<br>*Rong Xue* |
| **15:42~15:54** | **Data Mining for Average Images in a Digital Hand Atlas**<br>*Lucy A. Zhang* |



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| **15:54~16:06** | **Implementation of Real-Time Video Tracking and Analysis System for Animal Behavior Measurement**<br>*Yu-Jen Chen* |
| **16:06~16:18** | **A Novel Algorithm Based on Fuzzy Gibbs Random Fields for Image Segmentation**<br>*Gang Yan* |
| **16:18~16:30** | **A Multi-Frequency Electrical Impedance Tomography System Based on Frequency Mixing and Sweeping Technique**<br>*Xue-Tao Shi* |
| **16:30~16:45** | **Tea break** |
| **16:45~16:57** | **A Maximum Likelihood Method for Extracting Event-related Signals in fMRI**<br>*Weidong Wang* |
| **16:57~17:09** | **The R&D of the RF Amplifier of NMR**<br>*Zhiqiang Yang* |
| **17:09~17:21** | **Differences in Myocardial Mechanical Responses between Right Ventricular Pacing and His Bundle Pacing Using Intracardiac Tissue Doppler Ultrasonic Imaging**<br>*Deyu Li* |

## Track6: Cellular and Molecular Engineering

*Venue:Meeting room No.51, 15th District*

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|---|---|
| Chair | *Mian Long, Institute of Mechanics, Chinese Academy of Sciences,Beijing,China*<br>*Larry Lum, Boston University School of Medical, USA* |
| **14:30~15:00** | ***Identification of Postembryonic Pluripotent Stem Cells from Various Human Fetal Tissues and with Similar Characteristics**<br>*Robert Chunhua zhao, Institute of basical medical sciences CAMS and PUMC, Beijing,China* |
| **15:00~15:30** | ***Targeting Stem Cells to Myocardial Infarcts Using Bispecific Antibodies to Myocardial Injure Antigens.**<br>*Larry Lum, School of Medical, Boston University,USA* |
| **15:30~15:40** | **Control Release of Rapamycin in the Coated Cardiovascular Stent in Vitro**<br>*Na Zhang* |
| **15:40~15:50** | **Cytokine-Induced Mobilization of Endothelial Progenitor Cells Enhances Repair of Injured Arteries** |

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| | *Deling Kong* |
| **15:50~16:00** | **Identification of Postembryonic Pluripotent Stem Cells from Various Human Fetal Tissues and with Similar Characteristics**<br>*Baijun Fang* |
| **16:00~16:10** | **Systemic Infusion of Flk1+ Mesenchymal Stem Cells Ameliorate Carbon Tetrachloride-induced Liver Fibrosis in Mice**<br>*Baijun Fang* |
| **16:10~16:20** | **Xenogeneic Hepatic Chimera in a Human-to-mouse Model: Human Fetal Derived-Flk1+CD31-CD34-Pluripotent Stem Cells for Immunotolerance Induction**<br>*Lianming Liao* |
| **16:20~16:25** | **Tea break** |
| **16:25~16:35** | **Inhibition of Bone Marrow Mesenchymal Stem Cells on T-lymphocyte Proliferation Through CD8+ CD28-T Cells**<br>*Wei Zhang* |
| **16:35~16:45** | **Mesenchymal stem cells inhibit T-lymphocyte proliferation through secreting TGF-â** |
| **16:45~16:55** | **Immunoregulatory characteristic of mesenchymal stem cells on lymphocytes from normal mice and BXSB mice**<br>*Qin Han* |
| **16:55~17:05** | **Abnormality of mesenchymal stem cell from spontaneously hypertensive rats**<br>*Yihao Liu* |
| **17:05~17:15** | **Identification of Human Chronic Myelogenous Leukemia Progenitor Cells with Hemangioblastic Characteristics**<br>*Chunmei Zhen* |
| **17:15~17:25** | **Differentiation of Sca-1+ Cells from Murine Fetal Liver into Renal Tissue Cells**<br>*Jidong Liao* |
| **17:25~17:35** | **Expression of ODF and ICAM-1 of Bone Marrow Mesenchymal Stem Cells is Enhanced with Osteogenic Differentiation**<br>*Z. H. Zhao* |
| **17:35~17:45** | **Medial Artery Calcification in ESRD Patients and Deposition of Bone Matrix Proteins and Chronic Inflammation**<br>*Ping Zhang* |
| **17:45~17:55** | **Metallic Micro-capsulation for Immunoisolation in Transplanting Cells and Tissues**<br>*Minjing Zhan* |



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| **17:55~18:05** | **Molecular Biology Evaluation of Polyacrylamide Hydrogel using real time PCR**<br>*Chengxiang Fan* |
| **18:05~18:15** | **The Differentiation Possibility of Mouse Bone Marrow Mesenchymal Stem Cells to Hepatocyte in vivo**<br>*Yi Zhang* |
| **18:15~18:25** | **Treatment of Fulminant Hepatic Failure in Rats with Hepatic Stem Cell Transplantation**<br>*Jin-Juan Zhang* |
| **18:25~18:35** | **Experimental Study on Human Fetal Hepatic Stem Cell Transplantation in Treatment of Fulminant Hepatic Failure SCID Mice**<br>*Zhi Du* |
| **18:35~18:45** | **The Experiment of Separation and Purification of Pig Pancreas Islet**<br>*Hua-Lei Cui* |
| **18:45~18:55** | **Observation on Curative Effect with Transplantation of Microcapsules Pancreas Islet of Pig for Rats with Diabetes Mellitus**<br>*Hua-Lei Cui* |

## Track10: Medical Information & Digital Medicine

*Venue:Meeting room No.68,15th District*

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|---|---|
| Chair | *Duchun Tao, Anke High-tech Co. Ltd.Shenzhen, China*<br>*Jihong Wang, University of Texas MD Anderson Cancer Center, USA* |
| **14:30~14:50** | ***Networking Hospital and Hospital Mode in Internet Era**<br>*Yanjie Gao, Technology for Healthcare, Ministry of Health,Beijing,P.R.China* |
| **14:50~15:10** | ***Hospital Information Technology for Medical Quality Monitoring, Warning and Management**<br>*Tao Wang, Beijing Tiantan Hospital Information Center,Beijing,P.R.China* |
| **15:10~15:30** | ***Applications of Project Management to the construction of Hospital Information System**<br>*Bangzhi Shang, Xuanwu Hospital, Capital Medical University,Beijing,P.R.China* |
| **15:30~15:50** | ***Outpatient Service Workflow Restructure**<br>*Jian Tian, Beijing Tongren Hospita,Beijing,P.R.China* |
| **15:50~16:05** | **Tea Break** |
| **16:05~16:25** | ***On Applications of Modern Mobile Telecommunication Technology in Building New Medical Healthcare System**<br>*Shaofan Wu, China Unicom,Beijing,P.R.China* |
| **16:25~18:30** | **Discussion** |

## Track11: Rehabilitation Engineering & Behavior Medicine

*Venue:Meeting room No.67, 15th District*

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|---|---|
| Chair | *Weiyi Chen, Taiyuan University of Technology,Shanxi,China*<br>*Teo Ee Chon, Nanyang Technology University, Singapore* |
| **14:30~15:00** | *** Bioengineering Studies of Carpal Tunnel Syndrome**<br>*Zong-Ming LI, University of Pittsburgh, USA* |
| **15:00~15:12** | **Determination of Spatial Relationship between Fracture Fragments: A Critical Step Towards Computer Aided Long Bone Fracture Reduction Using External Fixator**<br>*TKK Koo* |
| **15:12~15:24** | **Measurement of Human Metacarpals on Radiographs – An Engineering Perspective**<br>*L.Y. Zhai* |
| **15:24~15:36** | **Cervical Spine (C4-C6) Test in Pure Bending Mode**<br>*JCH Goh* |
| **15:36~15:48** | **Rotation Range of Motion of the Shoulder Joint**<br>*Hui-Ting Lin* |
| **15:48~16:00** | **In vivo Determination the Relationship Between Human Brachialis Architecture Parameters and Elbow Joint Angle in Passive Condition**<br>*L Li* |
| **16:00~16:12** | **Finger Joint Stiffness**<br>*Zong-Ming Li* |
| **16:12~16:27** | **Tea Break** |
| Chair | *Raymond TONG, The Hong Kong Polytechnic University,Hong Kong, China*<br>*Saiwei YANG, National Yang-Ming University, Taiwan, China* |
| **16:27~16:57** | ***Using a Perturbative Balance Control System to Assess the Rehabilitation Outcomes for Stroke Patients**<br>*Saiwei Yang, National Yang-Ming University, Taiwan, China* |
| **16:57~17:09** | **A Model for Detecting Balance Impairment and Estimating the Risk of Falling in the Elderly**<br>*Li-Shan Chou* |
| **17:09~17:21** | **Effects of High Frequency Sub-Blocking Threshold Sinusoidal Stimulation on a Nerve**<br>*Chou-Ching K. Lin* |
| **17:21~17:33** | **Variation of Power Spectra in Motor Unit Signals Caused by Neuromuscular Transmission Failure**<br>*X. L. Hu* |
| **17:33~17:45** | **Torque Estimation in Voluntary Reciprocal Elbow Flexion and Extension based on a Recurrent Artificial Neural Network**<br>*Rong.Song* |
| **17:45~17:57** | **Gait Stability Following Mild Trauma Brain Injury**<br>*Li-Shan Chou* |
| **17:57~18:09** | **Effect of Treadmill Exercise on Physiological Outcomes after Cerebral Ischemia in Rats – A Pilot Study**<br>*LEUNG Lai Yee* |
| **18:09~18:21** | **Effect of Back Ward-walking Treadmill Training in Proving the Posture Control Skill of Stroke Patients**<br>*Saiwei Yang* |

## Track12: Traditional Chinese Medicine Engineering

*Venue:Meeting room No.69, 15th District*

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|---|---|
| Chair | *Baoyan Liu, China Academy of TCM,Beijing,China*<br>*Guijuan Pan, China Academy of TCM,Beijing,China* |
| **14:30~14:50** | ***Digital Traditional Chinese Medicine & Modernization of TCM**<br>*Baoyan Liu, China Academy of TCM,Beijing,China* |
| **14:50~15:10** | ***Chinese Medicine Digital Human Body Engineering**<br>*Siwen Bi, Chinese Academy of Sciences,Beijing,China* |
| **15:10~15:30** | ***Technology of Cell-grade Micro pulverization on Chinese Herbs**<br>*Xiangjiu Zhuang, Beili Powder Technology Project Limited company, Shandong, China* |
| **15:30~15:50** | ***Medical Theory Design On The all Automatic Instrument of Pulse Signal For Diagnosis and Treatment of TCM**<br>*Mingliang Su, General Hospital of Beijing Military Area,Beijing,China* |
| **15:50~16:02** | **The System of TCM Specialist Treatment on Andropathy**<br>*Changli Yue* |
| **16:02~16:14** | **Determination of Spectrum Characteristic of Near Infrared Radiated by Indirect Moxibustion**<br>*Huayuan Yang* |
| **16:14~16:26** | **A Knowledge Representation Method of Ancient Chinese Medical Literature based on the Concept of Knowledge Unit**<br>*Changhua Liu* |
| **16:26~16:38** | **Recent Advances in Analysis of Tongue Manifestation for Traditional Chinese Medicine**<br>*Yiheng Cai* |

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| **16:38~16:50** | **Biomechanopharmacology in Evaluation of Herbs of Activating Blood Circulation to Remove Blood Stasis**<br>*Fu-long Liao* |
| **16:50~17:02** | **The Treatment of Bronchial Asthma with Method of Integration of TCM and Western Medicine in 2000 cases**<br>*QingYun Meng* |
| **17:02~17:17** | **Demonstration of Acupuncture**<br>*Xiushen Wang* |
| **17:17~17:29** | **Antioxidation and Human Health**<br>*Fuhai Liu* |
| **17:29~17:41** | **Building a Bridge of Integration for Chinese medicine: Observations Drawn from the Chinese Quality of Life Instrument (ChQOL) Development**<br>*Zhao Li* |
| **17:41~17:53** | **On The Resurrection of Frozen Human Body**<br>*Kuifei Zheng* |
| **17:53~18:05** | **The Design and Implementation of the Spine-treating Machine with Two Coincided Centers**<br>*Chuanyong Liu* |
| **18:05~18:17** | **Discussion of Subhealth Theory and the Development of Traditional Chinese Medicine Engineering**<br>*Min Xie* |
| **18:17~18:30** | **Implementation of Traditional Chinese Medicine on Network — Advances in Traditional Chinese Medicine Engineering**<br>*Min Xie* |
| **19:00~21:00** | **Closing Ceremony & Banquet**<br>Chair:*Zuxiang Fang, Fudan University,Shanghai,China*<br>***Speaker:*** *Ned Hwang, National Health Research Institutes, Taiwan, China*<br>*Zulai Tao, Institute of Mechanics,Chinese Academy of Sciences,Beijing, China* |

*Dining room: Yanfu Restaurant, 15th District*

## 口头报告

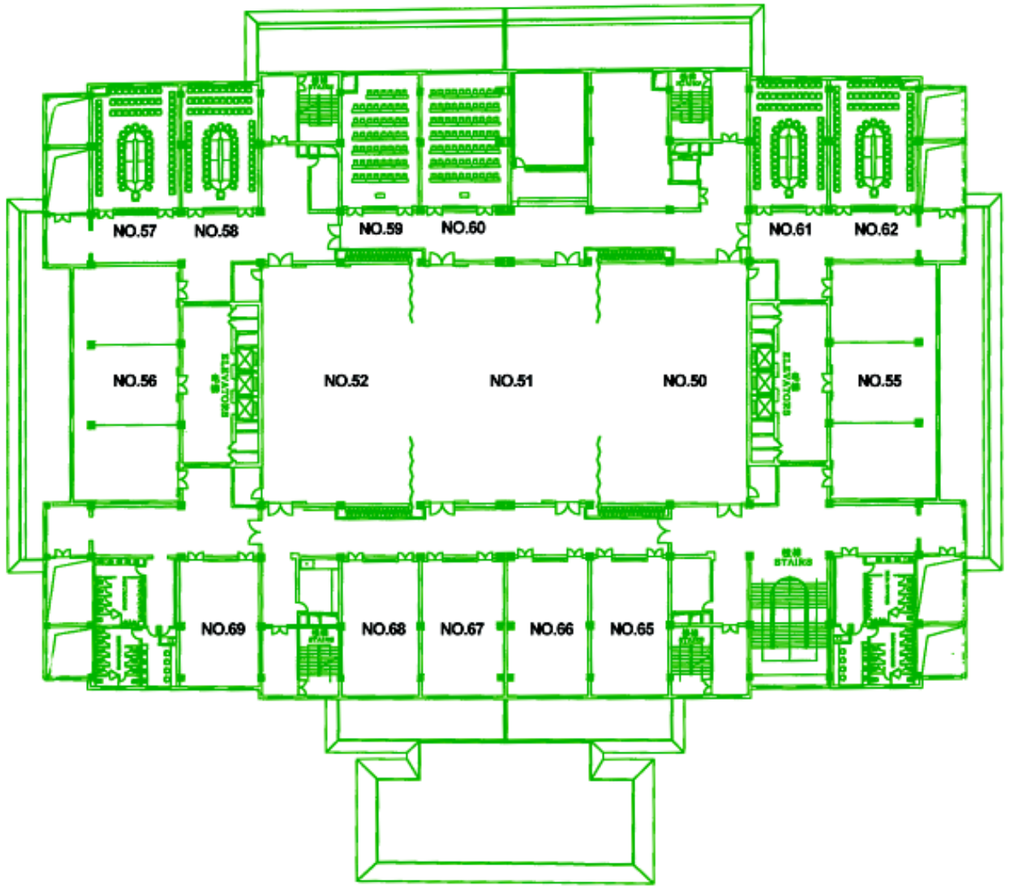
为会议口头报告提供如下设施：计算机(可使用软盘、CD-ROM，该计算机安装windows操作系统、 Power Point软件)、多媒体投影机、激光笔。

请在报告前至少4小时到图片室预读你的幻灯。

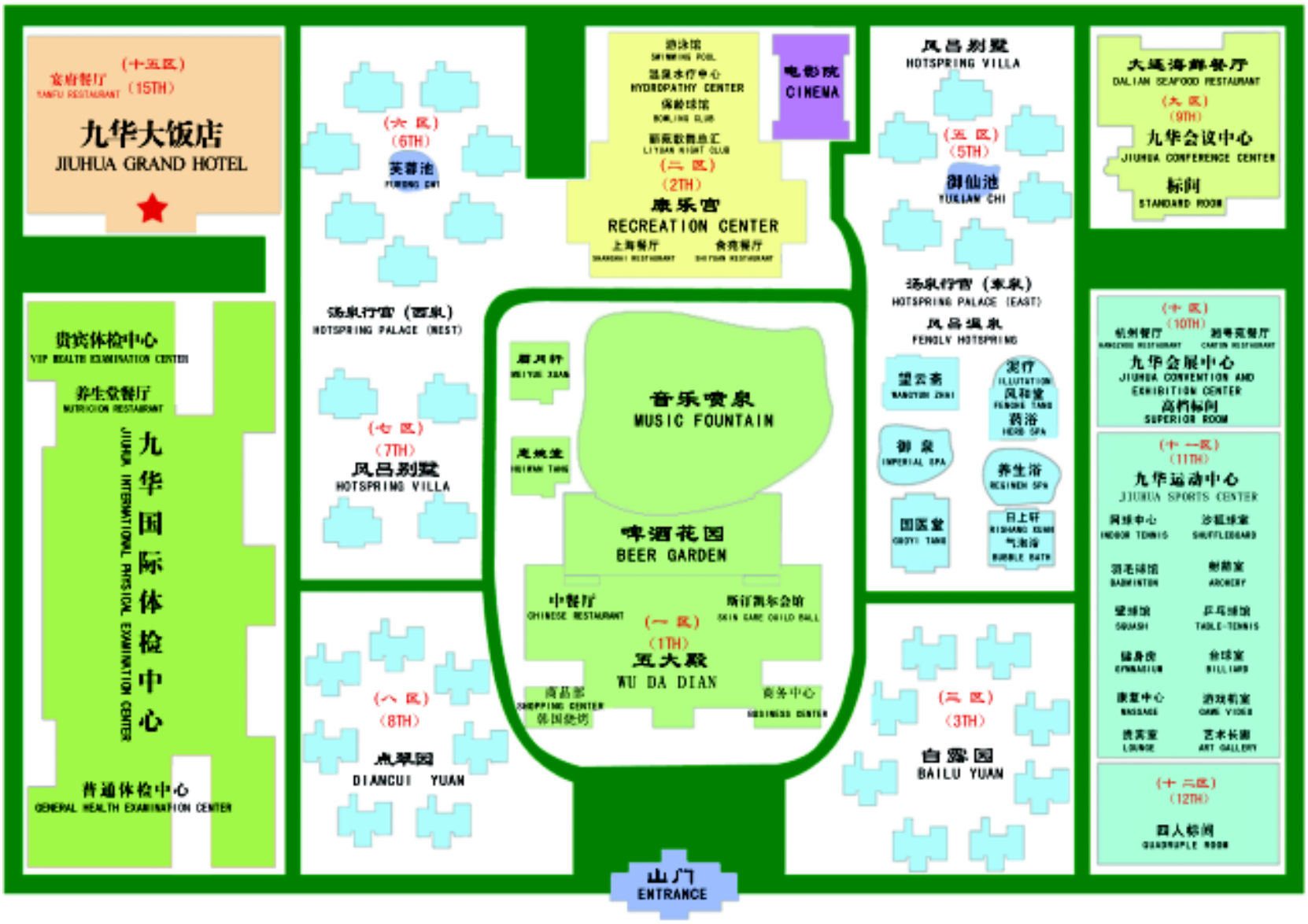
## Oral Presentation

The following AV equipment will be provided in each session room for oral presentation: a desk-top (PC) (with a floppy disk drive and CD-ROM with windows operation system and Power Point installed) an LCD projector, a laser pointer, and a screen.
Please view your lectures at the preview room at least 4 hours before you give it.

## 分会场分布图
## MEETING FACILITIES FLOORPLAN



# 九华山庄内部平面图
## JIU HUA SPA & RESORT OVERALL SITE PLAN




# 九华山庄方位图
## LOCATION OF JIU HUA SPA & RESORT

机场高速公路：

出机场后，上机场高速公路，从第一个出口“天竺”下，沿京顺路东北方向，经过枯柳树环岛、六环路至顺沙路口（有信号灯）左转，向西经过高丽营直走，即可到达九华山庄。全程约40公里，需40分钟左右。