

iCBEB 2013 CONFERENCE GUIDE

TABLE OF CONTENTS

TABLE OF CONTENTS	1
PART I CONFERENCE SCHEDULE	2
PART II INVITED KEYNOTE SPEEKERS.....	4
KEYNOTE SPEAKER: <i>DR. NG YIN KWEE</i>	4
KEYNOTE SPEAKER: <i>DR. EDWARD J. CIACCIO</i>	5
KEYNOTE SPEAKER: <i>DR. NOBUO NAKABAYASHI</i>	6
PART III INVITED KEYNOTE SPEECHES.....	7
KEYNOTE SPEECH 1 <i>MODELLING OF CANCER THERMAL THERAPIES WITH A PERSPECTIVE OF PARAMETRIC SENSITIVITY AND IMPROVED TREATMENT PLANNING</i>	7
KEYNOTE SPEECH 2 <i>NOVEL TRANSFORM AND SPECTRAL ESTIMATOR FOR BIOMEDICAL APPLICATIONS</i>	9
KEYNOTE SPEECH 3 <i>MODELING OF REENTRANT VENTRICULAR TACHYCARDIA BASED ON WAVEFRONT CURVATURE</i>	10
KEYNOTE SPEECH 4 <i>EDITORIAL CONSIDERATIONS FOR MANUSCRIPT SUBMISSIONS</i>	11
KEYNOTE SPEECH 5 <i>MICROLEAKAGE-FREE IMPROVED WET BONDING OF MMA-TBB RESIN TO DENTIN ETCHED WITH 10% PHOSPHORIC ACID IN THE PRESENCE OF FERRIC IONS</i>	13
PART IV ORAL SESSIONS	14
ORAL_1 BIOTECHNOLOGY.....	14
ORAL_2 BIOMEDICAL ENGINEERING	15
PART V POSTER SESSIONS	16
POSTER_1 BIOTECHNOLOGY	16
POSTER_2 BIOMEDICAL ENGINEERING.....	20
PART VI HOTEL INFORMATION	24

Part I Conference Schedule

Oct. 11 ~ Oct. 13, 2013

08:00-18:00	Registration	Location: Optics Valley Kingdom Plaza, Wuhan
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Saturday Morning, Oct.12

Time	Activity	Location: 2 nd floor, The Meeting Hall
09:00-09:20	Opening Ceremony	<i>Dr. Edward J. Ciaccio</i>
09:20-10:20	Keynote Speech 1: <i>Modelling of Cancer Thermal Therapies with a Perspective of Parametric Sensitivity and Improved Treatment Planning</i> , <i>Dr. Ng Yin Kwee</i>	
10:20-10:40	Coffee Break	
10:40-11:40	Keynote Speech 2: <i>Novel Transform and Spectral Estimator for Biomedical Applications</i> , <i>Dr. Edward J. Ciaccio</i>	

Saturday Noon, Oct.12

11:45-13:00	Lunch	Location: 3 rd floor, Peri House Western Restaurant
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Saturday Afternoon, Oct.12

Time	Activity	Location: 2 nd floor, The Meeting Hall
14:30-15:30	Keynote Speech 3: <i>Modeling of Reentrant Ventricular Tachycardia based on Wave front Curvature</i> , <i>Dr. Edward J. Ciaccio</i>	
15:30-15:50	Coffee Break	
15:50-16:20	Keynote Speech 4: <i>Editorial Considerations for Manuscript Submissions</i> , <i>Dr. Edward J. Ciaccio</i>	
16:20-17:20	Keynote Speech 5: <i>Micrleakage-Free Improved Wet Bonding of MMA-TBB Resin to Dentin Etched with 10% Phosphoric Acid in the Presence of Ferric ions</i> , <i>Dr. Nobuo Nakabayashi</i>	

Saturday Evening, Oct.12

17:30-19:00	Dinner	Location: 3 rd floor, Peri House Western Restaurant
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Sunday Morning, Oct.13

Time	Activity	Location: 3 rd floor
08:30-12:00	Oral 1: Biotechnology	At Donghu Hall
	Oral 2: Biomedical Engineering	At Qingchuan Hall
Time	Activity	Location: 3 rd floor, Huanghe Hall
08:30-12:00	Poster 1: Biotechnology	
	Poster 2: Biomedical Engineering	

Sunday Noon, Oct.13

12:00-13:00	Lunch	Location: 3 rd floor, Peri House Western Restaurant
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Sunday Afternoon, Oct.13

13:15-20:00	Gathering at the lobby hall on 13:15pm and going for trip in Wuhan Optics Valley Kingdom Plaza-Hubei Provincial Museum-Yellow Crane Tower-Hubu Xiang-Optics Valley Kingdom Plaza
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Part II Invited Keynote Speakers

Keynote Speaker: *Dr. Ng Yin Kwee*



Dr. Ng Yin Kwee

College of Engineering, Nanyang Technological University,
Singapore

PROFESSIONAL BACKGROUND

Dr. Ng Yin Kwee is an Asso.Professor & Assist. Chair (Alumni) in MAE; Snr. Hall Fellow. Ng obtained a B.Eng (CL I) from Uni. of Newcastle upon Tyne; Ph.D at Cambridge Univ. with a Cambridge Commonwealth Scholarship; PG Diploma in Teaching Higher Edu., NIE-NTU. Published > 315 papers in SCI-IF int. journal (210); int. conf. proceedings (70), textbook chapters (81) and others (22) over the 21 years. Co-edited 10 books on “Cardiac Pumping and Perfusion Engineering” by WSPC Press (2007); “Imaging and Modelling of Human Eye” by Artech House (2008); “Distributed Diagnosis and Home Healthcare, v.1” by ASP (2009); “Performance Evaluation in Breast Imaging, Tumor Detection & Analysis” by ASP (2010); “Distributed Diagnosis and Home Healthcare, v.3” by ASP (2011); “Computational Analysis of Human eye with Applications” by WSPC (2011); and “Human Eye Imaging and Modeling” by CRC (2011); “Multimodality Breast Cancer Imaging” by SPIE (2013); “Human eye imaging and modeling”, “Image Analysis and Modeling in Ophthalmology” & “Ophthalmology Imaging and Applications” by CRC (2013, 2014). Also, he co-authored a text book: “Compressor Instability with Integral Methods” by Springer (2007). Ng is an invited speaker for many international scientific confs/workshops.

His main area of research is thermal imaging, biomedical engineering; computational turbomachinery aerodynamics; marine sustainable energy problems; computational fluid dynamics & computational heat transfer such as laser modelling, bioheat transfer analysis. He is the: Adjunct NUS-National University Hospital Scientist; Editor-in-Chief for the J. of Mechanics in Medicine and Biology; J. Med. Imaging and Health Informatics; and strategy Assoc. Editor-in-Chief for World J. of Clinical Oncology; Assoc. Editor for Int. J. of Rotating Machinery; Computational Fluid Dynamics J. (CFDJ); Int. J. of Breast Cancer, Chinese J. of Medicine, Open Medical Informatics J., Open Numerical Methods J., J. of Healthcare Engg, J. of Scientific Conf. Proceedings, and J. of Bionanoscience; co-chairman for 15th Int. Conf. on Mechanics in Medicine and Biology (2006); co-chair of the working group on thermal imagers under Medical Technology Standards Committee by SPRING, Singapore (handling the international standardisation aspects for thermal imagers for ISO-IEC) etc.

Keynote Speaker: *Dr. Edward J. Ciaccio*



Dr. Edward J. Ciaccio

Department of Medicine, Division of Cardiology, Columbia
University, USA

PROFESSIONAL BACKGROUND

Dr. Edward J. Ciaccio received his MS (1989) and PhD (1993) in bioengineering from Rutgers University. He was staff and research faculty with the Department of Pharmacology, Columbia University Medical Center from 1990 - 2010. From 1996 - 2006 he also taught as an adjunct assistant professor for the Department of Biomedical Engineering at Columbia University and at City College of New York. In 2010 Dr. Ciaccio joined the Department of Medicine - Division of Cardiology, Columbia University Medical Center as a faculty member, and he also works part-time for the Celiac Disease Center at Columbia University. His research focus includes biosignal analysis (cardiac electrophysiology), and bioimage analysis (video capsule studies for celiac disease).

Dr. Ciaccio has received an Established Investigator Award from the American Heart Association (1998), a Paper of the Year Award from Heart Rhythm journal (2008), and is Keynote Speaker at the 2nd International Conference on Biomedical Engineering and Biotechnology, Wuhan, China (2013). He is an assistant editor of the World Journal of Gastroenterology, and an editorial board member of BioMedical Engineering OnLine, Heart Rhythm, Journal of Cardiovascular Electrophysiology, and World Journal of Gastrointestinal Endoscopy. He became editor-in-chief of Computers in Biology and Medicine in January, 2013.

Keynote Speaker: *Dr. Nobuo Nakabayashi*



Dr. Nobuo Nakabayashi

Institute of Biomaterials and Bioengineering,
Tokyo Medical and Dental University, Japan

PROFESSIONAL BACKGROUND

Dr. Nobuo Nakabayashi received his B.S. in 1959, MS. in 1961 and Ph.D. in 1964 from Tokyo Institute of Technology

He published more than 360 original papers on synthesis and evaluation of functional polymers, biomaterials including adhesives to dentin, membranes, blood compatible polymers; more than 120 review articles on biomaterials and dental materials; Co-author of 25 books on chemistry, functional polymers, and biomedical and dental materials. And he wrote a book “Hybridization of Dental Hard Tissues” with David H. Pashley.

Part III Invited keynote Speeches

Keynote Speech 1 *Modelling of Cancer Thermal Therapies with a Perspective Of Parametric Sensitivity And Improved Treatment Planning*

Speaker: *Dr. Ng Yin Kwee*

College of Engineering, Nanyang Technological University, Singapore

Time: 09:20-10:20, Saturday Morning, Oct.12

Location: 2nd floor, The Meeting Hall

Abstract:

Cancer is the leading cause of death in the world. According to WHO in 2008 cancer was responsible for 13% of the total deaths worldwide. In America 1 out of 4 deaths is caused by cancer which constitutes the second highest mortality rate after heart disease. In Singapore it causes the highest number of deaths and is responsible for 1 out of 3 deaths. Although the 5 year survival rate has increased gradually over the past decades, there hasn't been a drastic slump in the cancer related mortality. The gradual improvement in survival rate is attributed to early detection and better treatment modalities. From treatment point of view these factors translate to better diagnostic capabilities and enhanced therapeutic output. The scope of this talk covers the latter which relates to better prognosis owing to improved efficacy of the treatment. There are many treatment modalities that have been used to treat cancer but none of them can be qualified as soul treatment modality for all types and tumour sites. So the researchers resort to different treatments by harnessing its congruent attributes for best results against a particular cancer.

Thermal therapies are the genre of therapies which use the lethal effect of heat for treatment purpose. The presentation covers the improved efficacy of the thermal therapies of capacitive hyperthermia and radiofrequency ablation (RFA). Additionally, it deals with the simulation of bioheat transfer with a novel numerical method which makes use of its meshless characteristic to provide the optimum simulation results.

For particular therapy to be applied, it is imperative that the effect of all the parameters be known perceptively. Firstly, the factors involved in the capacitive hyperthermia were ranked which provided a broader guideline for the emphasis that needs to be cast upon each factor during the therapy.

Additionally, capacitive hyperthermia was analyzed from a physical perspective. Physical parameters like depth of tumour, size of tumour, size of electrodes and position of electrodes were considered and their effect on the maximum achieved temperature inside the biological domain was considered. Treatment index and damage index was defined which are related to

achievement of treatment objective and efficiency of tumour killing respectively.

A novel meshless method known as Radial Basis Collocation Method (RBCM) has been applied to simulate the heterogeneous conduction and bioheat transfer problem. RBCM is a meshless method which uses radial basis function (RBF) interpolation to obtain the solution. RBFs hold many advantages like exponential convergence, less dependence on the dimensionality of the problem, ability to deal with complex geometries and ease of implementation, which can be harnessed to one's benefit. RBCM was successfully applied to simulate the heterogeneous conduction and remained consistent even for extreme heterogeneities. RBCM was successfully applied to solve the bioheat transfer problem. Firstly, a homogeneous bioheat problem was simulated and comparison with the analytical solution showed that RBCM provided accurate solution. Furthermore, RBCM was extended to simulation of heterogeneous bioheat transfer problem. It was concluded that features of RBCM like accuracy, point based data dependency, ease of implementation together with meshless property make it an attractive alternative to the other numerical methods available.

Research was also carried out to analyze the efficacy of radiofrequency ablation (RFA) for varying electrothermal parameters. An attempt has been made to study the RFA for the effect of thermal conductivity, electrical conductivity and blood perfusion rate with Taguchi's design of experiments methodology. Their combined effect was analyzed quantitatively in different tissues. It was found that ablation volume for temperature control algorithm is mostly affected by blood perfusion followed by electrical conductivity and thermal conductivity. Smallest ablation volume was observed in kidney tissue while largest lesion volume was obtained in muscle tissue. Based on the results some insightful corollaries were drawn which may be translated as qualification of RFA for the respective tissue treatment protocol. Moreover, quantification of parameter sensitivity translates to efficient design of control algorithm for power delivery. It is intended that these conclusions will help the radiologist in the treatment planning stage and would serve as broad guidelines for the application of RFA in varying biological environment.

Radiofrequency ablation (RFA) has been increasingly used in treating cancer for multitude of situations for various tissue types. In order to perform the therapy safely and obtain reliable results, the effect of the critical parameters needs to be known beforehand. We have analyzed the effect of electrical conductivity, thermal conductivity and blood perfusion rate of the tumour and surrounding normal tissue on the radiofrequency ablation under the framework of fixed temperature control. Ablation volume was chosen as the characteristic to be optimized and temperature control was achieved via PID controller. The effect of all 6 parameters each having 3 levels was quantified with minimum number of experiments harnessing the Taguchi orthogonal arrays' fractional factorial characteristic. It was observed that as the blood perfusion increases the ablation volume decreases. Electrical conductivity of the tumour and the surrounding normal tissue has an opposite effect on the ablation volume. Increasing electrical conductivity of the tumour results in increase of ablation volume whereas increase in normal tissue conductivity tends to decrease the ablation volume and vice versa. Similarly, increasing thermal conductivity of the tumour results in enhanced ablation volume whereas an increase in thermal conductivity of the surrounding normal tissue has a debilitating effect on the ablation volume and vice versa. With increase in the size of the tumour (i.e., 2cm to 3cm) the effect of each parameter is not harmonious. Their effect changes with change in size of the tumour which is shown by the

different gradient observed in ablation volume. Most important is less sensitivity of ablation volume to blood perfusion rate for smaller tumour size (2 cm) which is also in accordance with the previous results presented in literature.

Finally a research was carried out for accurate prediction of the outcome of the therapy based on the simplified models which are fast and require only very few parameters. These include spherical and ellipsoidal models. FEM simulation showed that the gradient of ablation volume for different tissue types is also different owing to varied electrical and thermal properties. The effect of maximum allowable temperature also affects the shape as well as the evolution of ablation volume. Comparison of simplified models with FEM results was carried out and it was concluded that for various tissues simplified models provide good results with an accuracy of more than 90 percent in some cases. Generally, the prediction is poor at shorter times but however becomes accurate as the treatment time progresses.

Keynote Speech 2 *Novel Transform and Spectral Estimator for*

Biomedical Applications

Speaker: Dr. Edward J. Ciaccio

Department of Medicine, Division of Cardiology, Columbia University, USA

Time: 10:40-11:40, Saturday Morning, Oct.12

Location: 2nd floor, The Meeting Hall

Abstract:

The Discrete Fourier Transform (DFT) is used ubiquitously for biomedical applications to analyze signal and image frequency content. The Wiener–Khinchin theorem states that spectral decomposition of the autocorrelation function is equivalent to the power spectrum of the process. The Fourier method models the autocorrelation function using a general basis consisting of sinusoids. We have developed a discrete novel transform (DNT) which models the autocorrelation function by averaging at lags. The DNT basis functions consist of ensemble means of signal segments having a window length w , which are computed throughout the frequency range of interest, with frequency $f = \text{rate} / w$. The DNT basis functions are data-driven and represent the morphologic features of the signal with respect to frequency f , or equivalently, to periodicity w . The data-driven basis can be useful to reconstruct complicated signals such as fractionated electrograms to any particular level of accuracy, with reduced number of basis functions as compared with Fourier analysis. For spectral analysis, the DFT frequency resolution is proportional to $\text{rate} / \text{time interval}$, while for DNT it is proportional to $\text{rate} / \text{period}^2$. Thus frequency resolution is maintained for DNT even with short analysis windows. Using 8 second analysis intervals, standard for electrocardiologic data, the average frequency resolution of fractionated electrograms with white noise added is 0.29Hz for DFT versus 0.16Hz for DNT. Thus on the average, DNT frequency resolution is about double that of DFT. It was also found that while DFT is accurate to detect the frequency of signal components only to a time resolution of 2 seconds, NSE achieves the same or better accuracy even at a time resolution of 0.5 seconds. Thus use of DFT and DNT in tandem for power spectral analysis can be assistive to evaluate biomedical signals more objectively and accurately, which may lead to improved clinical outcome. The most recent application of the novel transform is to real-time analysis. The

DFT must be recalculated during each time epoch or sliding window for which frequency information is desired when real-time computation is done. However the DNT can be recalculated using the prior information contained in the ensemble means, such that update of the spectral estimate for each incoming sample point can be done computationally with a few multiplication operations, rather than requiring $N \log N$ operations as for the DFT. This drastically improved efficiency can be useful for real-time analysis of multichannel data and for sample-by-sample spectral update even with limited computational power. When more substantial computation power is available, even thousands of multichannels could be spectrally analyzed sample-by-sample in real time. The transform can also be applied to biomedical image data.

Keynote Speech 3 *Modeling of Reentrant Ventricular Tachycardia based on Wavefront Curvature*

Speaker: Dr. Edward J. Ciaccio

Department of Medicine, Division of Cardiology, Columbia University, USA

Time: 14:30-15:30, Saturday Afternoon, Oct.12

Location: 2nd floor, The Meeting Hall

Abstract:

Ventricular tachycardia (VT) is a common heart arrhythmia and a world health problem. The introduction of Western diets heavy in fats and sugar has increased the likelihood of myocardial infarction (MI) in many countries throughout the world. When an MI occurs, the infarcted tissue is rendered nonconducting. Electrical activation must therefore proceed around the infarcted region, through an adjacent region termed the infarct border zone or IBZ. The IBZ is constrained where the infarct is superficial. There is bounded by infarct at depth and by the heart surface. It is at this constrained region from whence VT typically originates. The electrically activating wavefront propagates through the constrained region, after which it bifurcates, curves around in the opposite direction, and then reenters the constrained region. The phenomenon, known as double-loop reentry of the activating wavefront, is a common cause of VT in cardiac patients. Thus even after recovery from an MI, there is the likelihood that VT can occur in such patients at any time, which results in a fast and sometimes irregular heartbeat and the compromise of blood flow, leading to morbidity and mortality. Presently, voltage mapping during electrophysiologic study is used to detect the constrained region, or isthmus, where double-loop reentry can occur. Once this region is detected it can be ablated with radiofrequency energy in the hopes of destroying the arrhythmogenic tissue. At the reentry isthmus, the surviving region of viable tissue is thin resulting in a smaller volume, and therefore lesser voltage level being generated during activation, which is evident in the electrograms recorded from the catheter tip. However, not all low voltage regions of the heart are areas where a reentry isthmus will form. Moreover, for any particular region where detection of a low voltage correctly indicates a location where an isthmus will form, the low voltage map does not provide information concerning how an ablation lesion should be positioned in order to prevent propagation of the impulse during double-loop reentry. Thus follow-up ablation is often needed, which is inconvenient for the patient and adds to the cost of treatment. We have developed a mathematical model of electrical impulse propagation during reentrant VT which is based on IBZ geometry. Where the electrically activating wavefront propagates from a smaller to larger volume of

viable tissue, there is an impedance mismatch, and the leading of the wavefront becomes convex. If the convexity is at a critical level, there will be insufficient current available for forward propagation, and the wavefront will block. We have shown that these conditions occur at the lateral edges of the constrained IBZ, at the boundary between very thin IBZ with adjacent regions where the IBZ becomes much thicker. It is at the lateral boundaries that functional block lines form during reentry. By ablating across the two boundaries, the electrical impulse can then no longer propagate through the constrained region, and therefore double-loop reentry is prevented from recurring. Such a properly placed lesion made by radiofrequency catheter ablation can therefore be used to permanently block the impulse. To visualize the IBZ geometry, magnetic resonance imaging has been utilized, or more recently, optical coherence tomography has been implemented for real-time analysis. Most recently, it has been shown that variation in IBZ thickness change at the isthmus lateral boundaries can lead to discontinuous conduction, which is a source of the electro gram fraction evident in signals recorded from the region.

Keynote Speech 4 *Editorial Considerations for Manuscript*

Submissions

Speaker: *Dr. Edward J. Ciaccio*

Department of Medicine, Division of Cardiology, Columbia University, USA

Time: 15:50-16:20, Saturday Afternoon, Oct.12

Location: 2nd floor, The Meeting Hall

Abstract:

As editor-in-chief of the journal *Computers in Biology and Medicine* since January 2013, I would like to share the insights that I have gained during this period in the submission of scientific manuscripts for journal peer review. The focus of *Computers in Biology and Medicine* includes biomedical informatics and biomedical engineering. Recently at my request, we included biomedical engineering as a keyword for submission. However, even many years ago, biomedical engineering as well as biomedical informatics were acceptable topics for submission to the journal. We are on track to receive well over 600 submissions in 2013, perhaps closer to 700, which is up from 500 submissions in 2012. Working with me to evaluate these manuscripts are six associate editors and over 40 editorial board members. These scientists are located the world over, and collectively represent a huge expertise in the journal focus topics. Our publishing company is Elsevier, the journal has been published for over 40 years, it has a print and online edition, and it is listed in all scientific indexes including PubMed and Medline. There are no fees for publishing and there is not a rigorously set page limit. Fellow editors-in-chief at Elsevier and I keep in contact through annual meetings. I will be attending the upcoming meeting in the autumn of 2013. Such meetings allow editors-in-chief to compare notes and discuss developments across different topics of expertise.

Each editor is different in terms of their particular protocol for the evaluation of manuscripts. This is how I personally have developed the manuscript evaluation process for the journal. With almost 700 submissions expected this year, that is approximately 2 submissions per day on

average. I cannot read each manuscript in its entirety, but I do read the Abstracts and skim the rest of the text, figures, and tables. Firstly in prescreening I check for verbatim copying in the manuscript text. This is a major concern for me. When I see it, I wonder if the rest of the paper is scientifically accurate. If I find multiple instances of verbatim copying in the manuscript I will reject it without further review. If I find a few instances of copying, I note it, and will mention it to the corresponding author upon evaluation of their manuscript. If the reviewers' opinion of the manuscript is borderline, verbatim copying can be a deciding factor in rejection of the manuscript. English grammar is a second major focus for which I prescreen all manuscripts prior to sending them out for review. If the grammar is fair but not perfect, and there are no problems of verbatim copying, I will send it for review but note to the authors that they need to fix it if I ask them to revise. If the English grammar is poor but I think the paper has potential, I will send it back with a request to revise, asking the authors fix it prior to sending it out for further review. When major correction is needed, I suggest either that an English speaker correct it or that they utilize a commercial proofreading company. A third major prescreening focus is whether the topic of the manuscript is a good fit for the journal. I am rather lenient and tend to accept for review most papers with a quantitative and biomedical focus. However, there must be some novel mathematical or computational aspect – papers cannot simply use commercial software programs to analyze biomedical data – such a paper would be more relevant for a biomedical journal, not an engineering and computational journal.

If the submission passes my prescreening process, I send it out for review. I tend to request review from one or two of the author suggested reviewers. However I also ask other reviewers with expertise in the topic to review the article. These may be prior reviewers for *Computers in Biology and Medicine* or new reviewers not associated with the journal. I like to get at least three reviewers, no more than one of which has been suggested by the authors. More reviewers means a better paper. It is as though the authors have sent it through several journals and fixed it up each time according to all the reviewer comments. Many reviewers tend to catch more and have helpful suggestions. When I have difficulty finding sufficient reviewers for a particular manuscript, I turn to my editorial board for assistance. And I expect an even greater reviewing workload from my associate editors. Currently, I allow three weeks for review of a manuscript. It takes at most a day or two for my managing editor to make sure the required information is available with each submission and then send the new submissions to me. It takes at most a day or two for me to find the time to prescreen new submissions that are sent to me (but usually I do it same day). When I send manuscripts out for review, once I receive the reviews back from the referees, it takes at most a day or two for me to read the reviews, review the manuscript and decide on the outcome. Therefore, most manuscripts can be evaluated within 4 weeks. I think this is a strong point to prospective authors, as some journals take many months or even years to evaluate a manuscript. Furthermore, once a manuscript has been accepted by me, all publishing information including journal volume and page numbers is provided within weeks of acceptance.

Keynote Speech 5 *Micrleakage-Free Improved Wet Bonding of MMA-TBB Resin to Dentin Etched with 10% Phosphoric Acid in the Presence of Ferric Ions*

Speaker: Dr. Nobuo Nakabayashi

Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University, Japan

Time: 16:20- 17:20, Saturday Afternoon, Oct.12

Location: 2nd floor, The Meeting Hall

Abstract:

This study was to determine the influence of dissolved dentinal substances in demineralized dentin on the impregnation of monomers to make bonding to dentin possible. It was hypothesized that these substances, including water soluble acidic polyelectrolytes, significantly change the substrates, which could then be assessed by dissolving NaCl, CaCl₂, or FeCl₃ in 10% phosphoric acid. Prepared bovine dentin specimens were etched for 10 s with a solution of 10% phosphoric acid (control) or of 22.0 mM of dissolved NaCl (10P-Na), CaCl₂ (10P-Ca), or FeCl₃ (10P-Fe). The specimens were then rinsed, blot-dried, and primed three times with 5% 4-META in acetone for 60 s. MMA-TBB resin was then applied. The tensile bond strength of each of the dumbbell-shaped specimens was then measured. The fractured surfaces and modified cross-sections were examined by SEM. They were soaked in 6N HCl for 10 s and then in 1% sodium hypochlorite for 30 min to determine the resin content in the hybridized specimens. Shrinkage of the demineralized dentins upon drying was assessed by AFM. Microleakage was examined by soaking the bonded specimens in a fuchsin solution. The tensile bond strengths were 10.8 ± 4.5 (control), 15.0 ± 7.0 (10P-Na), 19.3 ± 5.5 (10P-Ca), 27.8 ± 8.1 (10P-Fe) MPa. The AFM studies showed that Fe³⁺ minimized the shrinkage by drying for 10 s but CaCl₂ and NaCl did not decrease the shrinkage as same as the control. The monomer permeability of wet demineralized dentin is effectively improved by dissolving ferric ions in the phosphoric acid, resulting in a higher bond strength and higher resin content in the hybridized dentin. The dissolved dentinal substances, including the polyelectrolytes, had a significant influence on the characteristics of the demineralized dentin, changing the degree of hybridization and bonding. And microleakage was taken place at the demineralized dentin in the bonded specimens in 10P-0, 10P-Na and 10P-Ca groups, where demineralized dentin was identified by tensile strength measurement, as a defect in bonded specimens.

Part IV Oral Sessions

Oral Presentation

Devices Provided by the Conference Organizer:

- Laptops (with MS-Office & Adobe Reader)
- Projectors & Screen
- Laser Sticks

Materials Provided by the Oral Presenters:

- PowerPoint

Duration of each Presentation (Tentatively):

- Regular Oral Session: 15 Minutes of Presentation, 5 Minutes of Q&A

Oral_1 Biotechnology

Time: Oct.13, 08:30-12:00

Location: 3rd floor, Donghu Hall

Paper ID	Paper Title	Author
BEB1399	Hybrid diffusive/PVD treatments to improve the tribological resistance of Ti-6Al-4V	E. Marin
BEB1477	Modeling the circle of Willis to assess the effect of anatomical variations on the development of unilateral internal carotid artery stenosis	Chi Zhang
BEB1512	The influence of protein concentration on the biotribological properties of the stem-cement interface	Hong-Yu Zhang
BEB1086	Developmental Toxicity of Doxorubicin Hydrochloride in Embryo-larval Stages of Zebrafish	Xindong Zhao
BEB1648	Matching of Feature Points Based on TSSC Method from MR Images of Nonrigid Deformed Tissues	Xubing Zhang
BEB1669	Direct electron transfer of horseradish peroxidase on a functional nanocomplex modified glassy carbon electrode	Jun Hong
BEB1007	A 3D undulatory locomotion system inspired by nematode <i>C. elegans</i>	Deng Xin
BEB1672	Ubiquitous health monitoring and real-time cardiac arrhythmias detection: a case study	Haiying Zhou
BEB1775	An ensemble self-training protein interaction article classifier	Yifei Chen
BEB1912	Urea biosensor based on an extended-base bipolar junction transistor	Hsiu-Li Shieh

BEB1966	The effect of counter-ions on the ion selectivity of potassium and sodium ions in nanopores	Dai Tang
BEB1026	The Pulse Wave Analysis of Normal Pregnancy: Investigating the Gestational Effects on Photoplethysmographic Signals	Fangming Su

Oral_2 Biomedical Engineering

Time: Oct.13, 08:30-12:00

Location: 3rd floor, Qingchuan Hall

Paper ID	Paper Title	Author
BEB2142	IB-LBM simulation on blood cell sorting with a micro-fence structure	Haiqing Xu
BEB2172	Toward continuous ambulatory monitoring using a wearable and wireless ECG-recording system: A study on the effects of signal quality on arrhythmia detection	Tanatorn Tantong
BEB2185	Influence of sheath solvents on the quality of ethyl cellulose nanofibers in a coaxial electrospinning process	Deng-Guang Yu
BEB2287	Numerical validation of a suprasystolic brachial cuff-based method for estimating aortic pressure	Fuyou Liang
BEB2366	A Hurst exponent estimator based on autoregressive power spectrum estimation with order selection	Chin-Chen Chueh
BEB2382	Mucoadhesive polymer films for tissue retraction in laparoscopic surgery: Ex-vivo study on their mechanical properties	Zhigang Wang
BEB2400	Research and Development of Compact Wrist Rehabilitation Robot System	Ikuo Yamamoto
BEB2444	Biomimetic growth of bone-like apatite via simulated body fluid on hydroxyethyl cellulose/polyvinyl alcohol electrospun nanofibers	Sugandha Chalal
BEB1633	Transcriptional suppression of human apolipoproteina4 and apolipoproteinc3 genes by phorbol myristate acetate in hepatic and intestinal cells	Guangping Li
BEB2429	Effect of Nd:YAG laser-nitriding-treated titanium nitride surface over Ti6Al4V substrate on the activity of MC3T3-E1 cells	Min Wang

NOTE: If you want to make an oral presentation but your paper ID is not included in the list, please contact the organizing committee or the session chair to arrange it.

Part V Poster Sessions

Poster Presentation

Materials Provided by the Conference Organizer:

- X Racks & Base Fabric Canvases (60cm×160cm, see the figure below)
- Adhesive Tapes or Clamps

Materials Provided by the Presenters:

- Home-made Posters

Requirement for the Posters:

- Material: not limited, can be posted on the Canvases
- Size: smaller than 60cm×160cm
- Content: for demonstration of the presenter's paper

Requirement for the Presenters:

- Stand beside his (her) Poster through the Session, and discuss with the readers about his (her) paper



Poster_1 Biotechnology

Time: Oct.13, 08:30-12:00

Location: 3rd floor, Huanghe Hall

Paper ID	Paper Title	Author
BEB1014	Non-contact physiological signal detection using continuous wave Doppler radar	Dengyu Qiao
BEB1015	Effects of Mn (II) on peroxynitrite nitrifying fibrinogen	Jianlong Shi
BEB1269	Influence of timing algorithm on brachialankle pulse wave velocity measurement	Xin Sun
BEB1412	A smart capsule system of Gastric Occult Blood Detection	PanPan Qiao
BEB1462	Finite Element Analysis of Dental Implant Neck Effects on Primary Stability and Osseointegration in a Type IV Bone Mandible	You-Min Huang
BEB1566	Activity Analysis of Trunk and Leg Muscles During Whole Body Tilt Exercise	Chang Ho Yu
BEB1635	Study of Parameters for Evaluating the Pushability of Interventional Devices Using Box-shaped Blood Vessel Biomodels Made of PVA-H or Silicone	Chang Ho Yu

BEB1645	Effect of Cycle Ergometer using an MR Rotary Brake on Lower Limb Exercise	Tae Kyu KWON
BEB1700	Development of a Novel Multifunction Patient Monitoring System with 2.4 GHz RF and Power Line Communication	Qun Wei
BEB2456	Analysis of the Strain of the Great Saphenous Vein in Motion	Ming-Chang Tsai
BEB1688	Characteristic Analysis of the Lower Limb Muscular Strength Training System applied with MR Dampers	Tae Kyu KWON
BEB1796	The temperature field simulation of radiofrequency catheter-based renal sympathetic denervation for resistant hypertension	Fei Qu
BEB1998	In vivo evaluation of mastication noise reduction for dual channel implantable microphone	Seong Tak Woo
BEB2061	A 1-Channel 3-Band Wide Dynamic Range Compression Chip for Vibration Transducer of Implantable Hearing Aids	Dong-Wook Kim
BEB2421	In vivo biodegradation of porous silk fibroin films implanted beneath the skin and muscle of the rat	Guoping Guan
BEB1416	A granular computing approach to gene selection	Lin Sun
BEB1438	A combination of pharmacophore modeling, molecular docking and virtual screening for iNOS inhibitors from Chinese herbs	Xing Wang
BEB1531	An ensemble feature selection technique for cancer recognition	Jiucheng Xu
BEB1918	Detection and Measurement of Fetal Abdominal Contour in Ultrasound Images via Local Phase Information and Iterative Randomized Hough Transform	Weiming Wang
BEB2125	Feature selection using mutual information based uncertainty measures for tumor classification	Lin Sun
BEB2432	Quantitative influence of risk factors on blood glucose level	Chen Songjing
BEB2426	Determination of the moment of inertia of the forearm segment using a dynamometer	Youngho Kim Jongsang Son Soonjae Ahn
BEB2518	Microencapsulated rBMMSCs/calcium phosphate cement for bone formation in vivo	Juan Wang
BEB2546	Rapid and Sensitive Controlled Release Monitoring Method of Biomedical Combined Products with IDM for Pain Management and Cancer Treatment	Ching-Cheng Huang
BEB1754	GPU Accelerating Technique for Rendering Implicitly Represented Vasculatures	Qingqi Hong
BEB2208	Novel and efficient tag SNPs selection algorithms	Wen-Pei Chen
BEB1405	Licochalcone A inhibiting proliferation of bladder cancer T24 cells by inducing reactive oxygen species production	angtao Jiang
BEB1927	Electroencephalogram synchronization analysis for attention deficit hyperactivity disorder children	Tian Liu
BEB1767	Numerical Analysis of the Effect of T-tubule Location on Calcium Transient in Ventricular Myocytes	Uduak Z. George
BEB1344	SSiCP: a new SVM based recursive feature elimination algorithm for multiclass cancer classification	Xiaobo Li
BEB1588	Biochemical kinetics of cell proliferation regulated by extremely low frequency electromagnetic field	D. Y. Geng

BEB1108	Tumor classification based on orthogonal linear discriminant analysis	Huiya Wang
BEB1417	Emotion recognition based on the sample entropy of EEG	Xiang Jie
BEB1943	Parallel Acceleration for Modeling of Calcium Dynamics in Cardiac Myocytes	Ke Liu
BEB2169	Improve GRAPPA with Cross-sampled ACS Lines and Nonlinear Kernel Model	Xiaoyan Wang
BEB1021	Acceleration Method of 3D Medical Images Registration Based on Compute Unified Device Architecture	Meng Lu
BEB1101	Comparison of SPECT/CT, MRI and CT in diagnosis of skull base bone invasion in nasopharyngeal carcinoma	Shu-xu Zhang
BEB1393	Cytoplasm segmentation on cervical cell images using graph cut-based approach	Ling Zhang
BEB1192	Optimization of acoustic emitted field of transducer array for ultrasound imaging	Zhengyao He
BEB1360	Volume and Dosimetric Variations During Two-Phase Adaptive Intensity-Modulated Radiotherapy for Locally Advanced Nasopharyngeal Carcinoma	Rui-hao Wang
BEB1701	Cerebral activation and lateralization due to the cognition of a various driving speed difference: An Fmri study	Hyung-Sik Kima
BEB1421	A non-rigid registration method for cerebral DSA images based on forward and inverse stretching – avoiding bilinear interpolation	Bin Liu
BEB1921	Novel lattice Boltzmann method based on integrated edge and region information for medical image segmentation	Wen Junling
BEB1437	Experimental exploration of Mouse kidney imaging with the SR PCI technology	Xia Chenchen
BEB1699	Response time of visual matching task and heart rate in children with Attention Deficit Hyperactivity Disorder (ADHD)	Hyun-Joo Kima
BEB1186	Uncertainty Analysis of Selected Sources of Errors in Bioelectromagnetic Investigations	Tomasz Dlugosz
BEB1884	Value of F-18 FDG PET/CT in detection and prognostication of isolated extra-axillary lymph node recurrences in postoperative breast cancer	Jin KyoungOh
BEB1456	Filter Based Receive-Side Spatial Compounding for Veterinary Ultrasound B-Mode Imaging	Wen Liu
BEB1510	Texture analysis and classification of ultrasound liver images	Shuang Gao
BEB1515	A method of semi-quantifying β -AP in brain PET- CT 11C-PiB images	Jiehui Jiang
BEB2502	Bias Correction for Magnetic Resonance Images via Joint Entropy Regularization	Shanshan Wang
BEB1836	Measuring Temporal Dynamics of Resting-state Fmri Data	Lianghua He
BEB1874	A statistical approach to segmentation of diffusion tensor imaging	Ying Wen
BEB2019	A Novel Spinal Kinematic Analysis using X-Ray Imaging and Vicon Motion Analysis: A Case Study	Dong K. Noh

BEB1949	Evaluation of the accuracy of a common regional registration method for three-dimensional reconstruction of edentulous jaw relation by a 7-axis three-dimensional measuring system	Yuchun Sun
BEB2004	Automatic detection of microcalcifications using mathematical morphology and a support vector machine	Erhu Zhang
BEB2096	A novel edge detection in medical images by fusing of multi-model from different spatial structure clues	Jia Xibin
BEB2475	Mouse Coronary Angiography In Vivo Using Synchrotron Radiation	Lijun Xu
BEB1362	A Removable Hybrid Robot System for Long Bone Fracture Reduction	Tianmiao Wang
BEB1787	Projective invariant biplanar registration of a compact modular orthopaedic robot	Sheng Luan
BEB1748	Fluid dynamics aspects of miniaturized axial-flow blood pump	Can Kang
BEB2416	Design and optimization of multi-class series-parallel linear electromagnetic array artificial muscle	Li Jing
BEB2237	Modeling Bistable behaviors in Morphing Structures through Finite Element Simulations	Qiaohang Guo
BEB1499	Effects of Suture Position on Left Ventricular Fluid Mechanics under Mitral Valve Edge-to-Edge Repair	Dongxing Du
BEB1355	Inter-tester and Intra-tester Reliability of Ultrasound Imaging Measurements of Abdominal Muscles in Adolescents with and without Idiopathic Scoliosis: A Casecontrolled Study	Hoe S. Yang
BEB1309	Hemodynamic Numerical Simulation and Analysis of Oscillatory Blood Flow in growing Aneurysms	Lifang Wang
BEB2316	Gaussian fitting for carotid and radial artery pressure waveforms: comparison between normal subjects and heart failure patients	Chengyu Liu
BEB1478	Shear wave speed estimation by adaptive random sample consensus method	Haoming Lin
BEB1893	The effect of the material property change of anterior cruciate ligament by ageing on joint kinematics and biomechanics under tibial varus/valgus torques	Chao Wan
BEB1928	High cycle fatigue behavior of implant Ti-6Al-4V in air and simulated body fluid	Yong-jie LIU
BEB2150	Nonlinear Dynamic Characteristics of SMA Intravascular Stent under Radial Stochastic Loads	Zhiwen Zhu
BEB2021	Diaphragm Breathing Movement Measurement using Ultrasound and Radiographic Imaging: A Concurrent Validity	Dong K. Noh
BEB1274	Vulnerability during short-term memory induced response in canine ventricle	Hong Zhang
BEB2220	Dextranation of Bio reducible Cationic Polyamide for Systemic Gene Delivery	Chao Lin
BEB2538	Identification of microfluidic two-phase flow patterns in lab-on-chip devices	Zhaochu Yang
BEB1480	A molecule-imprinted polyaniline membrane modified on carbon fiber for detection of glycine	Hongjuan Zeng

BEB1694	Anti-inflammatory effect of Malvidin-3-glucoside and Malvidin-3-galactoside	Wu-Yang Huang
BEB1780	The preparation of gold nanoparticles and evaluation of their immunological function effects on rats	Yong-Tang Wang
BEB1764	Enhanced oral bioavailability and controlled release of dutasteride by a novel dry elixir	Dong-Jin Jang
BEB1198	Research of Arginylglycylaspartic to Promote osteogenesis of Bone Marrow Mesenchymal Cells on Chitosan/ Hydroxyapatite Scaffolds	Z.W Qu

Poster_2 Biomedical Engineering

Time: Oct.13, 08:30-12:00

Location: 3rd floor, Huanghe Hall

Paper ID	Paper Title	Author
BEB1985	Mitral valve function following ischemic cardiomyopathy: a biomechanical perspective	Yonghoon Rim
BEB1024	Effect of curcumin on down-expression of thrombospondin-4 induced by oxidized low-density lipoprotein in mouse macrophages	Zhong-yun Zhou
BEB1090	Time multiplexing method for receive multi-beam processing in ultrasound imaging	Cheng Jin
BEB1096	Fuzzy Speed Function Based Active Contour Model for Segmentation of Pulmonary Nodules	Kan Chen
BEB2505	Measurement of salivary cortisol by a chemiluminescent organic-based immunosensor	N. M. M. Pires
BEB1152	ECG Baseline Wander Correction Based on Mean-median Filter and Empirical Mode Decomposition	Yi Xin
BEB1221	Flow Visualization in the Outflow Cannula of an Axial Blood Pump	Guangmao Liu
BEB1345	Texture feature extraction based on wavelet transform and gray-level co-occurrence matrices applied to osteosarcoma diagnosis	Hu Shan
BEB1182	Evaluation of breast cancer chemotherapy efficacy with multifractal spectrum analysis of magnetic resonance image	Li LI
BEB1215	Validation of an Improved 'Diffeomorphic Demons' Algorithm for Deformable Image Registration in Image-Guided Radiation Therapy	Lu Zhou
BEB1304	4D-CT reconstruction based on pulmonary average CT values	Zhang Shu-xu
BEB1322	Application of the Dual-tree Complex Wavelet Transform in Biomedical Signal Denoising	Fang Wang
BEB1340	The Feasibility of Mapping Dose Distribution of 4DCT Images with Deformable Image Registration in Lung	Hui Yu

BEB1770	Creep bulging deformation of intervertebral disc under axial compression	Bao-Qing Pei
BEB1377	In-line phase contrast micro-CT reconstruction for biomedical specimens	Jian Fu
BEB1864	Reflection Coefficient Detection of Simulation Models for Microwave Imaging Simulation System	Kim Mey Chew
BEB1429	A novel biofuel cell based on electrospun collagen-carbon nanotube nanofibres	W. Zhen
BEB1585	Exploration and Comparison of the Pre-impact Lead Time of Active and Passive Falls Based on Inertial Sensors	Ding Liang
BEB1695	A Supportive Attribute-Assisted Discretization Model for Medical Classification	Derek F. Wong
BEB1592	Adaptive Clutter Filter in 2-D Color Flow imaging based on in vivo I/Q signal	Xiaoming Zhou
BEB1989	Hemodynamic parameters measurements to assess severity of serial lesions in patient specific right coronary artery	Elena S. Bernad
BEB1877	Automatic lung fields segmentation in CT scans using □traight□ysical operation and anatomical information	Jun Lai
BEB2078	Visual Attention Recognition Based on Nonlinear Dynamical Parameters of EEG	Yufeng Ke
BEB2129	Multimodal medical image fusion using improved multi-channel PCNN	Yaqian Zhao
BEB2405	A novel classification method based on ICA and ELM : a case study in lie detection	Yijun xiong
BEB2262	Surface-modified PCL/β-TCP scaffold as a promising delivery system for rhBMP-2 in bone regeneration	Yuanyuan Hu
BEB1815	A Resident's Behavior Simulation Model for Nursing Home Healthcare Services	Chih-Yen Chiang
BEB2156	Comparison between experimentally measured flow patterns for □traight and helical type graft	Sandor I. Bernad
BEB1442	Preparation of DOX/BSANP and Its Antitumor Effect on Bel-7404 Liver Cancer Cells in Vitro and in Vivo	Feng-qin Miao
BEB1879	Synthesis and Characterization of Poly(1,2-propanediol-co-1,8-octanediol-co-citrate) Biodegradable Elastomers for Tissue Engineering	Li Jia
BEB2002	Numerical simulation research to both the external fixation surgery scheme of intertrochanteric fracture and the healing process, and its clinical application	Xian-Kang Wang
BEB2387	Fabrication of Photo-crosslinked Chitosan-Gelatin Scaffold in Sodium Alginate Hydrogel for Chondrocyte Culture	Peng Zhao
BEB1535	Mechanism of action of Salvianolic Acid B by module-based network analysis	Zhenzhen Ren
BEB1885	Computational and experimental determinations of the UV adsorption of polyvinylsilsesquioxane-silica and titanium dioxide hybrids	Derong Lin

BEB1972	Measurement of stapes vibration in Human temporal bones by round window stimulation using a 3-coil transducer	Dong Ho Shin
BEB2024	Performance improved method for subtracted blood volume spectrometry using empirical mode decomposition	Hongzhi Gao
BEB1555	Poly-silicon nanowire sensor for sodium chloride concentration measurement	Yao-Chiang Kan
BEB2492	Change in refractive index of muscle tissue during laser-induced interstitial thermotherapy	Na Chen
BEB1364	Mineralization and Biocompatibility of <i>Antheraea pernyi</i> (A. pernyi) Silk Sericin Film for Potential Bone Tissue Engineering	Mingying Yang
BEB1476	Molecular dynamics simulations for the examination of mechanical properties of hydroxyapatite/ poly α -n-butyl cyanoacrylate under additive manufacturing	Yanen Wang
BEB2090	Study of brain functional network based on sample entropy of EEG under magnetic stimulation at PC6 acupoint	Lei Guo
BEB2239	Cytocompatibility Assessment of the Surface of Titanium after Phosphorylation	Ming-Yue Wu
BEB1002	Study on human promyelocytic leukemia HL-60 cells apoptosis induced by fucosterol	Yu-Bin Ji
BEB1003	Human gastric cancer cell line SGC-7901 apoptosis induced by SFPS-B2 via a mitochondrial-mediated pathway	Yu-Bin Ji
BEB1162	A model to calculate microstreaming-shear stress generated by oscillating microbubbles on the cell membrane in sonoporation	Hao Yu
BEB1358	TLR4 signaling pathway in mouse Lewis lung cancer cells promotes the expression of TGF- β 1 and IL-10 and tumor cells migration	Chun Li
BEB2240	Down-regulation of the androgen receptor ubiquitination and degradation in LNCaP cells by Saposin C	Kai Rena
BEB1286	Enhanced oral bioavailability and antiasthmatic efficacy of curcumin using redispersible dry emulsion	Dong-Jin Jang
BEB1172	Investigation on the decolorizing mechanism of <i>Pseudomonas</i> sp. R1 on reactive red X-3B	Xinping Zeng
BEB1179	Biological characteristics and oxidation mechanism of a new manganese-oxidizing bacteria FM-2	Xinping Zeng
BEB1235	Establishment of dsDNA/GNs/chit/GCE biosensor and electrochemical study on interaction between 6-mercaptopurine and DNA	Xinping Zeng
BEB1112	Qualitative and quantitative analysis of seven oligosaccharides in <i>Morinda officinalis</i> using double-development HPTLC and scanning densitometry	Bin Zhou
BEB2158	Mechanical strength of sutured block copolymers films for load bearing medical applications	Joanna Stasiak
BEB1577	A novel finite element-based patient-specific mitral valve repair: virtual ring annuloplasty	Ahnryul Choi
BEB1413	Interactive Cell Segmentation based on Phase Contrast Optics	Hang Su

BEB2035	A novel liposomal nanomedicine for nitric oxide delivery and breast cancer treatment	Soo Yeon Lee
BEB1287	Improved bioavailability and antiasthmatic efficacy of poorly soluble curcumin-solid dispersion granules obtained using fluid bed granulation	Dong-Jin Jang
BEB1194	Single-slice reconstruction method for helical cone-beam differential phase-contrast CT	Jian Fu
BEB1539	Sparse Coding Induced Transfer learning for HEp-2 Cell Classification	Anan Liu
BEB1055	Application of High-Speed Counter-Current Chromatography for Isolation of Triterpenes from Schisandra Chinensis (Turcz.) Baill and Induction Apoptosis Mechanism of HSC-T6	Bin Li
BEB2497	Osteogenic activity of nanonized pearl powder/poly (lactide-co-glycolide) composite scaffolds for bone tissue engineering	Yueh-Lung Yang
BEB1157	Study of the therapeutic effect of 188Re labeled folate targeting albumin nanoparticle coupled with cis-Diamminedichloroplatinum Cisplatin on human ovarian cancer	Tang Qiusha
BEB1381	Preparation and characterization of silicone rubber/nano-copper nanocomposites for use in intrauterine devices	Yongjun Chen
BEB1146	Nucleation of Hydroxyapatite on Antheraea pernyi (A. pernyi) Silk Fibroin Film	Mingying Yang
BEB1562	New clinical failure mode triggered by a new coronary stent design	Hao-Ming Hsiao
BEB1428	Thermal computed tomography for biological tissue reconstruction based on radiation balance	Xiong Wan
BEB1184	Combined anticalcification treatment of bovine pericardium with decellularization and hyaluronic acid derivative	Deyi Zhu
BEB1636	Hyaluronic acid as an internal phase additive to obtain ofloxacin/PLGA microsphere by double emulsion method	Gang WU
BEB2539	Development of an Optical Fiber Sensor for Angular Displacement Measurements	Gu-In Jung
BEB1284	Fabrication of anticoagulation layer on titanium surface by sequential immobilization of poly (ethylene glycol) and albumin	Chang-Jiang Pan
BEB1945	Size-dependent Adsorption Dynamics, Conformation and Function of Bone Morphogenetic Protein-2 onto Silica Nanoparticles	Ziyu Li

Part VI Hotel Information

1. Hotel Information

Optics Valley Kingdom Plaza is centrally located in the heart of Optics Valley, Wuhan, China, and close proximity to Wuhan Science & Technology Convention & Exhibition Center. Securing a superior geographic location, the hotel is close to East Lake Scenic Spot, Desheng Mountain. It offers fully equipped facilities and unrivalled personalized services.

Location: Wujiawan Bay 1, Hongshan District, Wuhan City, Hubei Province, China.

Tel: +86 027- 87887788

2. How to get to the hotel

- 1) From the Tianhe airport
 - a. Take the shuttle bus to Fujiapo bus station, then take a taxi to the hotel or take No.401 bus, No.18 bus to Wujiawan stop, Luoyu Road
 - b. Take a taxi to the hotel
- 2) From the Wuchang railway station or Hongji bus station
 - a. Take a taxi to the hotel
 - b. Take No.59 or No.593 bus to Wujiawan stop, Luoyu Road
- 3) From the Hankou railway station or Jinjiadun bus station
 - a. Take a taxi to the hotel
 - b. Take the subway line 2 to the last stop-the Optic Vally Square, walk 15 minutes towards the northwest from the exit E
- 4) From the Wuhan railway station
 - a. Take a taxi to the hotel
 - b. Take No.643 bus to the last stop (the Optic Valley Square, Lumo Road), transfer No.401 bus or Num.583 bus to Wujiawan stop, Luoyu Road

Please take me to: 珞瑜路吴家湾，光谷金盾大酒店

3. Map of the hotel



中欧出版社促进中心

中欧出版社促进中心 (European Chinese Publisher Promotion Center, ECPPC) 是荷兰亿派国际构建的一个旨在促进中国和欧洲出版和学术交流的国际合作平台。亿派国际 (Inspirees International) 成立于 2005 年，总部位于荷兰，在中国设有分支机构。ECPPC 下属于亿派图书出版事业部 (Inspirees Books, 亿派图书)。

ECPPC 现在拥有来自十四个国家的 40 余家富有特色的国外出版社。他们之中包含像 Wageningen 学术出版社这样的大学出版社，也有像 Brepols、Olms 这样具有悠久历史、卓越人文社科出版社，以及像世界卫生组织出版社、联合国教科文组织出版社、IOS Press (中国国家科技图书文献中心[NSTL]重点采购的科技和医学出版社)、剑桥学者出版社这样的著名专业出版社。这些出版社每年出版新书 2500 种，学术期刊和数据库近 150 种，几乎涵盖了所有的学科和领域。

2012 年我们推出全新的智能原版图书采选平台 INO™。这是为中国的图书馆、图书供应商和出版社和科研工作者提供的图书元数据服务。平台为德国技术搭建，中英双语，品质卓越。使用户能够简单，精准，智能和高效地采选近千个海外出版社百万种高品质学术图书。详情请参见 www.inbs-online.com/。

中国的用户可以通过现有渠道或者直接享受我们一站式和个性化的图书期刊数据库订购服务。

2013 年我们和武汉鑫艺超学术服务有限公司结成战略合作伙伴，向中国学术用户推出国际学术会议及论文出版服务。在 2013-2014 年我们将推出一系列的高水平国际学术会议并帮助我们的作者发表国际论文。

IOS 出版社电子图书

IOS 出版社电子图书平台(www.ebooks.iospress.nl)于 2005 年启动,并在 2006 年推出。目前已有 800 余种图书可提供电子版。每年新增电子图书 100 种左右,学科范围包括医药科学(神经学、康复学)、计算机科学(人工智能)、电子政务、城市研究等。

此外,研究机构诸如瑞士的苏黎世联邦理工学院,澳大利亚的莫纳什大学,美国国家医学图书馆,美国斯坦福大学,都可进入 IOS 出版社的整个电子图书平台或特定图书系列。台湾学术电子图书暨资料库联盟 TAEBCD,也订购了大约 500 本图书;还有美国退伍军人部也可接入我们的平台(共计约 170 个部门)。从 2010 年起,国家科技图书文献中心(NSTL)一次性订购了 IOS 出版社的全部 90 余种期刊,凸显了其学术内容的高品质。

IOS 出版社的电子图书系列中,出版卷数最多的系列是《医疗科技及资讯研究》系列和《人工智能的前沿和应用》系列,每年出版 10 卷左右。所有的图书都是英语图书,可供包括学术科研人员、专业技术人员及工程师、决策者及政策制定者、研究生和临床医生等人群参考阅读。IOS 的电子图书特色:

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- 灵活的购买模式,如订购一个系列或订购所有图书,按次购买
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- 通过“my access”来查看可以获取的内容。文前部分,目录,作者索引,主题索引,摘要等都可免费获取。
- 开放获取。在“Open Access”标签下的图书可供免费阅读或下载
- 按主题词浏览

特别赠送和优惠:我们将为参加 iCBEB 2013 的老师和专家提供 IOS 出版社生物工程及生物医学领域的优秀期刊(免费)和图书(优惠价购买)。数量有限,送完售完即止。

亿派创造性艺术治疗学院

亿派创造性艺术治疗学院 (Inspirees Institute of Creative Arts Therapy, IICAT) 是具有国际水准的创造性艺术治疗专业培训机构。学院的使命是通过创新型和人性化的教育激发人的身体和思想，促进身心整合，充分发挥个体的潜能。为中国培养高端和有国际视野的创造性艺术治疗专业人才。IICAT 是荷兰亿派国际 (Inspirees International) 创立的，下属于亿派教育 (Inspirees Education，亿派教育)。

IICAT 是目前中国和亚洲唯一进行美国舞蹈治疗协会 (ADTA, American Dance Therapy Association) 全体系职业认证培训的机构 (<http://www.adta.org/AlternateRoute>)。目前在北京、上海和香港常年开设有非脱产的系统培训。是中国舞蹈治疗学科的领军机构。详情参见 www.dancetherapy.cn。

舞蹈 (动作) 治疗 (Dance/Movement Therapy) 是一种特殊的心理治疗方式，它利用非表演性的舞蹈动作或即兴动作的方式治疗个人在社会、情感、认知以及身体方面的障碍以达到增强个人意识、改善心智并促进社会整合的目的。它最大的优势是通过身体动作 (非言语) 作为载体有效提高个人内心表达，探索和疗愈身心灵。舞蹈治疗是上世纪 30 年代在创造性舞蹈动作，心理学和动作分析基础上建立起来的学科。和音乐治疗，戏剧治疗，心理剧治疗，绘画治疗等都归为创造性艺术治疗门类之下。在职业教育，科研和应用及临床实践方面，ADTA 走在了世界的最前列，目前 ADTA 拥有自己的学术杂志 《[The American Journal of Dance Therapy](#)》，由世界知名学术出版社斯普林格 (Springer) 出版社出版。舞蹈治疗在临床身心治疗和康复、社区、教育和企业各个方面针对病患和正常人群都有着广泛的应用。

IICAT 的学术顾问委员会及教师团队由来自 ADTA 的近 10 位专家教授组成，包括 Helen Payne 教授 ([Hertfordshire 大学](#) 心理治疗系教授, 《[Body, Movement and Dance in Psychotherapy](#)》学术期刊主编, 英国舞蹈动作精神治疗协会奠基人及前任主席), Brian Feldman 博士 (著名荣格精神分析师及学者, 儿童自闭症与家, 前斯坦福大学医学院儿童临床精神系培训主任), Elissa White (舞蹈治疗奠基人 Marian Chace 嫡传弟子, ADTA 前任主席, 舞蹈治疗权威) 等等。他们正在和 IICAT 一起在职业培训、临床实习及科研工作等各个层面全面推动整个舞蹈动作治疗学科在中国的建设和发展。目前，舞蹈动作治疗已经在包括上海交大附属医院等部分医疗机构有所开展。



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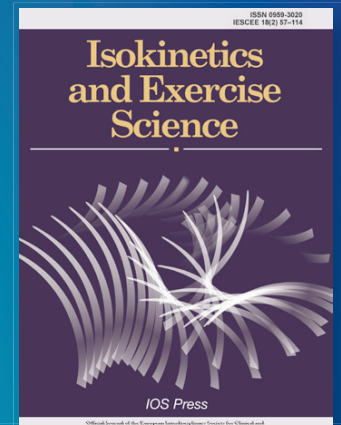
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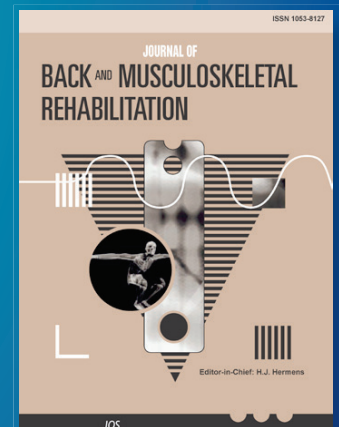
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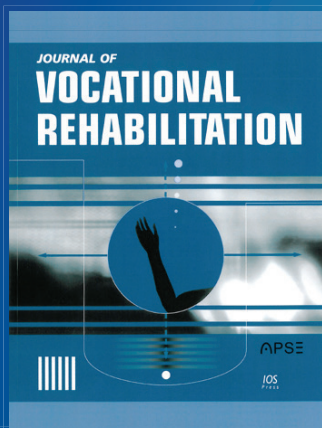
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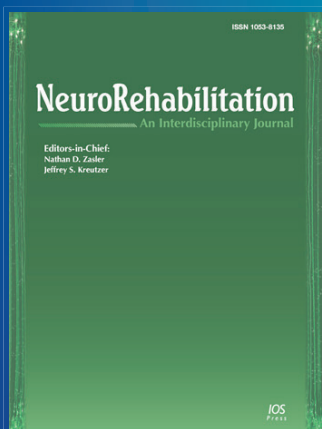
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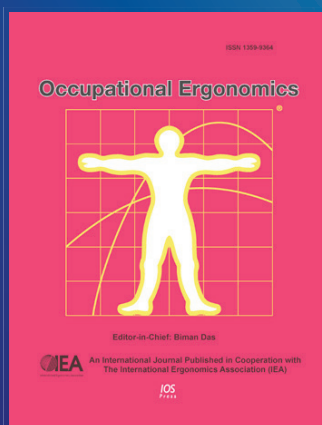
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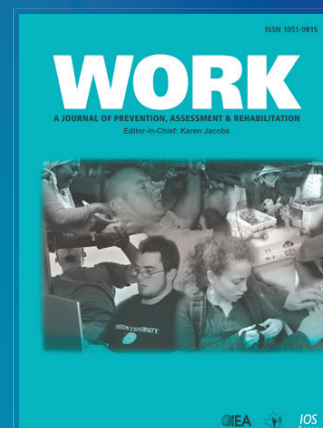
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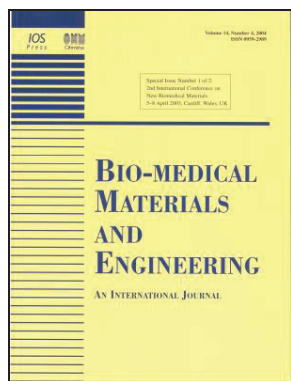
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Contents Volume 23, Number 5 (2013)

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DOI 10.3233/BME-130759

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DOI 10.3233/BME-130760

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Experimental evaluation and theoretical modeling of oxygen transfer rate for the newly developed hollow fiber bioreactor with three compartments / *A. Hilal-Alnaqbi, A.-H.I. Mourad, B.F. Yousef and J.D.S. Gaylor*
DOI 10.3233/BME-130762
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DOI 10.3233/BME-130763

Artery cross-clamping during laparoscopic vascular surgeries; a computational tactile sensing approach / *P. Pahlavan, S. Najarian, E. Afshari and M. Moini*
DOI 10.3233/BME-130764

An integrated approach of topology optimized design and selective laser melting process for titanium implants materials / *D. Xiao, Y. Yang, X. Su, D. Wang and J. Sun*
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