

23rd World Congress of the International Society for Medical Shockwave Treatment



On-site Program

November 04 – 05, 2021 | Austria



General Information

→ ORGANIZER

Austrian Workers' Compensation Board (AUVA)
Head Office
Vienna Twin Towers
Wienerbergstrasse 11
1100 Vienna | Austria

→ SCIENTIFIC ORGANIZATION

Wolfgang Schaden, AUVA

President of the ISMST

Rainer Mittermayr, AUVA

Scientific Congress Secretary

→ INFORMATION AND ORGANIZATION

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→ REGISTRATION AND PAYMENT

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→ CONGRESS LANGUAGE

The official congress language is English.

→ CONGRESS WEBSITE

<https://www.shockwavetherapy.org>

→ CONFERENCE VENUE

Hotel Savoyen Vienna

Rennweg 16

1030 Vienna | Austria

Phone: +43 1 206 33-9109

savoyen@austria-trend.at

→ APPROBATION

For the event, Austrian DFP credits will be requested at the Austrian Medical Chamber. These credits are convertible for the respective country.

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ENSHOCK FOCUS ON HEALING



More information
www.zimmer.de/en

Welcome letter of the President of the ISMST

Dear Colleagues and Friends, dear Shockwave Family,

we all suffered under the terrible pandemic the last two years, but I hope that you and your families stayed healthy in these difficult times. Since several vaccines have now received their approval and the vaccination coverage rate is very high, especially in the medical professions, I am confident that our congress can take place as a "live event". We will go ahead with the preparations under the assumption that we are able to meet in person and celebrate our meeting with a personal exchange of experiences, as we have done over the last two decades.

@bettinagreslehner



I want to welcome you all personally to the 23rd International Congress in Vienna. Indeed, it was in Vienna that, on 14 June, 1997, our society was founded by a small group of physicians fascinated by this new technology that appeared to have such huge potential to help our patients without significant adverse side-effects or risks.

Right from the outset, we were keen to ensure that our society remained open-minded, welcoming new ideas, concepts and theories.

Most of our members were orthopaedic surgeons dealing with the 'classic' four indications: tennis elbow, heel spur, shoulder calcifications, and bone non-unions. Back then, shockwave treatment was regarded as some sort of 'voodoo therapy', so our first objective was to produce evidence to gain acceptance within the 'scientific community'. And it was a long and rocky road to obtain funding for the first clinical studies to perform randomized controlled trials. Once we had demonstrated the efficacy and safety of ESWT, we became more and more interested in the working mechanism of this wonderful tool. By then, our society was attracting extremely committed researchers keen to help us understand the mechanism that underlies shockwaves.

We developed a new understanding of the way shockwaves act on biological tissue: mechano-transduction describes the fact that shockwaves (mechanical impulses such as pressure, shear and tensile forces) are translated into biological signals that activate genes. Groups of genes then start to produce proteins (growth factors, etc.) which successfully trigger regenerative processes in pathological tissue. Even the body's own stem cells can be activated to regenerate the affected area under the influence of shockwaves.

Meanwhile, interest in shockwave technology is steadily growing and spreading all over the world. So much so that the ISMST society now comprises almost 400 members from 60 countries across all continents.

Thanks to our society's open-minded approach, we were able to broaden the scope of shockwave technology from the 'classic four' to practically all disciplines of medicine. Indeed, ESWT is now used for all kinds of tendon and bone pathologies, wound healing disorders, pathologies in urology and sexual medicine, neurological pathologies such as spasticity, polyneuropathy, carpal tunnel syndrome, M. Alzheimer and muscle pathologies.

Clinical trials are underway in thoracic surgery, applying shockwaves to the open heart to stimulate heart muscle regeneration and, for patients with acute spinal cord injuries, as a causal therapy to modulate initial inflammation and stimulate early nerve regeneration.

It is thanks solely to the passionate commitment of our society's members that this phenomenal development has been possible.

And so, as you prepare to travel to Vienna, I am certain that you can look forward to another exciting congress packed with all the latest insights into the fascinating field that is shockwave medicine.

Take care and stay healthy,

Wolfgang Schaden
President of the ISMST



Dear Colleagues and Friends, dear Shockwave Family,

It is my particular pleasure and honor as the Conference Secretary to welcome you in Vienna for the 23rd International Conference on Shockwave Therapy.

After a very long and demanding time in this pandemic with many hardships, I am convinced that our congress in November 2021 will be a very special event for all of us. Although technological progress already gives us the excellent possibility to exchange online, I believe that our society has always lived from the personal exchange.

It is already the second time that this unique society and its members come together in the center of Europe, in beautiful Vienna. Beyond, we feel proud that one of the founders of our society – Wolfgang Schaden – will host this conference.

Vienna is known for its cultural diversity and the peaceful living together of a multicultural community (190 nations) in an environment of the highest quality of life. In my opinion, these qualities are perfectly reflected also by our society making it more a family than an association. Vienna is named for the most livable city in the world already for the 10th time. Vienna is world-famous for its exceptional music and cultural diversity performed at historic places from the Musikverein to the renowned Kunsthistorisches Museum. At a walk through relaxing green spaces, parks and gardens you will pass by places of the magnificent imperial heritage like Schönbrunn Palace, Hofburg Palace, and Belvedere Palace, which is in the direct vicinity of our meeting venue, Hotel Savoyen.

At this inspiring place, we will experience a new program format, which we believe is in equal measure, innovative and exciting. We endeavored to organize sessions dedicated to different disciplines, also including previously under-recognized scopes of application (eg, urology and sexual medicine). We are convinced that this change will further expand our perception of shockwave treatment. Furthermore, we intend to have several keynote lectures per session, which will be given by world-leading experts.

We also have the pleasure to invite you to outstanding social events, which will give us the occasion to share our knowledge in pleasant surroundings, do networking, and to make personal contacts.

We hope for your numerous active and enthusiastic participation in this 23rd international congress of the ISMST.

I am looking forward to welcoming you all in Vienna and sharing with you the latest insights in shockwave medicine.

Rainer Mittermayr
Scientific Congress Secretary



Visit us at our booth!

As a reliable partner to physicians, we are shaping a piece of medical progress – in the service of new therapeutic procedures. The goal of our physicists and engineers is to further develop shock wave technology, to develop new device concepts and to open up new indications in close cooperation with leading medical institutes.

ESWT – Extracorporeal Shock Wave Therapy

The wide range of indications in orthopaedics, physiotherapy and rehabilitation medicine is ideally covered by STORZ MEDICAL with focused and radial shock wave therapy. This is precisely that makes the DUOLITH® SD1 »ultra« combined shock wave device and the radial MASTERPULS® line the most successful ESWT systems on the market today.

Convince yourself and meet our products and product specialists in the ISMST industrial exhibition hall.

EMTT – Extracorporeal Magnetotransduction Therapy

EMTT with the MAGNETOLITH® is a non-invasive, outpatient treatment solution in which painful areas of the body are treated with high-energy magnetic pulses using a high oscillation frequency. EMTT opens up new possibilities in regeneration and rehabilitation.



Focused Shock Wave Therapy



Radial Shock Wave Therapy



Extracorporeal Magnetotransduction Therapy





MAIN TOPICS

- 1. ESWT in Sports Medicine
- 2. Basic Research
- 3. 25+1 Years DIGEST
- 4. ESWT in Pain and Myofascial Treatment
- 5. Radial Pressure Waves in Physiotherapy and Professional Sports
- 6. ESWT in Urology and Sexual Medicine
- 7. ESWT in Disturbed Wound Healing
- 8. ESWT in Neurological Pathologies
- 9. Recent Developments of ESWT in Orthopedics and Traumatology

→ SCIENTIFIC COMMITTEE

Cristina D'Agostino, Italy

José Ramón Aranzabal, Spain

Richard Crevenna, Austria

José Eid, Brasil

Ludger Gerdesmeyer, Germany

Irwin Goldstein, United States of America

David Hercher, Austria

Johannes Holfeld, Austria

Karsten Knobloch, Germany

Carlos Leal, Colombia

Daniel Moya, Argentina

Hannes Müller-Ehrenberg, Germany

Tomáš Nedělka, Czech Republic

Silvia Ramon (†), Spain

Jens Rassweiler, Germany

Martin Ringeisen, Germany


Sergej Thiele, Germany

Program Overview

WEDNESDAY, NOVEMBER 03, 2021

As of 15.00 **Registration**
19.00-22.00 Welcome Cocktail at the Hotel Savoyen | Foyer

THURSDAY, NOVEMBER 04, 2021

 **VENUE** Hotel Savoyen | room: Olympia Mancini 1 & 2 (Ground Floor)

As of 07.30 **Congress Registration** and Wake-up Coffee

08.30 **OPENING CEREMONY**

→ **1. ESWT in Sports Medicine**

Coffee Break

→ **2. Basic Research**

Lunch Break

→ **3. 25+1 Years DIGEST**

Coffee Break

→ **4. ESWT in Pain and Myofascial Treatment**

→ **Annual General Meeting**

Bus transfer to

Networking Dinner at the Kunsthistorische Museum (Art Historical Museum)

FRIDAY, NOVEMBER 05, 2021

As of 07.30 **Congress Registration** and Wake-up Coffee

09.00 → **5. Radial Pressure Waves in Physiotherapy and Professional Sports**

Coffee Break

→ **6. ESWT in Urology and Sexual Medicine**

→ **7. ESWT in Disturbed Wound Healing**

→ **8. ESWT in Neurological Pathologies**

Lunch Break/Industrial Meeting

Coffee Break

→ **9. Recent Developments of ESWT in Orthopedics and Traumatology**

AWARDS AND CLOSING CEREMONY

Get-together at the "Salm-Bräu" Brewery



Photos: spotmatikphoto, Ngampol, Przemyslaw Koch (all: stock.adobe.com), Rainer Gnyc



Everything from ONE source

AUVA (Allgemeine Unfallversicherungsanstalt - the Austrian Workers' Compensation Board) is the social insurance for occupational risks for more than 3.3 million employees and 1.4 million pupils and students. Its legal duties are: prevention of occupational accidents and diseases, occupational medical care, first aid for occupational accidents, post traumatic treatment, rehabilitation, financial compensation and research.

Detailed Scientific Program | Wednesday, November 03, 2021

As of 15.00 **Registration**

19.00-22.00 **Welcome Cocktail** at the Hotel Savoyen | Foyer

Detailed Scientific Program | Thursday, November 04, 2021

23rd WORLD CONGRESS OF THE ISMST

 **VENUE** | Hotel Savoyen | room: Olympia Mancini 1 & 2 (Ground Floor)

As of 07.30 **Congress Registration** and Wake-up Coffee

08.30-09.15 **OPENING CEREMONY**

→ **WELCOME SPEECHES:**

W. Schaden

President of the ISMST

R. Frank

Medical Director AUVA

H. Kuderna

Honorary President of the ISMST

Minute of Memory for Silvia Ramon (†)

“Direct Cardiac Shockwave Therapy – First Results From The CAST-HF Trial”

J. Holfeld, Austria

1. ESWT in Sports Medicine

Moderator: C. Leal, Colombia

Chairs: L. Gerdesmeyer, Germany/K. Knobloch, Germany

09.15-09.25 **KEYNOTE: Combining FSW & RPW in Patella Tendinopathy in Professional German Bundesliga Soccer Players**
K. Knobloch, Germany

09.25-09.35 **KEYNOTE: Focused ESWT in ACL Injury in Alpine Skiing**
J. Kim, South Korea

09.35-09.45 **KEYNOTE: Combining ESWT & PRP in Athletes**
C. Leal, Colombia

09.45-09.55 **KEYNOTE: ESWT & Intraosseus PRP in Athletic Osteoarthritis**
S. Sampson, United States of America

09.55-10.02 **The Rationale and Therapeutic Effect of Extra-Corporeal Shockwave Therapy (ESWT) on The Rotator Cuff Lesions with Shoulder Stiffness: a Prospective Randomized Study**
J. - Y. Ko, K. - K. Siu, F. - S. Wang, C. - J. Wang, W. - Y. Chou, C. - C. Huang, S. - J. Kuo, Taiwan

10.02-10.09 **Focused Type Extracorporeal Shockwave Therapy For Ischial Apophysitis in Young Gymnasts**
T. Omodani, K. Takahashi, Japan, United States of America

10.09-10.16 **Extracorporeal Shockwave Therapy For First Rib Stress Fracture**
T. Sugiyama, H. Murakami, K. Noguchi, K. Kawano, N. Shiba, Japan

10.30-11.00 **Coffee Break**

2. Basic Research

Moderator: R. Mittermayr, Austria

Chairs: C. D'Agostino, Italy/D. Hercher, Austria

- 11.00-11.15 **KEYNOTE: Basic Science Insights From Myocardial Biopsies of The CAST-HF Trial**
J. Holfeld, Austria
- 11.15-11.30 **KEYNOTE: A Systemic Approach to The Standardization of Pre-Clinical ESWT Research**
C. Slezak, United States of America
- 11.30-11.37 **Effects of ESWT on Neuroregeneration After Median Nerve Reconstruction With Autologous Nerve Grafts or Three Different Conduits in The Rat**
J. C. Heinzel, C. Keibl, V. Oberhauser, G. Längle, H. Frick, B. Schädli, M. Sima, N. Swiadek, J. Ferguson, A. Teuschl, T. Hausner, J. Kolbensschlag, D. Hercher, Austria, Germany
- 11.37-11.44 **Histomorphometric Analysis of Tidemark Roughness And Articular Calcified Cartilage Thickness After Extracorporeal Shockwave Therapy on Various Locations of Knee Osteoarthritis**
J. - H. Cheng, C. - J. Wang, W. - Y. Chou, J. - M. Peng, S.- L. Hsu, C. - Y. Huang, J. - Y. Ko, K. - K. Siu, Taiwan
- 11.44-11.51 **Advantages of Preconditioning of ASCS by Shockwave Therapy**
K. Freitag, M. C. Freitag, H. Pipis, A. Romero, M. Rico, E. M. Mayoral, Spain
- 11.51-11.58 **Hippo/YAP/TAZ Mediates Angiogenic Response And Exosome Release Upon SWT**
F. Nägele, M. Graber, L. Pölzl, S. Lechner, V. Schweiger, R. Weiss, V. Weber, J. Holfeld, C. Gollmann-Tepeköylü, Austria
- 11.58-12.05 **miR-19a-3p Containing Exosomes Improve Function of Ischemic Myocardium Upon Shockwave Therapy**
J. Hirsch, L. Pölzl, M. Graber, F. Nägele, D. Lobenwein, M. Hess, M. J. Blumer, E. Kirchmair, J. Zipperle, C. Hromada, S. Mühleder, H. Hackl, M. Hermann, H. Al Khamisi, R. Mittermayr, P. Paulus, H. Fritsch, N. Bonaros, R. Kirchmair, J. P. Sluijter, S. Davidson, M. Grimm, J. Holfeld, C. Gollmann-Tepeköylü, Austria, The Netherlands, United Kingdom
- 12.05-12.12 **Shockwaves Induce an Evolutionary Conserved Mechanism of Spinal Cord Regeneration**
C. Gollmann-Tepeköylü, M. Graber, F. Nägele, T. B. Roehrs, J. Hirsch, L. Pölzl, B. Moriggl, A. Mayr, F. Troger, E. Kirchmair, J. F. Wagner, M. Nowosielski, C. Kremser, H. Hackl, R. Huber, D. Hercher, L. Mayer, J. Völkl, I. Tancevski, D. Meyer, M. Grimm, M. Knoflach, J. Holfeld, Austria
- 12.12-12.19 **Therapeutic Transdifferentiation of Fibroblasts to Functional Endothelial Cells Upon Shockwave Therapy**
J. Hirsch, M. Graber, C. Gollmann-Tepeköylü, V. Schweiger, L. Pölzl, F. Nägele, D. Lener, H. Hackl, S. Sopper, E. Kirchmair, S. Lechner, D. Lobenwein, J. Völkl, I. Tancevski, M. Grimm, J. P. Cooke, J. Holfeld, Austria, United States of America
- 12.30-13.30 **Lunch Break**

3. 25+1 Years DIGEST

Moderator: W. Schaden, Austria

Chairs: K. Knobloch, Germany/ M. Ringeisen, Germany

- 13.30-13.45 **DIGEST History Since 1995**
K. Knobloch, Germany
- 13.45-13.55 **DIGEST Guidelines**
V. Auersperg, Austria
- 13.55-14.05 **DIGEST ESWT Certification Course**
M. Ringeisen, Germany
- 14.05-14.15 **ESWT in German Orthopedic Practice**
S. Thiele, Germany
- 14.15-14.25 **What DIGEST Means to Me**
C. Leal, Colombia
- 14.30-15.00 **Coffee Break**

4. ESWT in Pain and Myofascial Treatment

Moderator: S. Thiele, Germany

Chairs: K. Freitag, Spain/H. Müller-Ehrenberg, Germany

- 15.00-15.15 **KEYNOTE: Myofascial Pain Management. What Can we Expect From The Future**
H. Müller-Ehrenberg, Germany
- 15.15-15.30 **KEYNOTE: ESWT in Supportive Care And Rehabilitation of Cancer Patients**
R. Crevenna, Austria
- 15.30-15.37 **Myofascial Trigger Points Treatment With Extracorporeal Shockwaves:
A Novel Approach For Plantar Fasciitis**
F. Giordani, L. Tognolo A. Bernini, P. Ruggieri, C. Biz, A. C. Frigo, C. Stecco, S. Masiero, Italy
- 15.37-15.44 **Adhesive Capsulitis: Combined Treatment With Shockwaves And Ballistic
Waves Performed During The Physiotherapy Session**
C. Di Luise, S. Russo, M. Albano, G. Di Giorgio, Italy
- 15.44-15.51 **Radial Pressure Waves Efficacy on Myofascial Pain in Patient With Serious
Post-COVID Syndrome – Case Report**
J. Nedělka, T. Nedělka, Czech Republic
- 15.51-15.58 **Chronic Shoulder Pain Management And Extracorporeal Shockwave Treatment
Through an Interdisciplinary Rehabilitation Perspective – Case Report**
E. Kouloulas, Greece

- 16.00-16.45 **POSTER SESSION I**
Jury: C. Leal, Colombia/K. Knobloch, Germany/R. Mittermayr, Austria
- 16.00-16.03 **P1: Defining a Therapeutic Range For Regeneration of Ischemic Myocardium Via Shockwaves**
S. Lechner, J. Hirsch, L. Pözl, F. Nägele, M. Graber, D. Lobenwein, E. Kirchmair, R. Huber, C. Dorfmueller, G. Schäfer, M. Hermann, H. Fritsch, I. Tancevski, M. Grimm, C. Gollmann-Tepeköylü, J. Holfeld, Austria
- 16.03-16.06 **P2: Can Shockwave be Used For The Treatment of Meniscal Tears?**
P. E. Hobrough, United Kingdom
- 16.06-16.09 **P3: Tennis Elbow, Study Protocol For a Randomized Clinical Trial: Needling With And Without Platelet-Rich Plasma After Failure of up-to-date Rehabilitation**
A. Schwitzguebel, M. Bogoev, V. Nikolov, F. Ichane, A. Laedermann, Switzerland
- 16.09-16.12 **P4: Clinical Outcomes of Radial Versus Focused Extracorporeal Shockwaves in Plantar Fasciitis**
Y. Liu, A. Guo, S. Wang, L. Wang, L. Zhang, China
- 16.12-16.15 **P5: Ultrasonographic Change After Extracorporeal Shockwave Therapy For Knee Osteoarthritis – Pilot Study**
H. – E. Yang, J. – H. Lee, J. – H. Jeon, South Korea
- 16.15-16.18 **P6: Case Report – Treatment of a Patient With Knee Osteoarthritis**
B. Kalchovska, M. Gocevska, M. Manoleva, V. Koevska, B. Mitrevska, C. Gerakaroska-Savevska, E. Nikolik-Dimitrova, Republic of North Macedonia
- 16.18-16.21 **P7: Pilot study: Peri/Spine actors for low back pain & RPW for knee pain.**
P. E. Hobrough, United Kingdom
- 16.21-16.24 **P8: Radial Shockwave Therapy For Elite Runners**
P. E. Hobrough, United Kingdom
- 16.24-16.27 **P9: Low-Energy Extracorporeal Shockwave Therapy For Flexor Carpi Ulnaris Calcific Tendinopathy: A Case Report**
M. Pérez-Cuesta Llaneras, A. Fernández-Bravo Rueda, A. Fernández López, Spain
- 17.00-18.00 **ANNUAL GENERAL MEETING**

18.30 **Meeting point in the lobby of the Hotel Savoyen**

As of 19.00 **Bus transfer to Networking Dinner at the Art Historical Museum (KHM)**

As of 08.00 **Congress Registration and Wake-up Coffee**

5. Radial Pressure Waves in Physiotherapy and Professional Sports

Moderator: T. Nedělka, Czech Republic

Chairs: K. Freitag, Spain/M. Ringeisen, Germany

09.00-09.15 **KEYNOTE: Radial Pressure Wave Therapy And Training in Professional Dance Sports**
A. Mohr, Germany

09.15-09.30 **KEYNOTE: Radial Pressure Waves (RPW) Indications in Physiotherapy**
T. Nedělka, Czech Republic

09.30-09.45 **KEYNOTE: Radial Pressure Waves Combined with Dynamic Neuromuscular Stabilisation Exercise Program – A New Perspective of Treatment in Sports Physiotherapy**
J. Katolický, Czech Republic

10.00-10.30 **Coffee Break**

6. ESWT in Urology and Sexual Medicine

Moderator: K. Knobloch, Germany

Chairs: I. Goldstein, United States of America/J. Rassweiler, Germany

10.30-10.55 **KEYNOTE: Novel Use of Low Intensity Shockwave Therapy For The Most Common Sexual Dysfunctions in Men**
I. Goldstein, United States of America

10.55-11.15 **KEYNOTE: High or Low Intensity ESWT For Peyronie´s Disease – What Did We Learn?**
J. Rassweiler, Germany

11.15-11.22 ~~**Efficacy Low Intensity Shockwave Therapy Plus Tadalafil 5 mg Once Daily in Men With Erectile Dysfunction (ED): Comparison Study**~~
~~N. Markina, I. Mostovoy, D. Sterkhov, E. Voychenko, Russia~~

11.22-11.29 **LiESWT in The Treatment of Vasculogenic ED, CPPS and IPP**
I. Motil, T. Sramkova, Czech Republic

11.29-11.36 **Low Energy Shockwave Therapy For Interstitial Cystitis: Preclinical Efficacy in HCL Induced Cystitis Rat Model And Proof of Concept – A Randomized Placebo Controlled Clinical Trial**
Y. – C. Chuang, Y. – C. Shen, H. – J. Wang, W. – C. Lee, P. Tyagi, M. Chancellor, Taiwan, United States of America

11.36-11.43 **Are Radial Pressure Waves Effective in Treating Erectile Dysfunction? A Systematic Review of Preclinical And Clinical Studies**
C. Sandoval-Salinas, H. A. Corredor, L. Fonseca, L. Manrique, G. Solis, J. P. Saffon, Colombia, Mexico

11.43-11.50 **Efficacy And Safety of Radial Pressure Waves For The Treatment of Erectile Dysfunction**
C. Sandoval-Salinas, H. A. Corredor, J. M. Martinez, J. P. Saffon, A. F. Gallego, O. Uribe, Colombia

11.50-11.57 **Decrease in Opioid Use Post-Vestibulectomy Based on Pre-Operative Low Intensity Vestibular Shockwave Therapy (LiSWT)**
I. Goldstein, United States of America

12.00-13.00 **Industrial Meeting** 🌸 **VENUE |** room: Wien/Turin 1st Floor

7. ESWT in Disturbed Wound Healing

Moderator: W. Schaden, Austria

Chairs: C. Leal, Colombia/K. Knobloch, Germany

- 12.00-12.15 **KEYNOTE: Clinical And Experimental Data of ESWT in Wound Healing**
R. Mittermayr, Austria
- 12.15-12.30 **KEYNOTE: ESWT in Burns & Scars**
K. Knobloch, Germany
- 12.30-12.45 **KEYNOTE: ESWT in Skin Ulcers – DFO, Vascular, Infectious**
C. Leal, Colombia
- 12.45-12.52 **Extra Corporeal Shockwave Therapy as Additional Treatment For Lymphedema After Breast Cancer And Lymphatic Surgery**
E. M. Joos, A. Zeltzer, Belgium
- 13.00-14.00 **Lunch Break**

8. ESWT in Neurological Pathologies

Moderator: J. Holfeld, Austria

Chairs: T. Nedělka, Czech Republic/R. Mittermayr, Austria

- 14.00-14.10 **KEYNOTE: Changes in Autonomic Nervous System Reactivity After Focused Extracorporeal Shockwave Therapy in Chronic Lumbar Facet Joint Pain**
T. Nedělka, Czech Republic
- 14.10-14.20 **KEYNOTE: ESWT in Peripheral Nerves**
D. Hercher, Austria
- 14.20-14.27 **ESWT in Cervical Spine Injuries – Case Report**
C. Leal, Colombia
- 14.27-14.37 **KEYNOTE: ESWT For Acute SCI – Clinical Trial**
W. Schaden, Austria
- 14.37-14.44 **Longitudinal Study of Mild Cognitive Disease With TCE**
K. Freitag, M. C. Freitag, J. Pardo, Spain
- 14.44-14.51 **Shockwave Treatment in Patients With Unilateral Spasticity of The Upper Limb After Ischemic or Hemorrhagic Stroke**
C. Gollmann-Tepeköylü, E. Holfeld, A. Mair, M. Thurner, K. Ogris, E. Genelin, G. Nawratil, M. Werkmann, J. Holfeld, E. Pucks-Faes, Austria
- 14.51-14.58 **Clinical Effect of Extracorporeal Shockwave in The Treatment of Phantom Pain From Complete Spinal Injury Based on Brain Function Recombination Theory**
T. Wu, J. Wu, China
- 15.30-16.00 **Coffee Break | Poster Session**

- 15.30-16.00 **POSTER SESSION II**
Jury: C. Leal, Colombia/K. Knobloch, Germany/R. Mittermayr, Austria
- 15.30-15.33 **P11: Radial Extracorporeal Shockwave Therapy For Muscle Mass And Functionality in Patients Undergoing Maintenance Hemodialysis**
Y. S. Cho, S. Y Joo, C. H. Seo, South Korea
- 15.33-15.36 **P12: Effect of Diabetes on Shockwave Therapy For The Treatment of Erectile Dysfunction**
C. Sandoval-Salinas, J. Benitez, H. Corredor, Colombia, Spain
- 15.36-15.39 **P13: Low-Intensity Extracorporeal Shockwave Therapy And Low-Intensity Pulsed Ultrasound in Combination With Platelet Rich Plasma in Erectile Dysfunction Treatment**
Y. Zasieda, Ukraine
- 15.39-15.42 **P14: Efficacy of Extracorporeal Shockwave Therapy (ESWT) in Partial Thickness Tendon Tears.**
A. M. Pozo Román, B. de la Fuente de Hoz, Spain
- 15.42-15.45 **P15: Efficacy of Radial Shockwave Therapy For Promoting Healing of Delayed Forearm Fractures in Children With Ultrasonic Guidance**
Y. Liu, S.Wang, A. Guo, F. Duan, L. Zhang , China
- 15.45-15.48 **P16: Fractional Extra Corporal Shockwave Therapy for Enthesiopathies, Non-Unions And Pain Syndromes. Optimization And Standardization**
I. Kulac, H. Rabl, V. Matzi, R. Schrittwieser, Austria

9. Recent Developments of ESWT in Orthopedics and Traumatology

Moderator: J. Eid, Brazil

Chairs: J. R. Aranzabal, Spain/V. Auersperg, Austria

- 16.00-16.10 **KEYNOTE: ESWT in Osteoarthritis**
J. Eid, Brazil
- 16.10-16.20 **KEYNOTE: Shoulder And Elbow ESWT Indications From a Surgeons' Perspective**
D. Moya, Argentina
- 16.20-16.30 **KEYNOTE: ESWT & EMTT in Supraspinatus Tendinopathy/RCT**
L. Gerdesmeyer, Germany
- 16.30-16.40 **KEYNOTE: ESWT in Hand Surgery**
K. Knobloch, Germany
- 16.40-16.50 **KEYNOTE: Intraosseous PRP & ESWT in Bone Marrow Edema – A Pilot Study**
B. Blatz, United States of America
- 16.50-16.57 **Treatment of Osteoporosis With Defocused Extracorporeal Shockwave Therapy: A Clinical Pilot Study**
M. Koolen, M. Kruyt, C. Öner, W. Schaden, H. Weinans, O. van der Jagt, Austria, The Netherlands
- 16.57-17.04 **Can The Total Energy Represent a Predictive Factor For Non Union Therapy?**
S. Russo, C. Di Luise, M. Albano, G. Di Giorgio, Italy

- 17.04-17.11 **Extracorporeal Shockwave Therapy For Osteonecrosis of Femoral Head: Traps And Challenges**
W. Sun, F. Gao, Z. Li, China
- 17.11-17.18 **Focused Shockwave Treatment For Greater Trochanteric Pain Syndrome a Multicenter, Randomized, Controlled Clinical Trial**
M. Ch. Vulpiani, F. Santoboni, M. Vetrano, L. De Iaco, Italy
- 17.18-17.25 **Comparison of Insertional Versus Non-Insertional Plantar Fasciitis Treated by Focused Extracorporeal Shockwave**
H. Odagiri, Japan
- 17.25-17.32 **Results in The Use of Focused Shockwaves in The Treatment of Postoperative Foot And Ankle Non-Unions And Delayed Unions**
D. Moya, H. Olivieri, B. García Ghigliani, Argentina
- 17.32-17.39 **Shockwaves Are Equally Effective in Treating Tibial Nonunion Compared to Standard of Care Surgery But Cause Significantly Less Direct Health Care Costs**
R. Mittermayr, Austria

Awards – Closing Ceremony

Moderator: W. Schaden, Austria

Chairs: K. Knobloch, Germany/C. Leal, Colombia/R. Mittermayr

18.15 **The winners of the scientific prizes will be awarded**

Social Project of the ISMST-Report

C. Leal, Colombia

“What does ISMST means to me”

J. Eid, Brazil

Handing over the Presidency

Greetings from the President and invitation to the Congress in Prague 2022

19.00 **Meeting point in the lobby of the Hotel Savoyen**

As of 19.30 **Get-Together at the “Salm-Bräu” Brewery**

List of Chairs

- Auersperg Vinzenz**, Pyhrn-Eisenwurzen-Klinikum Kirchdorf Steyr, Austria
- D'Agostino Cristina**, Humanitas Research Hospital, Milano, Italy
- Aranzabal José Ramón**, Traumatology – Shock Wave Unit, San Sebastian, Spain
- Freitag Karin**, DKF, Madrid, Spain
- Gerdesmeyer Ludger**, University Medical Center Schleswig-Holstein, Kiel, Germany
- Goldstein Irwin**, Alvarado Hospital, San Diego CA, United States of America
- Hercher David**, Ludwig Boltzmann Institute for Experimental and Clinical Traumatology, Vienna, Austria
- Knobloch Karsten**, SportPraxis Prof. Knobloch, Hannover, Germany
- Leal Carlos**, Fenway Medical, Bogotá, Colombia
- Mittermayr Rainer**, AUVA Trauma Center Vienna, Austria
- Müller-Ehrenberg Hannes**, Trigger point center – orthopedic private practice, Münster, Germany
- Nedělka Tomáš**, Czech Technical University Prague, Czech Republic
- Rassweiler Jens**, SLK-Kliniken, Heilbronn, Germany
- Ringeisen Martin**, Private Practice, Augsburg, Germany

List of Speakers

- Auersperg Vinzenz**, Pyhrn-Eisenwurzen-Klinikum Kirchdorf Steyr, Austria _____ **(Session 3)**
- Blatz Brice**, O'Connor Hospital Stanford, CA, United States of America _____ **(Session 9)**
- Cheng Jai-Hong**, Chang Gung Memorial Hospital, Kaohsiung, Taiwan _____ **(Session 2)**
- Cho Yoon Soo**, Sacred Heart Hospital, Hallym University College of Medicine, Hangang South Korea _____ **(Poster 11)**
- Chuang Yao Chi**, Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Kaohsiung, Taiwan _____ **(Session 6)**
- Crevenna Richard**, Medical University of Vienna, Austria _____ **(Session 4)**
- Eid José**, Centro de Referencia no tratamento por ondas de choque em ortopedia, Sao Paulo, Brazil _____ **(Session 9)**
- Freitag Karin**, DKF, Madrid, Spain _____ **(Session 2 | 8)**
- Gerdesmeyer Ludger**, University Medical Center Schleswig-Holstein, Kiel, Germany _____ **(Session 9)**
- Giordani Federico**, University of Padua, Italy _____ **(Session 4)**

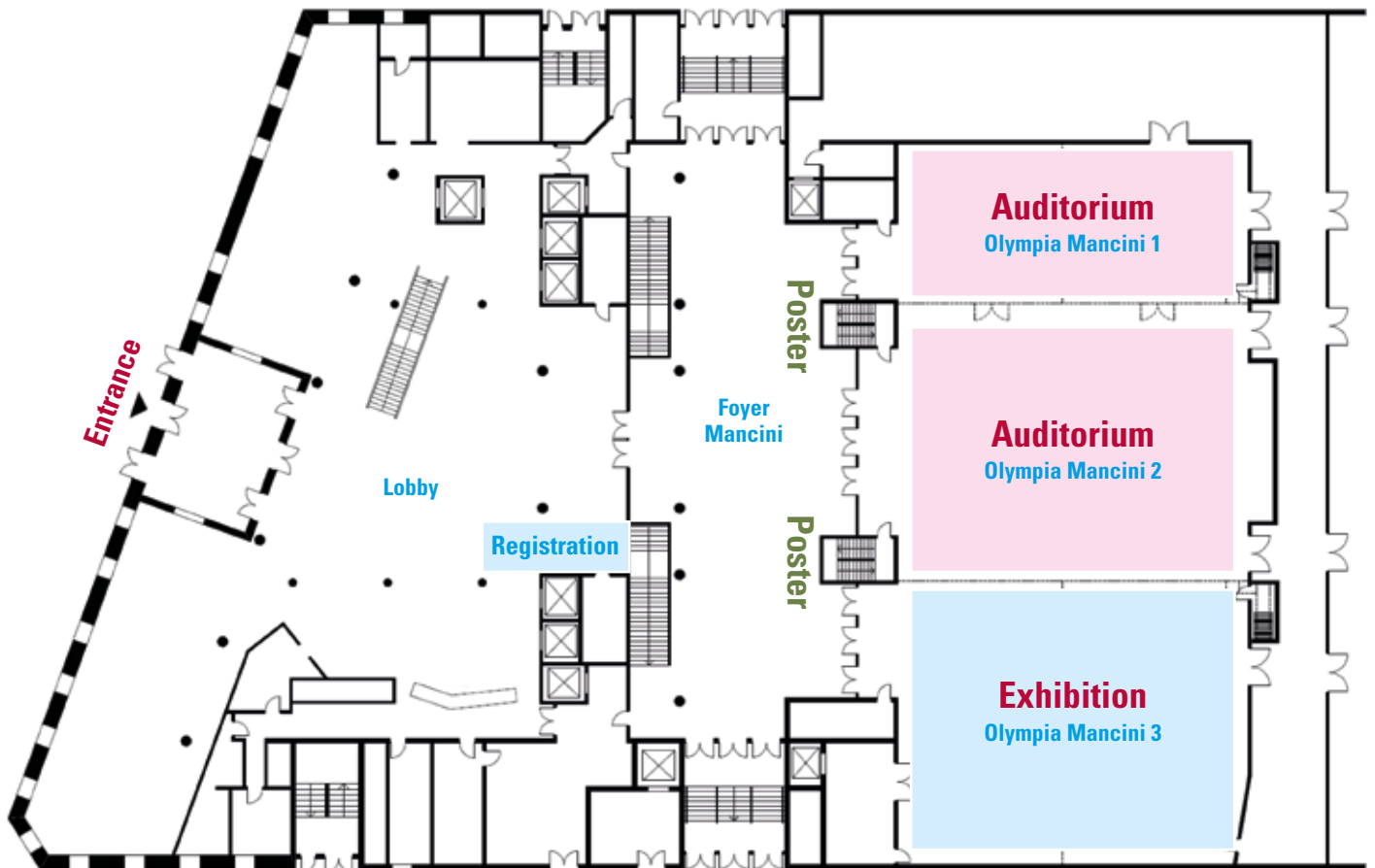
List of Speakers

- Gollmann-Tepeköylü Can**, Medical University of Innsbruck, Austria _____ (Session 2 | 8)
- Goldstein Irwin**, Alvarado Hospital, San Diego CA, United States of America _____ (Session 6)
- Graber Michael**, Medical University of Innsbruck, Austria _____ (Session 2)
- Heinzel Christoph**, Department of Hand-, Plastic, Reconstructive and Burn Surgery, BG Klinik Tübingen, Germany _____ (Session 2)
- Hercher David**, Ludwig Boltzmann Institute for Experimental and Clinical Traumatology, Vienna, Austria _____ (Session 8)
- Hirsch Jakob**, Medical University of Innsbruck, Austria _____ (Session 2)
- Hobrough Paul Edward**, Hobrough-Healthcare, Corbridge, United Kingdom _____ (Poster 2 | 7 | 8)
- Holfeld Johannes**, Medical University of Innsbruck, Austria _____ (Session 2)
- Joos Erika Maria**, UZ Brussels, Belgium _____ (Session 7)
- Kalchovska Biljana**, Institute of Physical Medicine and Rehabilitation-Skopje, Republic of North Macedonia _____ (Poster 6)
- Katolicky Jakub**, Czech Technical University Prague, Czech Republic _____ (Session 5)
- Kim Jaehee**, Korean Association of Medical Shockwave Treatment, Seoul, South Korea _____ (Session 1)
- Knobloch Karsten**, SportPraxis Prof. Knobloch, Hannover, Germany _____ (Session 1 | 3 | 7 | 9)
- Ko Jih-Yang**, Chang Gung Memorial Hospital, Kaohsiung, Taiwan _____ (Session 1)
- Koolen Marianne**, Department of Orthopaedics, University Medical Centre Utrecht, the Netherlands _____ (Session 9)
- Kouloulas Efthimios**, Physiatriki Rehabilitation Center, Athens, Greece _____ (Session 4)
- Kulac Ibrahim**, LKH-Hochsteiermark Standort Leoben, Austria _____ (Poster 16)
- Leal Carlos**, Fenway Medical, Bogotá, Colombia _____ (Session 1 | 3 | 7 | 8)
- Lechner Sophia**, Medical University of Innsbruck, Austria _____ (Poster 1)
- Liu Yajun**, Jishuitan Hospital, Beijing, China _____ (Poster 4 | 15)
- Di Luise Carla**, Università Federico II Naples, Italy _____ (Session 4)
- Markina Nataliya**, Private Clinic Viterra, Moscow, Russia _____ (Session 6)
- Mittermayr Rainer**, AUVA Trauma Center Vienna, Austria _____ (Session 7 | 9)
- Mohr Alexander**, Arcus SportKlinik Pforzheim, Germany _____ (Session 5)
- Motil Igor**, EURED clinic, Prague, Czech Republic _____ (Session 6)

List of Speakers

- Moya Daniel**, British Hospital, Buenos Aires, Argentina _____ (Session 9)
- Müller-Ehrenberg Hannes**, Trigger point center – orthopedic private practice, Münster, Germany _____ (Session 4)
- Nägele Felix**, Medical University of Innsbruck, Austria _____ (Session 2)
- Nedělka Jiří**, MUDr. Nedělka s.r.o., Prague, Czech Republic _____ (Session 4)
- Nedělka Tomáš**, Czech Technical University Prague, Czech Republic _____ (Session 5 | 8)
- Odagiri Haruki**, Hotakubo Orthopaedic Hospital, Kumamoto, Japan _____ (Session 9)
- Omodani Toru**, University of Pittsburgh, United States of America _____ (Session 1)
- Pérez-Cuesta Llaneras Maria**, Hospital Universitario Fundación Jiménez Díaz, Madrid, Spain _____ (Poster 9)
- Pözl Leo**, Medical University of Innsbruck, Austria _____ (Session 2)
- Pozo Román Ana María**, SACYL, Complejo Hospitalario, Segovia, Spain _____ (Poster 14)
- Rassweiler Jens**, SLK-Kliniken, Heilbronn, Germany _____ (Session 6)
- Ringeisen Martin**, Private Practice, Augsburg, Germany _____ (Session 3)
- Russo Sergio**, Università Federico II Naples, Italy _____ (Session 9)
- Sampson Steven**, UCLA, CA, United States of America _____ (Session 1)
- Sandoval-Salinas Carolina**, Boston Medical Group, Bogotá, Colombia _____ (Session 6 | Poster 12)
- Schaden Wolfgang**, Austrian Workers' Compensation Board, Vienna, Austria _____ (Session 8)
- Schwitzguebel Adrien**, La Providence Hospital, Neuchâtel, Switzerland _____ (Poster 3)
- Slezak Cyrill**, Utah Valley University, Orem UT, United States of America _____ (Session 2)
- Sugiyama Takuro**, University Orthopedic Department, Kurume, Japan _____ (Session 1)
- Sun Wei**, China-Japan Friendship Hospital, Beijing, China _____ (Session 9)
- Thiele Sergej**, Chimanos – Medical Care Center, Berlin, Germany _____ (Session 3)
- Vulpiani Maria Chiara**, Sapienza University of Rome, Italy _____ (Session 9)
- Wu Tianyu**, Rehabilitation Hospital of PLA, Beijing, China _____ (Session 8)
- Yang Hea-Eun**, VHS Medical Center, Seoul, South Korea _____ (Poster 5)
- Zasieda Yurii**, Mens Health Clinic, Kiev Ukraine _____ (Poster 13)

HOTEL SAVOYEN – GROUND FLOOR



ADDITIONAL INFORMATION

Photographic and Video Documentation

By participating, you agree to the present and future use of the pictures and videos taken during the event by the Austrian Workers' Compensation Board. It is prohibited to take pictures and videos from the scientific presentations.

WEDNESDAY, NOVEMBER 03, 2021

19.00 Welcome Cocktail at the Hotel Savoyen | Foyer

THURSDAY, NOVEMBER 04, 2021

As of 20.00 **Networking Dinner**

The Art Historical Museum (KHM) is located in the center of Vienna at the “Ringstrasse”. Planning of the Ringstrasse began in 1857 and included the project to bring together and show the imperial collections in a grand new building featuring state-of-the-art technical and display facilities. The Emperor also enlarged the plans to create what was known as the “imperial forum”. He envisaged an additional – also symmetrical – pair of buildings aligned with the two museums, each of which featured a semi-circular facade. The building’s internal structure combines two architectural traditions: entrance hall, staircase and cupola hall form a dramatic unit that celebrates the imperial patron and his predecessors. An additional elegant feature is the circular opening in the ceiling of the entrance hall that offers visitors their first glimpse of the cupola hall. Ascending the stairs, visitors pass Antonio Canova’s “Theseus Slaying the Centaur” on their way to the cupola hall, the apex of imperial display. Along this central axis a wealth of neo-baroque decorations create one of the most solemn and splendid interiors of late-nineteenth-century Vienna, probably unrivalled in any other European museum.

Planning of the Ringstrasse began in 1857 and included the project to bring together and show the imperial collections in a grand new building featuring state-of-the-art technical and display facilities.



FRIDAY, NOVEMBER 05, 2021

19.00 **Get-Together at the “Salm-Bräu” Brewery**

Welcome to the wonderful world of home-brewed beer specialties according to old recipes and the love of Viennese home cooking. Welcome to the historic walls with over 450 years of eventful history. Welcome to the Salm Bräu Brewery.



Quick connections in Vienna



<https://www.shockwavetherapy.org>

Emergency numbers

- 112 – General Emergency for Europe
- 122 – Vienna Fire Department
- 133 – Vienna Police
- 144 – Vienna Ambulance

For further information see

- www.cityairporttrain.com
- www.oebb.at
- www.wienerlinien.at

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IX SETOC - IV ONLAT Congress

VI ISMST Basic Research Meeting

VII Certification Course

Last Update for abstracts and communications January 2022

24, 25, 26 march 2022 Madrid



Place: Medical College in Madrid
Calle Santa Isabel, 51 – Madrid

Technical Secretary:

Grafismo Autoedición, C. B. • Tel.: +34 616 97 26 60

E-mail: pedro@grafismoautoedicion.com • www.grafismoautoedicion.com

24th

World Congress of the International Society for Medical Shockwave Treatment



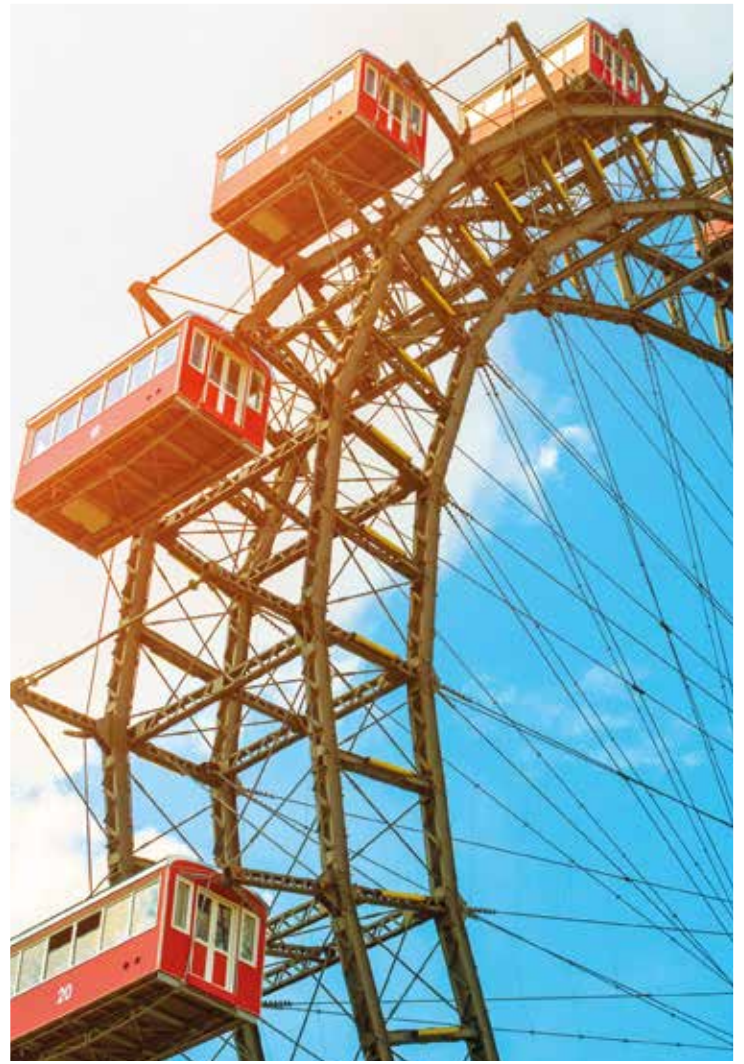
Vienna House Diplomat,
The Czech Republic

Prague

15–17 September

2022





<https://www.shockwavetherapy.org>

