



# OSTEOSYNTHESE INTERNATIONAL 2014

„NAILS AND MORE“

Krems, Austria

September 11-13, 2014



of Küntscher nailing





## **DIE NÖ LANDESKLINIKEN-HOLDING:**

- der größte Klinikbetreiber Österreichs
- an 27 Standorten werden pro Jahr rund 380.000 stationäre Patientinnen und Patienten betreut, 170.000 Operationen durchgeführt sowie 2,9 Mio. Ambulanzbesuche und 2,24 Mio. Belagstage verzeichnet
- 20.000 hervorragende Mitarbeiterinnen und Mitarbeiter als höchstes Gut
- garantiert den Patientinnen und Patienten eine wohnortnahe Gesundheitsversorgung rund um die Uhr und auf höchstem Niveau
- österreichweit Vorreiter für medizinische Qualitätsstandards, -sicherung und Fortbildung
- einer der wesentlichen Motoren der NÖ Wirtschaft



## Table of contents

Message of Welcome, J. Verbruggen.....	4
Message of Welcome, F. Ortner.....	5
The Küntscher Society.....	6
General Information.....	7 - 9
Venue.....	10
Travel Information.....	11
About Krems.....	12
Exhibition Area.....	13
Overview.....	14
Workshops.....	15
Time Table.....	16 - 29
Speakers / First Authors.....	31 - 34
Sponsors.....	35
Notes.....	36 - 39







## Message of Welcome

**J. Verbruggen, MD, PhD**  
**President of the Küntscher Society**



Dear Colleagues,

It is with great pleasure that I announce our next meeting Osteosynthese International 2014, to be held in the beautiful city of Krems. This year Dr. Franz Ortner and his team accepted the challenge to provide us with an interesting scientific program. Topics like new implants, treatment algorithms, biomechanics and complications will lead undoubtedly to interesting lectures and thorough discussions.

Exactly 10 years ago we gathered for the first time in Austria with Prof. Franz-Josef Seibert as our host in the city of Graz. Now we return to Austria and I'm sure the meeting will be equally successful.

Lying at the borders of the Danube, in one of the most beautiful cultural landscapes of Europe known as the Wachau, this city has a history that goes back a thousand years. But there is more. Apart from its historical character, Krems offers another important item which members of the Küntscher Society can appreciate: wine. With the award "Città del Vino", Krems has been admitted as the first city of Austria in the guild of the most popular European wine towns.

Looking at all this, one does not need anything more for a successful conference. Do not hesitate to register.

I hope to meet you all in Krems!

Yours truly





## Message of Welcome

### **Prim. Dr. Franz Ortner** **Congress President**



Dear Colleagues,

On behalf of the Gerhard Küntscher Society we are proud to invite you to Osteosynthesis International 2014 – our Annual Congress – September 11-13 in Krems, Austria.

The Gerhard Küntscher Society is an international organization whose focus is the treatment of fractures with intramedullary nailing. The special topics for the congress are new implants, new algorithms for clinical care, the biomechanics of nailing and complications.

Building on last year's successful congress in Izmir, Turkey our proposal includes ample open sessions with opportunity for discussion as well as focus lectures by experienced faculty. Our industrial partners will provide workshops designed not only for younger colleagues and residents but also for experienced clinicians who want a 'hands-on' experience with new devices.

This congress will be a unique opportunity for all the present members of our society, as well as all the orthopedic surgeons and trainees, who are involved in orthopedic trauma management, to share their knowledge and expertise with intramedullary methods of fixation.

Complementing the scientific program, further exceptional highlights can be enjoyed with colleagues who will gather from all over the world. The venue, Krems is located approximately 70 km (43 mi) west of Vienna, at the beginning of the Wachau, one of the most beautiful parts of the Danube valley and one of the best Austrian wine regions. Krems has a 1,000 year long history with historic buildings, romantic inner courts, the narrow lanes and churches.

Again, we welcome you to the 2014 annual congress of the Küntscher Society and we look forward to seeing you all.

With kind regards





## The Küntscher Society

**Gerhard Küntscher** (1900-1972) was a German surgeon who invented an internal fixation device that is known as the Küntscher nail to stabilize fractures of long bones in 1939. During the war his method allowed German wounded soldiers to return to the battlefield in just a few weeks after treatment. Worldwide knowledge was not established until the prisoners of war returned to their home countries carrying Küntscher's legacy in the form of steel nails in their legs. Küntscher worked in the northern part of Germany in and nearby Kiel, but he travelled worldwide showing the advantages of intramedullary nailing. Due to Küntscher's exhibitions in Vienna, Austrian clinicians and researches had the opportunity to get first-hand knowledge of his work. From that time until now they have contributed to further development of this promising surgical technique which has changed little over the years, only nail design and instrumentation have advanced greatly.

The **Küntscher Society** for intramedullary nailing was founded in 1973 by trauma surgeons who had worked with Gerhard Küntscher, aiming to preserve and develop his ideas and to teach intramedullary nailing worldwide. Today the society offers annual meetings, focus courses, generous prizes, travel fellowships, and affiliation with the Journal INJURY for publications nailing fellowships and online privileges as intramedullary nailing instructions to improve your knowledge and career.

Joining the Küntscher Society will provide access to the world of international nailing experts and offers you a wide range of support throughout your career. With our annual congresses and related events we are teaching intramedullary nailing worldwide. Besides advantages as the close contact to other nailing surgeons for expert exchange, we especially invite young surgeons to participate in these courses.

## The Board

President	Jan Verbruggen
Vice President	Georg Gradl
Secretary	Anica Eschler
Treasurer	Rüdiger Haase
Members	Kemal Aktuglu
	Roland Biber
	Peter Giannoudis
	Mattheos Savvidis
	Patrick Simon
	Michael Wich
	Robert Zura

<http://www.kuentschersociety.org/>







## General Information

On behalf of the Gerhard Kuntscher Society we have the honor to provide all necessary information to you. If you have any questions relating to online registration, room reservation or other matters specified don't hesitate to contact us by phone or e-mail. All formalities have to be completed using the relevant forms published on our homepage

<http://www.kuentschersociety.org/news/annual-meeting.html>

The registration fee includes scientific sessions, workshops, lunch and coffee brakes, opening ceremony, welcome reception, gala dinner, access to the industrial exhibition, free WLAN, delegate's bag and badge, and one copy of the final program.

We have secured a sufficient number of rooms in two high-class, modern hotels within walking distance to the congress venue.

We would appreciate to welcome you in Krems!

Yours sincerely



**Dr. Lukas Negrin, MSc**

**Congress Secretary**

Phone: +43 664 262 53 50

[lukas.negrin@meduniwien.ac.at](mailto:lukas.negrin@meduniwien.ac.at)



**Dr. Christoph Dadak, AHCM**

**Local Organizer**

[c.dadak@utanet.at](mailto:c.dadak@utanet.at)





## General Information

### Congress Language

The official language of the congress is English.

### Credits

The Congress participation will be awarded with 23 DFP-Points.



### Information for Lecturer

Oral presentations using PowerPoint have to be submitted at least two hours prior to the relevant session. We kindly ask the speakers to strictly stay in time.

### Award

The author with the highest ranked oral presentation will be honored with the "Nails and More Presentation Award". It includes prize money of 500 Euro and the publication of the study in the journal INJURY.

The prize will be awarded at the closing ceremony. Please note that the award winner is required to be present at the ceremony in order to receive her/his prize.

### Certificate of Attendance

For participants, a certificate of attendance will be handed out at the registration desk after the congress.

### Insurance and Liability

Delegates are advised to arrange health and accident insurance prior to travelling to the Congress. The congress organizers will not assume any responsibility for accidents, losses or damages, as well as for delays or modifications in the program, caused by unforeseen circumstances. No claims for indemnification from the organizers shall arise for contractors or participants in case of cancellation, for any reason, of the entire congress.

The organizers cannot be held responsible for any personal injury, loss, damage or accident to private property, or for additional expenses incurred as a result of delays or changes in air, rail, road or other services, strikes, sickness, weather and other causes.

### Passport and Visa

Please check passport and visa requirements in due time before your departure.

### Weather

In Krems there should be moderate central European climate during September with temperatures between 30° C (86° F) maximum and 10° C (50° F) minimum.







## General Information

### Registration Fee

The registration fee includes scientific sessions, workshops, lunch and coffee breaks, opening ceremony, welcome reception, gala dinner, access to the industrial exhibition, free WLAN, delegate's bag and badge, and one copy of the final program.

The congress fee depends on the status of the participant and the date of registration.

Members of GKS: 330 Euro

Nonmembers of GKS: 380 Euro

Residents: 230 Euro

Gala Dinner: 60 Euro for an additional person

### Gala Dinner

Location: Kloster UND, 3504 Krems, Undstraße 6

### Payment Information

Payment in advance is only accepted via bank transfer to

Account name: Ost. Int. 2014 Krems, Austria, Prim. Dr.

Franz Ortner

IBAN: AT765300005255606982

BIC: HYPNATWW

Include your full name in the comment field.



Please inform your bank that the transfer must be "Free of charge for GKS". Bank fees will be charged to the participant.

### Accommodation

#### ARTE Hotel Krems

[www.arte-hotel.at](http://www.arte-hotel.at)

Phone: +43 2732 711 23

Fax: +43 2732 715 23

E-mail: [willkommen@arte-hotel.at](mailto:willkommen@arte-hotel.at)



#### Steigenberger Hotel and Spa Krems

[www.steigenberger.com/krems](http://www.steigenberger.com/krems)

Phone: +43 2732 71010

Fax: +43 2732 7101050

E-mail: [krems@steigenberger.at](mailto:krems@steigenberger.at)





## Venue



**IMC Fachhochschule Krems  
Am Campus Krems, Trakt G1  
3500 Krems, Austria**



### **Parking garage – Campus West**

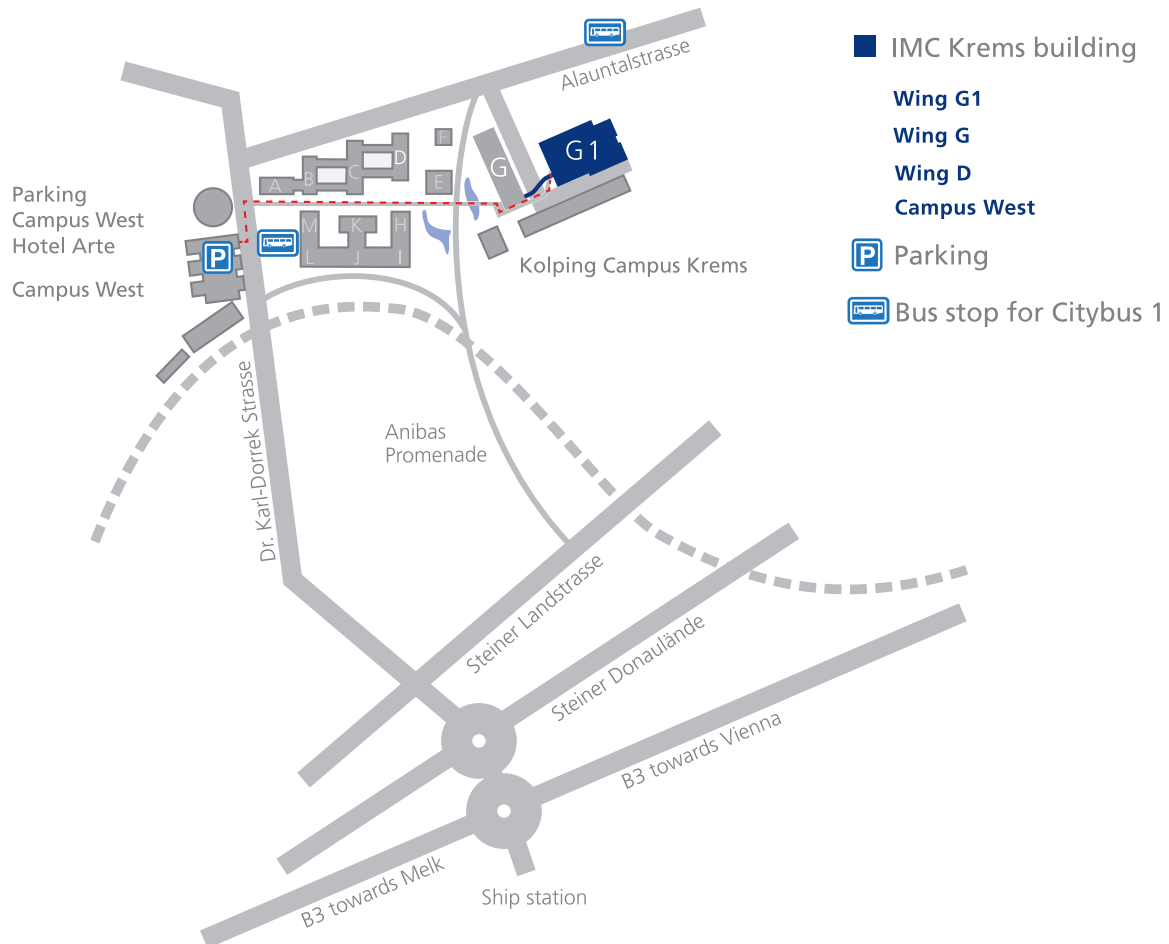
After having left the second roundabout you enter Dr. Karl Dorrek-Straße and follow this street (continue over railroad crossing) until you see Parkhaus P4 “Campus West/Hotel Arte”. For the navigation system: Dr. Karl-Dorrek-Straße 23. As a visitor you pay 1 Euro per hour (max. 11 Euros per day). Standing in front of the Parkhaus “Campus Krems” there is the walking path to the Campus Krems Premises to your left. A guidance system will lead you to the FH-Building, marked with the letter “D”, “G” or “G1”. (max. 3 minutes)

We advise you to only use this parking garage. Campus Krems is a car-free campus.





## Travel Information



**By car**

- From Vienna take highway A22, continue on S5 to KREMS
- From highway A1 „Westautobahn“ until St. Pölten, then continue on S33 to KREMS
- From highway A1 „Westautobahn“ until Melk, then continue on B3 to KREMS (through the Wachau)

**By train**

- From Vienna (Franz-Josefs-Train-Station) to KREMS: traveling time approx. 1 hour
- From St. Pölten (Westbahn) to KREMS: traveling time approx. 30-45 minutes

Train information KREMS: +432732/82536-345  
General train information Vienna: +435/1717

**By plane**

- Vienna International Airport

### Shuttle service Vienna Airport – KREMS

[www.vienna-airporttaxi.at](http://www.vienna-airporttaxi.at)

[www.airportservice.at](http://www.airportservice.at)

<http://austria-taxi.at>





## About Krems



The City of Krems is located at the confluence of the Krems and Danube Rivers at the eastern end of Wachau valley, a UNESCO cultural heritage. First mentioned in 995 as an imperial fortress, it is one of the oldest cities of Austria. It has a remarkable amount of medieval architecture, including the old Stadtborg (fortress) and the remaining fortifications Steiner Gate, Powder Tower, and Gozzoburg. Unlike in many other Austrian towns, the baroque architecture hasn't really taken root in Krems.

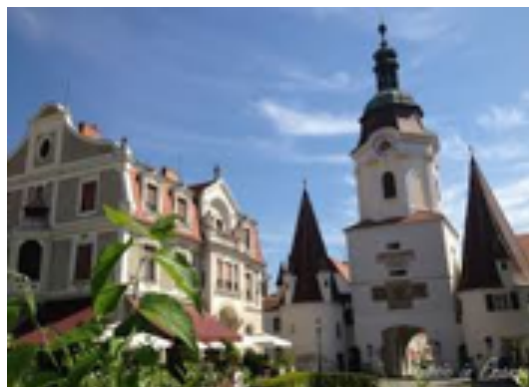
Krems is famed for the cobbled streets, numerous small squares, and narrow alleys of its Altstadt (Old Town), which is virtually unchanged since the 18<sup>th</sup> century.



The lower Old Town is an attractive pedestrian zone filled with cafés, restaurants and souvenir shops, in the upper Old Town the renaissance Rathaus (city hall) and the St. Veit parish church, one of Austria's oldest baroque churches, are located. Nevertheless, Krems is not dominated by the past.

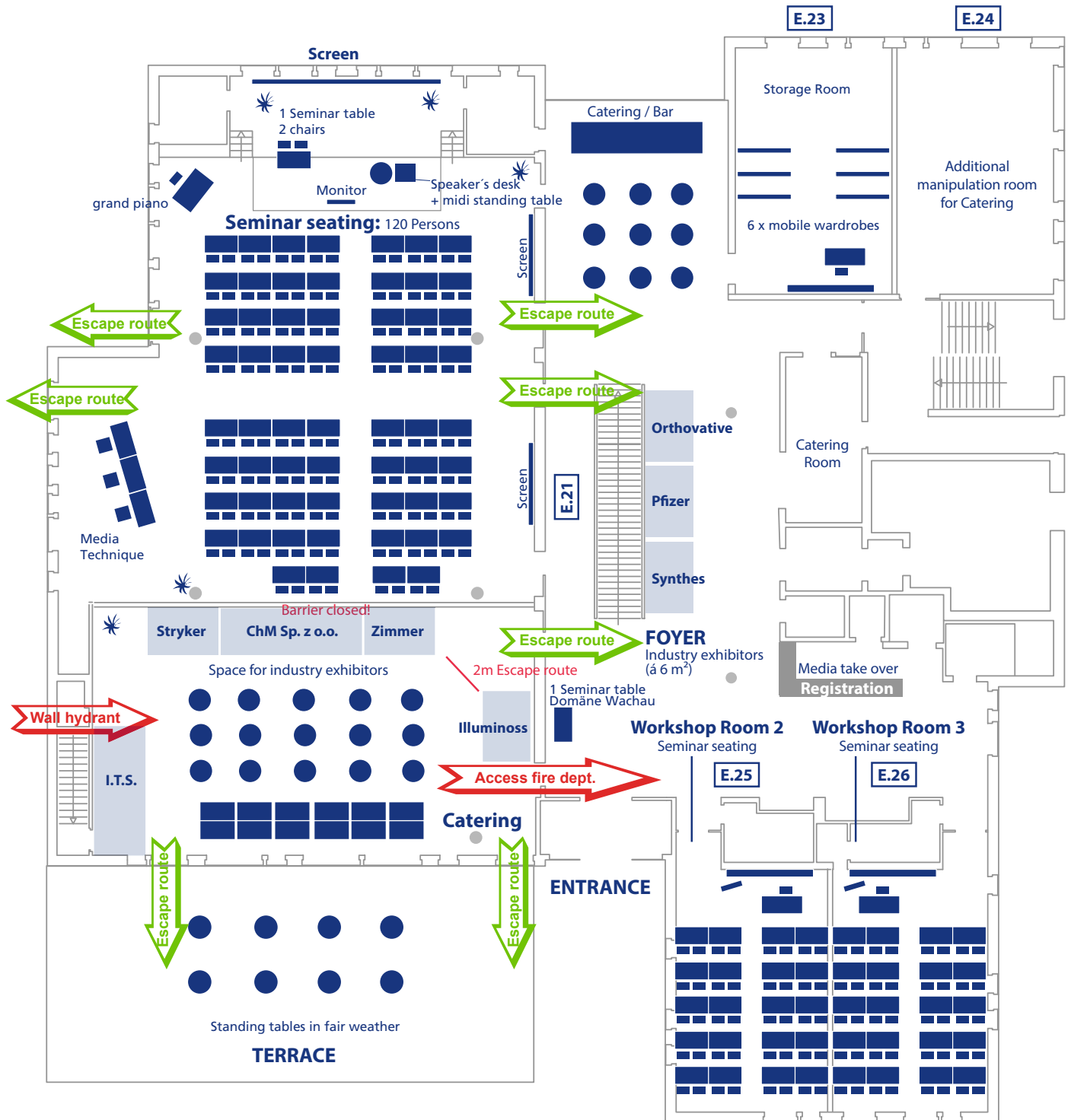
Contemporary art and culture play an important role. Its new Arts Mile includes, besides galleries and eateries, the Karikaturmuseum; the Kunsthalle Krems; the Frohner Museum, and the Lower Austria literature center.

Krems' wealth has always been its viticulture. The cultivation of grapes and winemaking has been closely linked to the settlement of the Krems region since time immemorial. Lovers of good wine enjoy ready access to the cellars of Krems winemakers, the Heurige (wine taverns) and the wine tasting shops. Of particular note are the classic Krems varieties "Grüner Veltliner" and "Riesling".





## Exhibition Area





## Overview

### Wednesday, September 10, 2014

**18:00 / 20:00**    **Board Meeting / President's Dinner**

### Thursday, September 11, 2014

**11:00-13:00**    **Registration**  
 13:00-13:10    Welcome Words (President of the Society, Congress President)  
 13:10-13:30    Historical lecture on the occasion of the 75<sup>th</sup> anniversary of Küntscher's first nail by Prof. Dr. D. Seligson  
 13:30-14:40    Session A: PROXIMAL FEMUR 1  
 15:10-16:45    Session B: TIBIA  
 17:15-19:20    Session C: COMPLICATIONS  
**19:30**    **Official Opening of the Congress** by Karl Wilfing, Minister in the Government of Lower Austria, representing Governor Erwin Pröll  
**Welcome words** by the Medical Managing Director of the NÖ Landeskliniken Holding Dr. Robert Griessner  
**Followed by**    **Welcome Reception given by Governor Erwin Pröll**

### Friday, September 12, 2014

08:30-10:06    Session D: HUMERUS  
 10:30-12:10    Session E: LIMB LENGTHENING AND DEFORMITY CORRECTION  
 12:10-14:00    Lunch Break / Workshops  
 14:00-15:20    Session F: PELVIS AND ACETABULUM  
 15:40-16:56    Session G: PROXIMAL FEMUR 2  
 17:20-18:00    Session H: BIOMECHANICS  
 18:00-18:50    Session I: FOOT AND ANKLE  
**19:00-20:00**    **General Assembly of the Küntscher Society**  
**20:30**    **Gala Dinner**

### Saturday, September 13, 2014

08:30-10:17    Session J: FEMUR SHAFT/DISTAL FEMUR  
 10:45-11:25    Session K: PERIPROSTHETIC FRACTURES  
 11:25-12:21    Session L: CLAVICLE/FOREARM  
 12:40-14:30    Session M: VARIA  
**14:45**    **"Nails and More Presentation Award" Ceremony**  
 Closing Words







## WORKSHOP

PolyAxNail sets a new benchmark in the surgical treatment of proximal humerus fractures. To meet the individual needs the proximal screws can be oriented intraoperatively. Anatomical reduction and a true angle stability will lead to a better biomechanical behavior.

The innovative targeting device guarantees an intuitive and easy handling!

Come and try the future of proximal humeral osteosynthesis with your own hands.



**Friday, September 12, 2014**

**Workshop Room 3**

**12:30 – 14:00**

This research project is financed and supported by...

Supported by:



Federal Ministry  
for Economic Affairs  
and Energy

on the basis of a decision  
by the German Bundestag



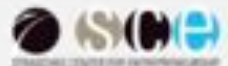
EUROPÄISCHE UNION



Europäischer Sozialfonds  
für Deutschland

**EXIST**

Existenzgründungen  
aus der Wissenschaft



# WORKSHOP I.T.S ANNOUNCEMENT fehlt



## TIME TABLE

### Wednesday, September 10, 2014

**18:00/20:00**      **Board Meeting/President's Dinner**

### Thursday, September 11, 2014

**11:00-13:00**      **Registration**

**13:00-13:05**      **Welcome Words of J. Verbruggen, President of the Küntscher Society**

**13:05-13:10**      **Welcome Words of F. Ortner, Congress President**

**13:10-13:30**      **Historical Lecture on the occasion of the 75<sup>th</sup> anniversary of Küntscher's first nail - "The Background for Küntscher's intramedullary nailing of 1939" by Prof. Dr. D. Seligson**

### **13:30-14:40**      **Session A: PROXIMAL FEMUR 1**

Chairmen: G. Gradl, M. Greitbauer

**13:30-13:50**      **A1      Keynote lecture: Pearls and pitfalls in the treatment of proximal femoral fractures**      **18'+2'**  
R. Varma  
*King's College Hospital, London, United Kingdom*

**13:50-14:10**      **A2      Keynote lecture: Proximal femur nailing – what have we learned?**      **18'+2'**  
G. Gradl  
*Klinikum München Harlachingen, Department for Trauma, Orthopedic and Reconstructive Surgery, Germany*

**14:10-14:20**      **A3      Our results of the osteosynthesis of intracapsular femoral neck fractures with the cannulated screws**      **8'+2'**  
N. Özkayin<sup>1</sup>, K. Aktuğlu<sup>1</sup>, G. Okçu<sup>2</sup>, T. Çolak<sup>1</sup>  
<sup>1</sup> *Ege University Medical School, Department of Orthopaedics and Traumatology, İzmir, Turkey*  
<sup>2</sup> *Celal Bayar University Medical School, Manisa, Turkey*





14:20-14:30	A4	<b>Repair of intertrochanteric hip fracture: Cephalo-medullary nail predominates over Dynamic Hip Screw</b> B. Streufert, R. A. Henderson, J. A. Godin, R. C. Mather III, R. D. Zura <i>Duke University Hospital, Orthopaedic Surgery, Durham, United States</i>	8'+2'
14:30-14:40	A5	<b>Treatment of proximal femoral fractures with the Gliding Nail – development within 17 years</b> H. Gobi, L. Schörghuber, M. Greitbauer <i>Universitätsklinikum St. Pölten – Lilienfeld, Department of Trauma Surgery and Sports Traumatology, Austria</i>	8'+2'
14:40-15:10		<b>Coffee Break</b>	
15:10-16:45		<b>Session B: TIBIA</b> Chairmen: R. Kdolsky, K. Aktuglu	
15:10-15:30	B1	<b>Keynote lecture: Management of ipsilateral femoral and tibial shaft fractures</b> K. Aktuglu <i>Ege University Hospital, Orthopaedic Surgery and Traumatology, Izmir, Turkey</i>	18'+2'
15:30-15:50	B2	<b>Keynote lecture: Tibial shaft fracture – nail or plate or exfix</b> R. Kdolsky <i>Medical University of Vienna, Department of Trauma Surgery, Austria</i>	18'+2'
15:50-16:10	B3	<b>Keynote lecture: Tips and tricks in nailing distal tibial fractures</b> R. Varma <i>King's College Hospital, London, United Kingdom</i>	18'+2'
16:10-16:20	B4	<b>The Lambotte Incision - a posteromedial approach to the distal tibia</b> J. Towarnicki, R. Auer, D. Seligson <i>University of Louisville, Orthopaedic Surgery, United States</i>	8'+2'
16:20-16:35	B5	<b>How to deal with complicated tibial fractures?</b> M. Greitbauer <i>Universitätsklinikum St. Pölten – Lilienfeld, Department of Trauma Surgery and Sports Traumatology, Austria</i>	13'+2'







16:35-16:45	B6	<b>Risk factors associated with acute compartment syndrome of the lower extremity in patients with tibia fractures</b> R. Auer, J. Polio, J. Riehl <i>University of Louisville, Orthopaedic Surgery, United States</i>	8'+2'
16:45-17:15		<b>Coffee Break</b>	
17:15-19:20		<b>Session C: COMPLICATIONS</b> Chairmen: P. Giannoudis, D. Seligson	
17:15-17:35	C1	<b>Keynote lecture: Atrophic long bone non-unions: Current insights into their pathogenesis and treatment</b> P. Giannoudis <i>Leeds General Infirmary, Academic Department of Trauma &amp; Orthopaedics, United Kingdom</i>	18'+2'
17:35-17:45	C2	<b>Are obesity, diabetes and gender specific risk factors for complications after intramedullary nailing of tibial shaft fractures?</b> K. Handojo <sup>1</sup> , W.-J. Metsemakers <sup>1</sup> , P. Reynders <sup>2</sup> , S. Nijs <sup>1</sup> <sup>1</sup> <i>University Hospitals Leuven, Traumatology, Belgium</i> <sup>2</sup> <i>Brugmann Hospital, Brussel, Belgium</i>	8'+2'
17:45-17:55	C3	<b>Cardiac events in orthopaedic trauma patients: risk factors and outcome</b> M. Panteli, M. Giannoudi, P. Giannoudis <i>Leeds General Infirmary, Academic Department of Trauma &amp; Orthopaedics, United Kingdom</i>	8'+2'
17:55-18:05	C4	<b>Complication analysis of the Targon® PH nail - a review of 1135 cases</b> B. Altintas, R. Biber, H. J. Bail <i>Klinikum Nürnberg, Department of Trauma and Orthopaedic Surgery, Germany</i>	8'+2'
18:05-18:15	C5	<b>How to prevent cut-out and cut-through in biaxial proximal femoral nails: Is there anything beyond lag screw positioning and tip-apex-distance?</b> R. Biber, B. Zirngibl, H. J. Bail <i>Klinikum Nürnberg, Department of Trauma and Orthopaedic Surgery, Germany</i>	8'+2'





18:15-18:25	C6	<b>Diaphyseal humeral fractures: failure analysis of a single centre series</b> V. Wijnen, W.-J. Metsemakers, S. Nijs <i>University Hospitals Leuven, Traumatology, Belgium</i>	8'+2'
18:25-18:35	C7	<b>Infected metalwork following trauma: implications and clinical results</b> M. Panteli, M. Howell, P. Giannoudis <i>Leeds General Infirmary, Academic Department of Trauma &amp; Orthopaedics, United Kingdom</i>	8'+2'
18:35-18:45	C8	<b>Is room air arterial oxygen a useful test prior to intramedullary nailing?</b> L. Douglas <sup>1</sup> , B. Schell <sup>1</sup> , L. L. Negrin <sup>2</sup> , D. Seligson <sup>1</sup> <sup>1</sup> <i>University of Louisville, Orthopaedic Surgery, United States</i> <sup>2</sup> <i>Medical University of Vienna, Department of Trauma Surgery, Austria</i>	8'+2'
18:45-18:55	C9	<b>Does damage control surgery influence delayed fracture healing and infection of femoral shaft fractures in polytrauma? Results of a single center experience</b> N. Roels S. Nijs, W. J. Metsemakers <i>University Hospitals Leuven, Department of Trauma Surgery, Belgium</i>	8'+2'
18:55-19:05	C10	<b>Are dislocations following hip hemiarthroplasty a predictor of increased mortality?</b> M. Panteli, A. Lampropoulos, P. Giannoudis <i>Leeds General Infirmary, Academic Department of Trauma &amp; Orthopaedics, United Kingdom</i>	8'+2'
19:05-19:20	C11	<b>A retrospective study to evaluate the efficacy of treating non-unions, un-nailable and un-plateable fractures of the humerus using a TSF</b> S. Pretorius <i>Tygerberg Hospital, University of Stellenbosch, South Africa</i>	8'+2'

**19:30**

**Official Opening** of the congress by **Karl Wilfing**,  
Minister in the Government of Lower Austria,  
representing Governor Erwin Pröll

**Welcome Words** by the Medical Managing Director of  
the NÖ Landeskliniken Holding **Dr. Robert Griessner**

**Followed by**

**Welcome Reception** given by Governor **Erwin Pröll**





## Friday, September 12, 2014

8:30-10:06

### Session D: HUMERUS

Chairmen: M. Schwarz, J. Verbruggen

- |           |    |   |        |
|-----------|----|---|--------|
| 8:30-8:50 | D1 | <b>Keynote lecture: Proximal humerus fractures: nail versus plate</b><br>J. Verbruggen<br><i>Department of Trauma Surgery, Maastricht University Medical Center, The Netherlands</i>  | 18'+2' |
| 8:50-9:10 | D2 | <b>Keynote lecture: Recent innovations in proximal humeral plating</b><br>G. Gradl<br><i>Klinikum München Harlachingen, Department for Trauma, Orthopedic and Reconstructive Surgery, Germany</i>   | 18'+2' |
| 9:10-9:20 | D3 | <b>Locking plate fixation of proximal humerus fractures in patients of advanced age. Is it reliable enough?</b><br>A. Baltov <sup>1</sup> , D. Enchev <sup>1</sup> , M. Rashkov <sup>1</sup> , I. Gerov <sup>2</sup><br><i><sup>1</sup> University Emergency Hospital "Pirogov", Orthopaedics&amp;Trauma Surgery, Sofia, Bulgaria</i><br><i><sup>2</sup> Military Medical Academy, Sofia, Bulgaria</i>  | 8'+2'  |
| 9:20-9:30 | D4 | <b>Decision-making in severely displaced fractures of the proximal humerus - fracture or surgeon based?</b><br>G. Gradl <sup>1</sup> , M. Knobe <sup>1</sup> , D. Ring <sup>2</sup> , H.-C. Pape <sup>1</sup><br><i><sup>1</sup> University of Aachen Medical Center, Department of Orthopaedic Trauma, Germany</i><br><i><sup>2</sup> Massachusetts General Hospital, Boston, United States</i>  | 8'+2'  |
| 9:30-9:40 | D5 | <b>A new polyaxial locking nail for proximal humerus fractures - morphological assessment of screw placement in a virtual system</b><br>T. Harnoss <sup>1</sup> , U. Schreiber <sup>2</sup> , G. H. Sandmann <sup>3</sup> , A. Lenich <sup>3</sup><br><i><sup>1</sup> Klinikum Kempten, Clinic of Orthopedics and Traumatology, Germany</i><br><i><sup>2</sup> Munich University of Applied Sciences, Germany</i><br><i><sup>3</sup> Klinikum rechts der Isar, Department of Traumatology, Technical University Munich, Germany</i> | 8'+2'  |
| 9:40-9:50 | D6 | <b>Is it safe to assist proximal humeral nailing to residents? An analysis of 1134 cases</b><br>B. Altintas, R. Biber, H. J. Bail<br><i>Klinikum Nürnberg, Department of Trauma and Orthopaedic Surgery, Germany</i>  | 8'+2'  |







9:50-10:00      D7      **Fixator-assisted nailing in fractures and varus malunions of the proximal humerus**      8'+2'  
A. Chelnokov, E. Lavrukova  
*Ural Research Institute of Traumatology and Orthopaedics, Ekatarinburg, Russia*

10:00-10:06      D8      **Case report: Fracture care in a patient with a distal humeral fracture and rheumatoid arthritis**      5'+1'  
M. Schwarz  
*Landeskrankenhaus Mistelbach-Gänserndorf, Department of General and Orthopedic Trauma, Austria*

**10:06-10:30      Coffee break**

**10:30-12:10      Session E: LIMB LENGTHENING AND DEFORMITY CORRECTION**  
Chairmen: P. H. Thaller, G. E. Wozasek

10:30-10:50      E1      **Keynote lecture: Limb lengthening and deformity correction with fully implantable lengthening nails**      18'+2'  
P. H. Thaller  
*Ludwig-Maximilians-University, Campus Innenstadt, Munich, Germany*

10:50-11:10      E2      **Keynote lecture: The beauty of intramedullary bone lengthening (it started in Louisville)**      18'+2'  
G. E. Wozasek  
*Medical University of Vienna, Department of Trauma Surgery, Austria*

11:10-11:20      E3      **Accuracy and safety in bilateral lengthening of lower extremity using a magnet-activated intramedullary lengthening device: a preliminary report**      8'+2'  
D. Lee<sup>1</sup>, K. J. Reu<sup>2</sup>  
<sup>1</sup> *Severance Hospital, Orthopedic Surgery, Seoul, South Korea*  
<sup>2</sup> *CHA University, Seoul, South Korea*

11:20-11:30      E4      **The place of an expandable intramedullary nail for long bone fractures**      8'+2'  
S. Kibbe, J. McKean, D. Seligson  
*University of Louisville, Orthopaedic, United States*





11:30-11:40	E5	<b>Magnetically driven intramedullary lengthening nail (PRECICE®) for lengthening and deformity correction at the lower extremity - preliminary results</b> F. Wolf, P.H. Thaller <i>Klinik für Allgemeine, Unfall-, Hand- und Plastische Chirurgie der Universität München, LMU, 3D-Surgery, Germany</i>	8'+2'
11:40-11:50	E6	<b>Quantitative analysis of valgus deformity during lengthening over nail of tibia: a case control study</b> D. Lee, K. J. Reu <i>Severance Hospital, Orthopedic Surgery, Seoul, South Korea</i>	8'+2'
11:50-12:00	E7	<b>Intramedullary nails for deformity correction of the proximal tibia</b> P. H. Thaller <sup>1</sup> , K.-I. Kim <sup>2</sup> , A. Ramteke <sup>2</sup> , S. H. Lee <sup>2</sup> , S.-H. Lee <sup>2</sup> <sup>1</sup> Ludwig-Maximilians-University, Campus Innenstadt, Munich, Germany <sup>2</sup> Department of Orthopaedic Surgery, Center for Joint Diseases and Rheumatism, Kyung Hee University Hospital at Gangdong, Seoul, Korea	8'+2'
12:00-12:10	E8	<b>Reamed intramedullary nailing has adverse effect in bone regeneration during distraction phase in distraction osteogenesis of tibia - a cohort study</b> D. Lee <sup>1</sup> , K. J. Reu <sup>2</sup> <sup>1</sup> Severance Hospital, Orthopedic Surgery, Seoul, South Korea <sup>2</sup> CHA University, Seoul, South Korea	8'+2'
12:10-14:00	<b>Lunch Break / Workshops</b>		
14:00-15:20	<b>Session F: PELVIS AND ACETABULUM</b> Chairmen: P. Reynders, D. Seligson		
14:00-14:20	F1	<b>Keynote lecture: Approach of Jalaguier for pelvic rim osteosynthesis</b> P. Reynders <i>Brugmann Hospital, Brussel, Belgium</i>	18'+2'
14:20-14:40	F2	<b>Keynote lecture: Decision making in the treatment of acetabular fractures</b> R. Biber <i>Klinikum Nürnberg, Department of Trauma and Orthopaedic Surgery, Germany</i>	18'+2'





14:40-14:50	F3	<b>Treatment of acetabular T-type fractures with a single posterior approach</b> L. L. Negrin <sup>1</sup> , D. Seligson <sup>2</sup> <i><sup>1</sup> Medical University of Vienna, Department of Trauma Surgery, Austria</i> <i><sup>2</sup> University of Louisville, Orthopaedic Surgery, United States</i>	8'+2'
14:50-15:00	F4	<b>Operative treatment of acetabular fractures in the elderly: our institutional experience</b> M. Panteli, P. Giannoudis <i>Leeds General Infirmary, Academic Department of Trauma &amp; Orthopaedics, United Kingdom</i>	8'+2'
15:00-15:10	F5	<b>Differences in outcome of transverse acetabular fractures depending on the patients' position using a posterior approach</b> L. L. Negrin <sup>1</sup> , D. Seligson <sup>2</sup> <i><sup>1</sup> Medical University of Vienna, Department of Trauma Surgery, Austria</i> <i><sup>2</sup> University of Louisville, Orthopaedic Surgery, United States</i>	8'+2'
15:10-15:20	F6	<b>Radiation exposure to the patients during fluoroscopically guided acetabular reconstruction</b> M. Panteli, T. Tosounidis, P. Giannoudis <i>Leeds General Infirmary, Academic Department of Trauma &amp; Orthopaedics, United Kingdom</i>	8'+2'
15:20-15:40		<b>Coffee Break</b>	
15:40-16:56		<b>Session G: Proximal Femur 2</b> Chairmen: G. Thewanger, R. D. Zura	
15:40-16:00	G1	<b>Keynote lecture: The Gamma nail – a critical overview of 20 years of experience</b> G. Thewanger <i>Unfallkrankenhaus Linz, Austria</i>	18'+2'
16:00-16:10	G2	<b>Decreasing incidence of hip fracture in the US Medicare population, 2005-2011</b> R. A. Henderson, J. A. Godin, B. D. Streufert, R. D. Zura <i>Duke University Hospital, Orthopaedic Surgery, Durham, United States</i>	8'+2'
16:10-16:20	G3	<b>Intramedullary fixation with a third generation nail versus the sliding hip screw for trochanteric hip fractures; a randomized trial of 850 patients</b> M. Parker, M. Dunne <i>Peterborough City Hospital, United Kingdom</i>	8'+2'





16:20-16:30 G4 **Results of elder patients with intertrochanteric femur fracture who were treated with the proximal femur nail** 8'+2'  
 N. Özkayın, K. Aktuğlu<sup>1</sup>, T. Colak<sup>1</sup>, G. Okcu<sup>2</sup>  
<sup>1</sup> Ege University Medical School, Department of Orthopaedics and Traumatology, İzmir, Turkey  
<sup>2</sup> Celal Bayar University Medical School, Manisa, Turkey

16:30-16:40 G5 **Cutting out in trochanteric fractures can be avoided by I beam profile of the femoral neck component (GN / Gliding Nail)** 8'+2'  
 W. Friedl  
 Klinikum Aschaffenburg, Orthopaedics, Trauma and Hand Surgery, Germany

16:40-16:50 G6 **Subtrochanteric femoral fractures treated with intramedullary fixation: our institutional experience** 8'+2'  
 M. Panteli, P. Giannoudis  
 Leeds General Infirmary, Academic Department of Trauma & Orthopaedics, United Kingdom

16:50-16:56 G7 **Case report: Fracture care in a patient with a proximal femoral fracture and rheumatoid arthritis** 5'+1'  
 M. Schwarz  
 Landeskrankenhaus Mistelbach-Gänserndorf, Department of General and Orthopedic Trauma, Austria

**16:56-17:20 Coffee Break**

## **17:20-18.00 Session H: BIOMECHANICS**

Chairmen: A. Eschler, R. Varma

17:20-17:40 H1 **Keynote lecture: Biomechanics of fracture healing and nailing** 18'+2'  
 R. Varma  
 King's College Hospital, London, United Kingdom

17:40-17:50 H2 **The effect of screw length and an additional ascending screw on the biomechanical stability of proximal humerus nails – an in-vitro investigation** 8'+2'  
 G. H. Sandmann<sup>1</sup>, P. Föhr<sup>2</sup>, R. Burgkart<sup>2</sup>, T. Harnoss<sup>3</sup>, U. Schreiber<sup>4</sup>, A. Lenich<sup>5</sup>  
<sup>1</sup> Klinikum rechts der Isar, Department of Traumatology, Technical University Munich, Germany  
<sup>2</sup> Biomechanics Laboratory, Department of Orthopaedics, Technical University Munich, Germany  
<sup>3</sup> Department of Traumatology, Klinikum Kempten, Germany  
<sup>4</sup> University of Applied Science Munich; Department PolyAxNail, Germany  
<sup>5</sup> Department of Orthopaedic Sports Surgery, Technical University Munich, Germany







- 17:50-18:00      H3      **Is it possible to predict the cut-through phenomena by only taking surface area of the intramedullary nail with its screws into account? A biomechanical evaluation**      8'+2'
- M. Wanzl<sup>1</sup>, P. Föhr<sup>2</sup>, R. Burgkart<sup>2</sup>, G. H. Sandmann<sup>1</sup>, U. Schreiber<sup>3</sup>, T. Harnoss<sup>4</sup>, A. Lenich<sup>5</sup>
- <sup>1</sup> *Klinikum rechts der Isar, Department of Traumatology, Technical University Munich, Germany*  
<sup>2</sup> *Biomechanics Laboratory, Department for Orthopaedics and Sports Medicine, Technical University Munich, Germany*  
<sup>3</sup> *University of Applied Science Munich; Department PolyAxNail, Germany*  
<sup>4</sup> *Department of Traumatology, Klinikum Kempten, Germany*  
<sup>5</sup> *Department of Orthopaedic Sports Surgery, Technical University Munich, Germany*

**18:00-18:50      Session I: FOOT AND ANKLE**  
Chairmen: A. Eschler, R. Varma

- 18:00-18:10      I1      **Nailing the ankle, new uses for an old technique**      8'+2'
- D. Seligson, L. Douglas, R. Auer  
*University of Louisville, Orthopaedic Surgery, United States*
- 18:10-18:20      I2      **New technique for intramedullary ankle osteosynthesis**      8'+2'
- W. Friedl  
*Klinikum Aschaffenburg, Orthopaedics, Trauma and Hand Surgery, Germany*
- 18:20-18:30      I3      **The beauty of intramedullary ankle fusion**      8'+2'
- L. Zak, G. E. Wozasek  
*Medical University of Vienna, Department of Trauma Surgery, Austria*
- 18:30-18:40      I4      **Additional Eptotermin  $\alpha$ ; application for arthrodesis in midfoot DNOAP stage Eichenholtz III – a promising concept?**      8'+2'
- A. Eschler<sup>1</sup>, T. Mittlmeier<sup>1</sup>, G. Gradl<sup>2</sup>  
<sup>1</sup> *University of Rostock, Department for Trauma, Hand and Reconstructive Surgery, Germany*  
<sup>2</sup> *Klinikum München Harlachingen, Department for Trauma, Orthopedic and Reconstructive Surgery, Germany*
- 18:40-18:50      I5      **Fifth metatarsal fractures non-union: our institutional experience**      8'+2'
- M. Panteli, P. Giannoudis  
*Leeds General Infirmary, Academic Department of Trauma & Orthopaedics, United Kingdom*

**19:00-20:00      General Assembly of the Küntscher Society**

**20:30      Gala Dinner**  
Location: Kloster UND, 3504 Krems, Undstraße 6





## Saturday, September 13, 2014

8:30-10:17

### Session J: FEMUR SHAFT/DISTAL FEMUR

Chairmen: K. Durak, M. Greitbauer

8:30-8:50	J1	<b>Keynote lecture: Role of antegrade femoral nailing for fixation of osteoporotic distal femoral fractures</b> R. Varma <i>King's College Hospital, London, United Kingdom</i>	18'+2'
8:50-9:10	J2	<b>Keynote lecture: Treatment options in distal femoral fractures</b> M. Greitbauer <i>Universitätsklinikum St. Pölten – Lilienfeld, Department of Trauma Surgery and Sports Traumatology, Austria</i>	18'+2'
9:10-9:25	J3	<b>Surgical technique: supine patient position with the contralateral leg elevated for femoral intramedullary nailing</b> A. Firat <sup>1</sup> , O. Tecimel <sup>2</sup> <sup>1</sup> <i>Department of Orthopaedics and Traumatology, Kecioren Training and Research Hospital, Ankara, Turkey</i> <sup>2</sup> <i>Department of Orthopaedics and Traumatology, Atatürk Training and Research Hospital, Ankara, Turkey</i>	13'+2'
9:25-9:35	J4	<b>Technical details of double-curved IM nails</b> K. Durak <i>Department of Orthopaedics and Traumatology, Uludag University, Medical Faculty Research and Training Hospital, Turkey</i>	8'+2'
9:35-9:45	J5	<b>Intramedullary nailing of pathological fractures of the femur</b> O. Ilow <sup>1</sup> , K. Sarahrudi <sup>2</sup> , M. Greitbauer <sup>1</sup> <sup>1</sup> <i>Universitätsklinikum St. Pölten – Lilienfeld, Department of Trauma Surgery and Sports Traumatology, Austria</i> <sup>2</sup> <i>Medical University of Vienna, Department of Trauma Surgery, Austria</i>	8'+2'
9:45-9:55	J6	<b>The treatment of adult femoral shaft fractures with locked intramedullary nailing</b> A. Küçükcalp, T. Atici, E. Köseoglu, V. A. Durak, K. Durak <i>Department of Orthopaedics and Traumatology, Uludag University, Medical Faculty Research and Training Hospital, Turkey</i>	8'+2'





9:55-10:05 J7 **The Targon PH nail for distal femoral fracture fixation in severely disabled children - a report of three cases** 8'+2'  
R. Biber, H.-W. Stedtfeld, H. J. Bail  
*Klinikum Nürnberg, Department of Trauma and Orthopaedic Surgery, Germany*

10:05-10:11 J8 **Case report: Management of the open fracture - gunshot fracture of both femora** 5'+1'  
M. Schwarz  
*Landeskrankenhaus Mistelbach-Gänserndorf, Department of General and Orthopedic Trauma, Austria*

10:11-10:17 J9 **Non-union of a femoral shaft type B1 fracture after initial treatment with a 4.5 broad LC- DCP and further treatment of non-union with a reamed femoral nail** 5'+1'  
K. Gokkus<sup>1</sup>, A. T. Aydin<sup>1</sup>, H. Atmaca<sup>2</sup>  
<sup>1</sup> *Ozel Antalya Memorial Hospital, Department of Orthopaedics and Trauma, Turkey*  
<sup>2</sup> *Akdeniz University Medical School, Turkey*

**10:17-10:45 Coffee Break**

**10:45-11:25 Session K: PERIPROSTHETIC FRACTURES**  
Chairmen: R. Biber, F. Ortner

10:45-11:05 K1 **Keynote lecture: Periprosthetic femur fractures: nail versus plate** 18'+2'  
F. Ortner  
*Landeskrankenhaus Wr. Neustadt, Department for Trauma Surgery, Austria*

11:05-11:15 K2 **Intramedullary nailing in periprosthetic fractures about loose femoral stems** 8'+2'  
A. Chelnokov<sup>1</sup>, I. Piven<sup>1</sup>, A. Semenistyy<sup>2</sup>, A. Sitnik<sup>3</sup>  
<sup>1</sup> *Ural Research Institute of Traumatology and Orthopaedics, Ekatarinburg, Russia*  
<sup>2</sup> *City Hospital N13, Moscow, Russia*  
<sup>3</sup> *Republic Scientific and Practical Center for Traumatology and Orthopedics, Minsk, Belarus*

11:15-11:25 K3 **Antegrade closed interlocked nailing in fractures above total knee arthroplasty** 8'+2'  
A. Chelnokov, V. Samoylov, J. Karimov  
*Ural Research Institute of Traumatology and Orthopaedics, Ekatarinburg, Russia*







**11:25-12:21**

## **Session L: CLAVICLE/FOREARM**

Chairmen: R. Biber, F. Ortner

- |             |    |   |       |
|-------------|----|---|-------|
| 11:25-11:35 | L1 | <b>Intramedullary fixation versus anatomically contoured plating of clavicle shaft fractures - a one year follow-up study</b><br>R. King, S. Pretorius, A. Ikram, R. Lamberts<br><i>Tygerberg Academic Hospital, Division of Orthopaedic Surgery, Department of Surgical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, Cape Town, South Africa</i>   | 8'+2' |
| 11:35-11:41 | L2 | <b>Case report: Treatment of an instable lateral end clavicle fracture with combination of suture anchors in the coracoclavicular area and precountured anatomic locking plate fixation</b><br>K. Gokkus <sup>1</sup> , A. T. Aydin <sup>1</sup> , H. Atmaca <sup>2</sup><br><sup>1</sup> <i>Ozel Antalya Memorial Hospital, Department of Orthopaedics and Trauma, Turkey</i><br><sup>2</sup> <i>Akdeniz University Medical School, Turkey</i> | 5'+1' |
| 11:41-11:51 | L3 | <b>Locked nail osteosynthesis in forearm fractures</b><br>W. Friedl<br><i>Klinikum Aschaffenburg, Orthopaedics, Trauma and Hand Surgery, Germany</i>  | 8'+2' |
| 11:51-12:01 | L4 | <b>Technical aspects of intramedullary forearm fracture fixation in adults</b><br>T. Braunsteiner, O. Domaraczki<br><i>Al Ain Hospital, Surgical Institute, Orthopedic Department, Division of Trauma, United Arab Emirates</i>   | 8'+2' |
| 12:01-12:11 | L5 | <b>What's in a name? The definition of an unstable distal radius fracture, a systematic review of definitions</b><br>M. M. J. Walenkamp, L. Vos, J. C. Goslings, N. W. L. Schep<br><i>Academic Medical Centre, Trauma Unit, Department of Surgery, Amsterdam, The Netherlands</i>   | 8'+2' |
| 12:11-12:21 | L6 | <b>Salvage Procedures for septic forearm injuries using a TSF</b><br>S. Pretorius<br><i>Tygerberg Hospital, University of Stellenbosch, South Africa</i>  | 8'+2' |

**12:21-12:40**

**Coffee Break**

**12:40-14:30**

## **Session M: VARIA**

Chairmen: Th. Neubauer, P. Reynders

- |             |    |   |        |
|-------------|----|---|--------|
| 12:40-13:00 | M1 | <b>Keynote lecture: Suprapatellar nailing techniques - new toy waiting for problems?</b><br>P. Reynders<br><i>Brugmann Hospital, Brussel, Belgium</i> | 18'+2' |
|-------------|----|---|--------|





13:00-13:20	M2	<b>Keynote lecture: ESIN for the treatment of pediatric fractures</b> Th. Neubauer, D. Schubert, J. Brand <i>Landeskrankenhaus Horn-Allentsteig, Department of Trauma Surgery, Austria</i>	18'+2'
13:20-13:40	M3	<b>Keynote lecture: Orthopaedic care at Landstuhl Army Base</b> R. D. Zura <i>Duke University Hospital, Orthopaedic Surgery, Durham, United States</i>	18'+2'
13:40-13:50	M4	<b>Femoral condyle vascularized bone flap expanding indications and applications</b> H. Bürger <i>Privatklinik Maria Hilf, Klagenfurt, Austria</i>	8'+2'
13:50-14:00	M5	<b>Results from the use of a percutaneous intramedullary polymeric osteosynthesis - a case series</b> S. Troquay, S. A. M. Troquay, P. A. Vegt <i>Albert Schweitzer Hospital, Dordrecht, The Netherlands</i>	8'+2'
14:00-14:10	M6	<b>Boot camp? First impressions of a longitudinal gender based surgical and clinical skills training</b> G. Gradl, M. Knobe, B. Derntl <i>University of Aachen, Medical Center, Department of Orthopaedic Trauma, Germany</i>	8'+2'
14:10-14:20	M7	<b>Long term pain management</b> D. Easley <i>Psychiatry, Louisville, United States</i>	8'+2'
14:20-14:30	M8	<b>The microvascular osteo-(cutaneous) femur flap for trachea reconstruction</b> H. Bürger <i>Privatklinik Maria Hilf, Klagenfurt, Austria</i>	8'+2'

**14:45**                      **“Nails and More Presentation Award” Ceremony**

**Closing Words**



# ITS<sub>o</sub>

Implants  
trauma



**CTN**

Cannulated Tibia Nail

**CHN**

Cannulated Humeral Nail



**CFN**

Cannulated Femur Nail

For trauma surgery.  
[www.its-implant.com](http://www.its-implant.com)

  
ITS, GmbH  
28, 8301 Lassnitzhöhe, Austria  
Tel.: +43 (0) 316 / 211 21 0  
Fax: +43 (0) 316 / 211 21 20  
[office@its-implant.com](mailto:office@its-implant.com)  
[www.its-implant.com](http://www.its-implant.com)





## CONGRESS SPEAKERS / FIRST AUTHORS

## PRESENTATION CODE

### **Aktuglu K**

*Ege University Medical School, Department of Orthopaedics and Traumatology, İzmir, Turkey*

B1

### **Altintas B.**

*Klinikum Nürnberg, Department of Trauma and Orthopaedic Surgery, Germany*

C4, D6

### **Auer R.**

*University of Louisville, Orthopaedic Surgery, United States*

B6

### **Baltov A.**

*University Emergency Hospital "Pirogov", Orthopaedics&Trauma Surgery, Bulgaria*

D3

### **Biber R.**

*Klinikum Nürnberg, Department of Trauma and Orthopaedic Surgery, Germany*

C5, F2, J7

### **Braunsteiner T.**

*Al Ain Hospital, Surgical Institute, Orthopedic Department, Division of Trauma, United Arab Emirates*

L4

### **Bürger H.**

*Privatklinik Maria Hilf, Klagenfurt, Austria*

M4, M8

### **Chelnokov A.**

*Ural Research Institute of Traumatology and Orthopaedics, Ekatarinburg, Russia*

D7, K2, K3

### **Douglas L.**

*University of Louisville, Orthopaedic Surgery, United States*

C8

### **Durak K.**

*Department of Orthopaedics and Traumatology, Uludag University, Medical Faculty Research and Training Hospital, Turkey*

J4

### **Easley D.**

*Psychiatry, Louisville, United States*

M7

### **Eschler A.**

*University of Rostock, Department for Trauma, Hand and Reconstructive Surgery, Germany*

I4

### **Firat A.**

*Department of Orthopaedics and Traumatology, Kecioren Training and Research Hospital, Ankara, Turkey*

J3





<b>Friedl W.</b> <i>Klinikum Aschaffenburg, Orthopaedics, Trauma and Hand Surgery, Germany</i>	G5, I2, L3
<b>Giannoudis P.</b> <i>Leeds General Infirmary, Academic Department of Trauma &amp; Orthopaedics, United Kingdom</i>	C1
<b>Gobi H.</b> <i>Universitätsklinikum St. Pölten – Lilienfeld, Department of Trauma Surgery and Sports Traumatology, Austria</i>	A5
<b>Gokkus K.</b> <i>Ozel Antalya Memorial Hospital, Department of Orthopaedics and Trauma, Turkey</i>	J9, L2
<b>Gradl G.</b> <i>Klinikum München Harlachingen, Department for Trauma, Orthopedic and Reconstructive Surgery, Germany</i>	A2, D2
<b>Gradl G.</b> <i>University of Aachen Medical Center, Department of Orthopaedic Trauma, Germany</i>	D4, M6
<b>Greitbauer M.</b> <i>Universitätsklinikum St. Pölten – Lilienfeld, Department of Trauma Surgery and Sports Traumatology, Austria</i>	B5, J2
<b>Handojo K.</b> <i>University Hospitals Leuven, Traumatology, Belgium</i>	C2
<b>Harnoss T.</b> <i>Klinikum Kempten, Clinic of Orthopedics and Traumatology, Germany</i>	D5
<b>Henderson R. A.</b> <i>Duke University Hospital, Orthopaedic Surgery, Durham, United States</i>	G2
<b>Ilow O.</b> <i>Universitätsklinikum St. Pölten – Lilienfeld, Department of Trauma Surgery and Sports Traumatology, Austria</i>	J5
<b>Kdolsky R.</b> <i>Medical University of Vienna, Department of Trauma Surgery, Austria</i>	B2
<b>Kibbe S.</b> <i>University of Louisville, Orthopaedic Surgery, United States</i>	E4
<b>King R.</b> <i>Tygerberg Academic Hospital, Division of Orthopaedic Surgery, Department of Surgical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, Cape Town, South Africa</i>	L1





<b>Küçükalp A.</b> <i>Department of Orthopaedics and Traumatology, Uludag University, Medical Faculty Research and Training Hospital, Turkey</i>	J6
<b>Lee D.</b> <i>Severance Hospital, Orthopedic Surgery, Seoul, South Korea</i>	E3, E6, E8
<b>Negrin L. L.</b> <i>Medical University of Vienna, Department of Trauma Surgery, Austria</i>	F3, F5
<b>Neubauer Th.</b> <i>Landeskrankenhaus Horn-Allentsteig, Department of Trauma Surgery, Austria</i>	M2
<b>Ortner F.</b> <i>Landeskrankenhaus Wr. Neustadt, Department for Trauma Surgery, Austria</i>	K1
<b>Özkayin N.</b> <i>Ege University Medical School, Department of Orthopaedics and Traumatology, İzmir, Turkey</i>	A3, G4
<b>Panteli M.</b> <i>Leeds General Infirmary, Academic Department of Trauma &amp; Orthopaedics, United Kingdom</i>	C3, C7, C10, F4, F6, G6, I5
<b>Parker M.</b> <i>Peterborough City Hospital, United Kingdom</i>	G3
<b>Pretorius S.</b> <i>Tygerberg Hospital, University of Stellenbosch, South Africa</i>	C11, L6
<b>Reynders P.</b> <i>Brugmann Hospital, Brussel, Belgium</i>	F1, M1
<b>Roels N.</b> <i>University Hospitals Leuven, Department of Trauma Surgery, Belgium</i>	C9
<b>Sandmann G.-H.</b> <i>Klinikum rechts der Isar, Department of Traumatology, Technical University Munich, Germany</i>	H2
<b>Schwarz M.</b> <i>Landeskrankenhaus Mistelbach-Gänserndorf, Department of General and Orthopedic Trauma, Austria</i>	D8, G7, J8
<b>Seligson D.</b> <i>University of Louisville, Orthopaedic Surgery, United States</i>	I1
<b>Streufert B.</b> <i>Duke University Hospital, Orthopaedic Surgery, Durham, United States</i>	A4







<b>Tecimel O.</b> <i>Department of Orthopaedics and Traumatology, Atatürk Training and Research Hospital, Ankara, Turkey</i>	J3
<b>Thaller P. H.</b> <i>Ludwig-Maximilians-University, Campus Innenstadt, Munich, Germany</i>	E1, E7
<b>Thewanger G.</b> <i>Unfallkrankenhaus Linz, Austria</i>	G1
<b>Towarnicki J.</b> <i>University of Louisville, Orthopaedic Surgery, United States</i>	B4
<b>Troquay S.</b> <i>Albert Schweitzer Hospital, Dordrecht, The Netherlands</i>	M5
<b>Varma R.</b> <i>King's College Hospital, London, United Kingdom</i>	A1, B3, H1, J1
<b>Verbruggen J.</b> <i>Department of Trauma Surgery, Maastricht University Medical Center, The Netherlands</i>	D1
<b>Walenkamp M. M. J.</b> <i>Academic Medical Centre, Trauma Unit, Department of Surgery, Amsterdam, The Netherlands</i>	L5
<b>Wanzl M.</b> <i>Klinikum rechts der Isar, Department of Traumatology, Technical University Munich, Germany</i>	H3
<b>Wijnen V.</b> <i>University Hospitals Leuven, Traumatology, Belgium</i>	C6
<b>Wolf F.</b> <i>Klinik für Allgemeine, Unfall-, Hand- und Plastische Chirurgie der Universität München, LMU, 3D-Surgery, Germany</i>	E5
<b>Wozasek G. E.</b> <i>Medical University of Vienna, Department of Trauma Surgery, Austria</i>	E2
<b>Zak L.</b> <i>Medical University of Vienna, Department of Trauma Surgery, Austria</i>	I3
<b>Zura R. D.</b> <i>Duke University Hospital, Orthopaedic Surgery, Durham, United States</i>	M3





## Sponsors

*The organizing committee of the „Osteosynthese International 2014“ thanks the sponsors of the congress for their invaluable support!*

**ITS.**



**zimmer**  
Personal Fit. Renewed Life.™



**ChM**®

**ILLUMINOSS**®

**stryker**®

 **DePuy Synthes**

COMPANIES OF *Johnson & Johnson*

**ImplanTec**



**SANOFI**



**Landeskliniken-Holding**



**IHRE GESUNDHEIT. UNSER ZIEL.**





## Notes





## Notes







## Notes





## Notes





*"This practical treatment of fractures using a nail, the Küntscher procedure, is, in my eyes, a great revolution that will conquer the world."*

A. W. Fischer, 1944

