

# 7<sup>th</sup> CONGRESS OF THE INTERNATIONAL SOCIETY FOR MUSCULOSKELETAL SHOCKWAVE THERAPY

**ISMST**



**1<sup>st</sup> – 4<sup>th</sup> April, 2004  
Kaohsiung / Taiwan  
The Grand Hotel  
Dragon Phoenix Hall**

## The Organising Committee

C.J. Wang,	Taiwan
K. D. Yang,	Taiwan
F.S. Wang	Taiwan
J.Y. Kuo,	Taiwan
J.W. Wang,	Taiwan
R. W.-W. Hsu,	Taiwan
Y. J. Chen	Taiwan
V. Auersperg,	Austria
W. Schaden,	Austria
R. Thiele,	Germany

## PROGRAM

### Thursday, 1 April

2.00 – 4.00  
p.m. Preregistration:  
The Grand Hotel / Dragon Phoenix Hall

4.00 – 6.00  
p.m. Meeting of the Managing Board  
The Grand Hotel

### Friday, 2 April

8.00 – 12.00  
a.m. Registration

8.30 – 9.00  
a.m. Welcome Addresses, Opening of the Conference  
( C.J. Wang, M.H. Huang, Taiwan, H. Kuderna, Austria)

#### Presentation of the Shockwave-Award of the ISMST

## Scientific Program

### Principles of Shockwaves

Chairmen: Dr. W. Schaden; Dr. Gwo-Jaw Wang

9.00 – 9.20  
a.m. 1 Physical Principles of Shockwave Therapy  
( O. Wess, Switzerland)

9.20 – 9.40  
a.m. 2 Biological Response of Musculoskeletal Shockwave Therapy  
( C.-J. Wang, Taiwan)

9.40 – 9.50  
a.m. Discussion

### I. Session: Shoulder

Chairmen: Dr. V. Auersperg; Dr. Jih-Yang Ko

10.00 – 10.10  
a.m. 3 Extracorporeal Shockwave Therapy (ESWT) for Calcified Tendinitis  
of the Shoulder: A Short-Term Follow-up  
( Chin-Jung Hsu, Horng-Chaung Hsu, Kuo-Fung Tseng, Wen-Hong Lee, Taiwan)

10.10 – 10.20  
a.m. 4 50 Calcifying Shoulder Tendinitis Treated with ESWT. Histological  
Observation in Failures.  
( M. Branes, L. Guiloff, J. Ritz, Chile )

- |                       |   |
|-----------------------|---|
| 10.20 – 10.30<br>a.m. | 5 Musculoskeletal Shockwave Therapy for the Treatment of Tendinosis Calcarea 1800 Cases - 5 Years Follow up<br>( R. Thiele, Th. Hartmann, S. Marx, Germany) |
| 10.30 – 10.50<br>a.m. | 6 Principles of Shockwave Treatment for Calcifying Tendinosis of the Shoulder<br>( L. Gerdesmeyer, Germany)   |
| 10.50 – 11.00<br>a.m. | Discussion  |
| 11.00 – 11.20<br>a.m. | Coffee break  |

## II. Session: Elbow

Chairmen: Dr. H. Kuderna; Dr. R. W.-W. Hsu

- |                       |  |
|-----------------------|--|
| 11.20 – 11.30<br>a.m. | 7 Extracorporeal Shockwave Therapy in Patients with Lateral Epicondylitis of the Elbow ( Tennis Elbow) – Preliminary Results<br>(Shou-Chi Wang, Horng-Chaung Hsu, Kuo-Fung Tseng, Wen-Hong Lee, Chin-Jung Hsu,<br>Der-Yean Wang, Mao-Jen Lin, Mon-Yih Chen, Taiwan ) |
| 11.30 – 11.40<br>a.m. | 8 Clinical Outcome of Epicondylitis After ESWT at AKH Linz Monocentric Follow up Study 1992-2002<br>( V. Auersperg, N. Poulos, G. Labek, M. Ziernhöld, G. Hipmair, Austria)  |
| 11.40 – 11.50<br>a.m. | 9 ESWT for Soft Tissue Pathologies: Case Review<br>( P. R. Rockett, A. C. Souza, P. R. dos Santos, Brazil)   |
| 11.50 – 12.10<br>p.m. | 1 Principles of Shockwave Treatment for Lateral Epicondylitis<br>0 ( R. Thiele, Germany)   |
| 12.10 - 12.30<br>p.m. | Discussion   |
| 12.30 – 2.00<br>p.m.  | Lunch  |

## III. Session: Basic Research I

Chairmen: Dr. M. Branes; Dr. Chun-Hsiung Shih

- |                     |  |
|---------------------|--|
| 2.00 – 2.15<br>p.m. | 1 Hypothesis Towards Associative Pain Memory and Pain<br>1 Management by Shockwave Therapy<br>( O. Wess, Germany)  |
| 2.15 – 2.25<br>p.m. | 1 Shockwave Attenuates Interleukin-1beta, Cyclooxygenase-2 and<br>2 Prostaglandin E2 Receptor Expressions During Healing of<br><br>Collagenase-Induced Achilles Tendinitis in Rats<br>( Yeung-Jen Chen, Feng-Sheng Wang; Ching-Jen Wang; Kuender D. Yang; Yur-Ren Kuo; Hui-Chen Huang; Yu-Ting Huang; Yi-Chih Sun, Taiwan) |

2.25 – 2.35 p.m.	1 3	Outline of the Molecularbiological Effects of the Extracorporeal Shockwaves (ESW) on the Human Organism ( H. Neuland, Z. Kesselman-Evans, H.-J. Duchstein, W. P. Mei, Germany)
2.35 – 2.45 p.m.	1 4	Antibacterial Effectiveness of High-Energetic Extracorporeal Shockwaves ( L. Gerdesmeyer, H. Gollwitzer, C. Horn, M. Henne, Germany )
2.45 – 2.55 p.m.	1 5	Electro-Magnetic Impedance Measurement For Detachment and as Neutral Control of the Triggerpoint Shockwave Therapy ( H. Neuland, Z. Kesselman-Evans, Germany)
2.55 – 3.15 p.m.	1 6	Principles of Basic Research in Shockwave Therapy (Summary and Future Aspects) ( C.-J. Wang, Taiwan)
3.15 – 4.00 p.m		Discussion
4.00 – 4.30 p.m.		Coffee break

#### **IV. Session: Heel**

Chairmen: Dr. R. Thiele; Dr. Tain-Hsiung Chen

4.30 – 4.40 p.m.	1 7	Clinical Application of Extracorporeal Shockwave Therapy in the Treatment of Plantar Fasciitis ( Wen-Hong Lee, Horng-Chaung Hsu, Kuo-Fung Tseng, Chin-Jung Hsu, Taiwan)
4.40 – 4.50 p.m.	1 8	The Effectiveness of Extracorporeal Shockwave Therapy in 353 Patients With Chronic Plantar Fasciitis ( Kimberly M. Eickmeier, Donald M. Norris, Bruce R. Werber, USA)
4.50 – 5.00 p.m.	1 9	Placebo Controlled Trial to Prove Efficacy of Radial Shockwave Therapy (rESWT) in Chronic Plantar Heel Pain ( L. Gerdesmeyer, M. Henne, Germany)
5.00 – 5.10 p.m.	2 0	Extracorporeal Shockwave Treatment in the Management of Achilles Enthesiopathy ( R. F. Martin, USA)
5.10 – 5.30 p.m.	2 1	Dose-dependent Effect of Shock Wave Therapy in the Treatment of Chronic Plantar Fasciitis (R. W. W. Hsu, Chih-Hung Chen, Kuo-Ti Peng)
5.30 – 5.40 p.m.	2 2	Principles of Shockwave Therapy for the Treatment of Plantar Fasciitis ( V. Auersperg, Austria)
5.40 – 6.30 p.m.		Discussion
6.30 – 6.40 p.m.		Annual General Meeting of the ISMST ( AGM )

## Saturday, 3 April

### V. Session: Basic Research II

Chairmen: Dr. P. R. Rockett; Dr. Po-Quang Chen

- 9.00 – 9.10 a.m.      2 Recruitment of Mesenchymal Stem Cells and Expression of TGF-  
3 beta1 and VEGF in the Early Stage of Shockwave-Promoted Bone  
Regeneration of Segmental Defect in Rats  
( Feng-Sheng Wang; Ching-Jen Wang; Yeung-Jen Chen; Kuender D. Yang; Yur-Ren  
Kuo; Hui-Chen Huang; Yu-Ting Huang; Yi-Chih Sun, Taiwan)
- 9.10 – 9.20 a.m.      2 Extracorporeal Shockwave Triggers Repair of Tibial Non-Union - An  
4 Experiment in Rabbits Model  
( Guo X, Hui CC, Chan CW, Kwong SC, Cheng JCY, Hong Kong)
- 9.20 – 9.30 a.m.      2 Ex Vivo Shockwave Treatment Enhances Bone Growth of  
5 Mesenchymal Cells From Human Umbilical Cord Blood in SCID Mice  
( Kuender D. Yang ,Chi-Chin, Chiu, Feng-Sheng Wang , Hui-Cheng Huang, Te-Yao  
Hsu,  
Chia-Yo Ou , Ching-Jen Wang, Taiwan)
- 9.30 – 9.40 a.m.      2 TGF-beta1 and ERK-Dependent Cbfa1/Runx2 Pathways Mediate  
6 Shock Wave Promotion of Osteoprotegerin Synthesis and  
Osteoclastogenesis-Inhibitory Activity of Bone-Marrow Stromal Cells  
( Feng-Sheng Wang; Ching-Jen Wang; Yeung-Jen Chen; Kuender D. Yang; Yur-Ren  
Kuo;  
Hui-Chen Huang; Yu-Ting Huang; Yi-Chih Sun, Taiwan)
- 9.40 – 10.00 a.m.      Discussion

### VI. Session: Basic Research III

Chairmen: Dr. L.Gerdesmeyer; Dr. Kuender D. Yang

- 10.00 – 10.10 a.m.      2 MRI Evaluation of Shock Wave Therapy on Free Tendon Graft in  
7 Tibial Tunnel in a Rabbit Model  
( Chung-Cheng Huang, Ching-Jen Wang, Keunder Yang, Feng-Sheng Wang, Sheung-  
Fat Ko, Jih-Yang Ko, Taiwan)
- 10.10 – 10.20 a.m.      2 The Effect of Shockwave Treatment at The Tendon -Bone Interface -  
8 A Histomorphological and Biomechanical Study in Rabbits  
( Ching-Jen Wang , Feng-Sheng Wang , Kuender D. Yang , Lin-Hsiu Weng, Taiwan)
- 10.20 – 10.40 a.m.      2 The Mechanism of Shockwave Therapy in Bone Healing. A Study in  
9 a Rabbit Model  
( Ching-Jen Wang , Feng-Sheng Wang , Kuender D. Yang , Lin-Hsiu Weng, Taiwan)
- 10.40 – 11.00 a.m.      Discussion
- 11.00 – 11.30 a.m.      Coffee break

## VII. Session: Avascular Osteonecrosis

Chairmen: Dr. R. Saggini; Dr. Chun-Hsiung Huang

- |                       |        |   |
|-----------------------|--------|---|
| 11.30 – 11.40<br>a.m. | 3<br>0 | The Treatment of Adult Femoral Head Necrosis with ESWT<br>( G. Xing, China)   |
| 11.40 – 11.50<br>a.m. | 3<br>1 | Shockwave Treatment for Early Avascular Necrosis of the Femoral<br>Head<br>( Ching-Jen Wang, Feng-Sheng Wang, Kuender D. Yang, Lin-Hsiu Weng, Chung-<br>Cheng Huang, Taiwan)  |
| 11.50 – 12.00<br>p.m. | 3<br>2 | MRI Controlled Four Year-Results of Extracorporeal- Shockwave-<br>Therapy in Adult Osteonecrosis of the Femoral Head<br>(S. Lauber, H.-J. Lauber, J. Ludwig, Germany)   |
| 12.00 – 12.10<br>p.m. | 3<br>3 | A Preliminary Comparative Histomorphological and<br>Immunohistochemical Analysis of Avascular Necrosis of the Femoral<br>Head in Patients Before and After High-Energy Shockwave Therapy<br>( Hsuan-Ying Huang, Ching-Jen Wang, Taiwan) |
| 12.10 – 12.20<br>p.m. | 3<br>4 | Extracorporeal Shockwave Therapy for Adult Osteochondritis<br>dissecans of the Femoral Condyle and the Talus<br>(R. Thiele, S. Marx, J.Ludwig, Chr.Herbert, Germany)  |
| 12.20 – 12.45<br>p.m. |        | Discussion  |
| 12.45 – 2.00<br>p.m.  |        | Lunch   |

## VIII. Session: Bone Pathologies

Chairmen: Dr. A.C. Souza; Dr. Hwa-Chang Liu

- |                     |        |  |
|---------------------|--------|--|
| 2.00 – 2.10<br>p.m. | 3<br>5 | The Treatment of Scaphoid and the Fifth Metatarsus Non-Union With<br>Shockwave Therapy : Story of Cases<br>( A. C. Souza, P. R. Rockett, Brazil)   |
| 2.10 – 2.20<br>p.m. | 3<br>6 | Non-Union and Delayed Union Treated With ESWT. Initial<br>Experience.<br>( L. Guiloff, M. Branes, J. Ritz, Chile)  |
| 2.20 – 2.30<br>p.m. | 3<br>7 | ESWT for Tibia Non-Unions<br>( W. Schaden, A. Sailer, A. Fischer, E. Karadas, Austria)   |
| 2.30 – 2.40<br>p.m. | 3<br>8 | The Effects of Extra-Corporeal Shockwave Therapy (ESWT) on<br>Fracture Non-Union: A Short-Term Follow-Up of at Least 12 Months.<br>( Kuo-Fung Tseng, Horng-Chaung Hsu, Wen-Hong Lee, Chin-Jung Hsu, Shou-Chi<br>Wang,<br>Mou-Jen Lin, Hsien-Te Chen, Wei-Chun Lin, Taiwan) |

2.40 – 2.50 p.m.	3 9	High-Energy Shockwave in the Treatment of Nonunion of Long Bone (R. W. W. Hsu, Kuo-Ti Peng, Chih-Hung Chen)
2.50 – 3.00 p.m.	4 0	Principles of Shockwave Treatment for Non-Unions ( W. Schaden, Austria)
3.00 – 3.30 p.m.		Discussion
3.30 – 5.30 p.m.		Kaohsiung City and Harbor Tour
6.00 – 9.00 p.m.		Reception Banquet

## Sunday, 4 April

### IX. Session: Miscellaneous

Chairmen: W. Schaden; Dr. Wun-Jer Shen

9.00 – 9.10 a.m.	4 1	Effect of Shockwave Therapy in a Patient with Upper Limb Spasticity: a Clinical and Neurophysiologic Study ( E. Amelio, P. Manganotti, Italy)
9.10 – 9.20 a.m.	4 2	ESWT for the Treatment of Complex Joint Rigidity. Long Term Results ( R.Saggini, Italy)
9.20 – 9.30 a.m.	4 3	ESWT for Treatment of Myositis Ossificant Post Traumatic. Medium Term Results ( R. Saggini, Italy)
9.30 – 9.40 a.m.	4 4	Automatic Gap-Adjusted Electrodes for Electrohydraulic Shockwave Generators ( Long-Ray Wan, Ioannis Manousakas, Shen-Min Liang, Chien-Chen Chang, Taiwan)
9.40 – 9.50 a.m.	4 5	Simultaneous Local Anaesthesia Deteriorates Clinical Outcome for Repetitive Low-Energy ESWT for Chronic Plantar Fasciitis ( V. Auersperg, G. Labek, M. Ziernhöld, N. Poullos, J.D. Rompe, N. Böhler, Austria, Germany)
9.50 – 10.05 a.m.	4 6	The Future of ESWT in Medicin – Scientific and Economic Aspects ( W. Schaden, Austria)
10.05 – 10.30 a.m.		Round Table Discussion (C.J. Wang, A. Auersperg, R. Thiele, L. Gerdesmeyer, W. Schaden)
10.30 – 11.30 a.m.		Closing Remark C.J. Wang, President of the ISMST
11.30 – 12.00 a.m.		Speech by the Incoming President Invitation to the 8 <sup>th</sup> Congress of the ISMST in Vienna, Austria V. Auersperg

