103rd Meeting of the German Society for Orthopaedics and Orthopaedic Surgery

DGÖOC President
Univ.-Prof. Dr. med. Andrea Meurer
Orthopedic University Hospital Friedrichsheim gGmbH
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81st Annual Meeting of the German Trauma Society

DGU President
Univ.-Prof. Dr. med. Ingo Marzi
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University Hospital, Goethe-University Frankfurt
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Straße des 17. Juni 106 - 108, 10623 Berlin, Germany
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58th Meeting of the Professional Association of Orthopaedics and Orthopaedic Surgeons

BVÖU Congress President
Prof. Dr. med. Alexander Beck
Hospital Würzburg Mitte gGmbH, Location Juliausspital
Department of Orthopedics, Trauma and Reconstructive Surgery
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☎ +49 30 797444-44, ☏ +49 30 797444-45
bvou@bvou.net, www.bvou.net

Guest Nation

United States of America

AAOS - American Association of Orthopaedic Surgeons
www.aaos.org
AAST - American Association for the Surgery of Trauma
www.aast.org
AOA - American Orthopedic Association
www.aoassn.org
ORS - Orthopaedic Research Society
www.ors.org
OTA - Orthopaedic Trauma Association
www.ota.org
POSNA - Pediatric Orthopaedic Society of North America
www.posna.org

Fiscal Organiser, Congress & Exhibition Management

Intercongress GmbH
Martin Berndt (Events), Anne Roetsch (Registration),
Carola Schröder (Congress), Kerstin Schwarz-Cloß (Industry)
Wilhelmstr. 7, 65185 Wiesbaden, Germany
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As of June 2017, subject to alterations

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Welcome

Motion is Life

is the congress theme of the German Congress of Orthopedic and Trauma Surgery 2017. Motion is a fundamental condition for our health – beginning with the various processes occurring every second in our body and finally resulting in the movement of our extremities. The loss of motion leads to functional deficits, to the loss of mobility and to a serious restriction of the quality of life. Keeping our motion and regaining lost motion is therefore one of the key goals of orthopedic and trauma surgery.

Sports and Motion have manifested themselves in our society as important topics for many years now. Many of us are exercising sport to keep fit and for having fun; many elderly people want to keep up with the younger generation. Topics such as popular and professional sports with their potential risks, the treatment of sport injuries, but also their prevention are essential contents of the congress of orthopedic and trauma surgery.

Regardless of age acute and chronic joint pain results in a restriction of joint motion. Regaining this lost motion through conservative treatment methods, by joint-preserving measures but also by joint replacing operations are central parts of the modern orthopedic surgery. Similarly, accidents cause motion restrictions, pain and loss of mobility; muscle and soft tissue damage result in functional disturbances and can lead to a compromised circulation. Multiple severe injuries and their acute blood loss can finally result in a life-threatening cardiac arrest. The prevention of these sequelae and the restoration of anatomy and function are the central parts of the surgical treatment.

Orthopedic and Trauma surgery incorporate a wide range of conservative treatment options, joint preserving and joint reconstructing procedures including minimal-invasive surgical procedures, optimized implants and joint replacing therapies. This is made possible by understanding the process of soft tissue healing and the origin of acute and chronic illnesses.

The various fields of orthopedic and trauma surgery with the underlying mechanisms as well as differentiated diagnostic tools and therapy and also the prevention and rehabilitation are topics of the DKOU 2017. The participation of the United States of America as this year’s guest nation will be a valuable enrichment for the congress, which has become more and more international each year.

Aside from the scientific topics, contemporary issues such as economical problems and the increasing regulation of education and working conditions will be discussed. The various societies, sections and working groups will get the possibility to present their achievements and are invited for inter-collegial exchange.

You all are warmly welcome to participate by attending our meeting. Join the German Congress of Orthopedic and Trauma Surgery 2017 in Berlin, we are looking forward to discussing with you the fascinating diagnostic and therapeutic options in orthopedics and traumatology with the goal of maintaining motion.

Univ.-Prof. Dr. med. Andrea Meurer
Univ.-Prof. Dr. med. Ingo Marzi
Prof. Dr. med. Alexander Beck
President DG0OC
President DGOU, DGU
Congress President BVOU

www.dkou.de
For admission to the congress program a valid congress ticket is required. Please confer the web program for current changes (www.dkou.de).

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<td>09:00 - 10:30</td>
<td>New York 1</td>
<td><strong>Stem cells in osteonecrosis (Annual ARCO meeting 2017)</strong> In cooperation with ARCO</td>
<td>Drescher W. (Schwarzenbruck), Goodman S. (Redwood City), Hernigou P. (Creteil), Jones Lynne C. (Baltimore)</td>
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<td></td>
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<td><strong>Modulating crosstalk between macrophages and mesenchymal stem cells to enhance bone formation</strong></td>
<td>Goodman S. (Redwood City), Lu L., Pajarinen J., Lin T., Gibon E., Nabeshima A., Nathan K., Yao Z.</td>
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<td></td>
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<td><strong>Stem cell therapy in osteonecrosis occurring after therapy for malignancy: Risks of tumor occurrence and transplantation at the site of stem cell treatment?</strong></td>
<td>Hernigou P. (Creteil)</td>
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<td><strong>The influence of stem cells, osteogenic pre-differentiation of stem cells and platelet lysate on bone regeneration and vascularization</strong></td>
<td>Zwingenberger S. (Dresden), Bolte Julia, Goodman S., Stiehler M., Gelinsky M., Vater Corina</td>
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<td><strong>Mid-term results of autologous concentrated bone marrow grafting for steroid-associated femoral head osteonecrosis with systemic lupus erythematosus</strong></td>
<td>Tomaru Y. (Tsukuba, Ibaraki), Sugaya H., Yoshioka T., Sakai S., Akaogi H., Ochiai N., Yamazaki M., Mishima H.</td>
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<td><strong>The BioCue concentrated bone marrow aspirate system in femoral head necrosis</strong></td>
<td>Drescher W. (Schwarzenbruck), Häne R., Merschin D., Pufe T.</td>
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<td><strong>EGFL8, a novel angiogenesis factor overexpresses in osteonecrosis of femoral head and promotes angiogenesis via MAPK/ERK signaling pathway</strong></td>
<td>Hong G. (Perth), Wei Q., Chen P., Wang H., Han Xiaorui, He W.</td>
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<td><strong>Decreased CD44/Ankyrin expression is associated with repressed AKT/eNOS signaling in osteonecrotic bone marrow cells</strong></td>
<td>Lin Ling-Chun (Kaohsiung), Huang T., Sung P., Wu C., Yip H., Lee M.</td>
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<td>965</td>
<td>Bajjiasu suppresses osteoncrosis of femoral head and abrogates osteoclast formation via RANKL-Induced pathways through NF-κB and NFAT</td>
<td>Hong G. (Perth), Wang H., Han Xiaorui, He W.</td>
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<td>1289</td>
<td>Cultured mesenchymal stem cells in the treatment of osteonecrosis of the femoral head</td>
<td>Hernandez A. (Barcelona), Velez R., Coll Ruth, García J., López Alba, Aguirre M.</td>
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<td>277</td>
<td>Restoration of the collapsed femoral head in subchondral fatigue fracture of the femoral head</td>
<td>Kim H. (Seoul), Yoo J.</td>
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**09:00 - 10:30 New York 3 International: in English**

**IN15** EFORT Forum: Fast track surgery - opportunity or threat?
In cooperation with EFORT

**Chair**
Günther K. (Dresden), Verhaar J. (Rotterdam), Wirtz D. (Bonn)

2000 Opening
5’ Günther K. (Dresden), Verhaar J. (Rotterdam)

2001 Fast track for everyone - how important are patient selection and clinical pathways?
10’ Günther K. (Dresden)

2002 Regional and general anaesthesia - what is the evidence of pain management?
10’ Wirtz D. (Bonn)

2003 Experiences in total hip arthroplasty
10’ Kjaersgaard-Andersen P. (Vejle)

2004 Experiences in total knee arthroplasty
10’ Verhaar J. (Rotterdam)

2005 Perspectives of fast track surgery in trauma care
10’ Schmal H. (Odense C)

2006 Socioeconomic impact of fast track surgery
10’ Dreinhöfer K. (Berlin)

20’ Roundtable

2007 Summary
5’ Günther K. (Dresden)
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<td>11:00 - 12:30</td>
<td>Dublin</td>
<td>IN41</td>
<td>Chinese-German trauma update</td>
<td>Gebhard F. (Ulm), Nerlich M. (Regensburg)</td>
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<td>Articular cartilage repair with bionic tissue engineering cartilage</td>
<td>Guo Q. (Beijing)</td>
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<td>Olecranon osteotomy approach for distal humeral fracture: Where and how should we go?</td>
<td>Yu B. (Shanghai)</td>
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<td>Reconstruction of huge soft tissue defects of limbs by combined transplantation of perforator flaps</td>
<td>Tang J. (Changsha)</td>
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<td>Skin stretching technique in soft tissue closure</td>
<td>Tang X. (Dalian)</td>
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<td>Treatment of femoral head fracture by surgical hip dislocation approach</td>
<td>Chen X. (Shanghai)</td>
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<td>Surgical treatment of geriatric fractures in mainland China</td>
<td>Liu F. (Nantong)</td>
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<td>IN12</td>
<td>New diagnostics in osteonecrosis</td>
<td>Drescher W. (Schwarzenbruck), Kim H. (Seoul), Steinberg M. (Philadelphia), Sugano N. (Osaka)</td>
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<td></td>
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<td>(Annual ARCO meeting 2017)</td>
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<td>Comparison of classification systems for osteonecrosis of the femoral head by evaluating necrotic lesion and prognosis</td>
<td>Takashima K. (Osaka, Suita), Sakai T., Hamada H., Takao M., Sugano N.</td>
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<td>The impact of anterior necrotic lesion on the femoral head collapse</td>
<td>Kubo Y. (Fukuoka), Motomura G., Ikemura S., Sonoda K., Fukushima J., Hamai S., Nakashima Y.</td>
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969 The utility of contrast-enhanced MR imaging for precise assessment of necrotic area in patients with osteonecrosis of the femoral head

Ikemura S. (Fukuoka), Utsunomiya T., Motomura G., Fukushi J., Hamai S., Yamamoto T., Nakashima Y.

1169 Evaluation parameters of microcirculation and fat quality in osteonecrosis of femoral head by using intra-voxel incoherent motion and entry/the least-squares estimation: A prospective pilot study

Han Xiaorui (Guangzhou), Hong G., Zhao Man, Liu Yu, He W., Leng X.

1194 T1rho/T2 mapping in MRI: A novel radiographic technology for determination of articular cartilage denaturalization with osteonecrosis of femoral head

Han Xiaorui (Guangzhou), Hong G., Zhao Man, Chen L., Leng X.

569 Clinical and radiological factors associated with bone resorption in patients with osteonecrosis of the femoral head

Baba S. (Fukuoka City), Motomura G., Ikemura S., Sonoda K., Kubo Y., Utsunomiya T., Hatanaka H., Nakashima Y.

1162 T1rho/T2 mapping MRI and 3D intraoperative micro-CT for investigating relationship between cartilage degeneration and trabecular structure in osteonecrosis of femoral head

Han Xiaorui (Guangzhou), Hong G., Chen L., Zhao Man, Liu Yu, Leng X.

408 An X-ray based evaluation approach to assess the efficacy of joint-preserving treatment for ONFH

Chen W. (Beijing)

1420 The natural history and treatment of osteonecrosis due to sickle cell disease

Reichert Ines (London)

1112 Hip osteonecrosis evaluation and management

Jones Lynne (Baltimore, MD), Goodman S., Cui Q., Kuwabara Anne, Mont M.
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<td>Joint physiology and biomechanics</td>
<td>Chair: Bader R. (Rostock), Burgkart R. (München), Peroglio Marianna (Davos)</td>
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<td>AO KEYNOTE: BIBONNE - Bioceramics for bone regeneration</td>
<td>Peroglio Marianna (Davos)</td>
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<td>Development and validation of a micro finite element model for the investigation of the pedicle screw-bone interface under different loading conditions</td>
<td>Chevalier Y. (München), Fertmann-Matsuura Maiko, Krüger S., Fleege C., Rauschmann M., Schilling C.</td>
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<td>Locked intraosseous nailing in transverse patella fractures - a biomechanical comparison to tension band wiring through cannulated screws</td>
<td>Gueorguiev B. (Davos), Nienhaus M., Stoffel K., Zderic I., Wahl D., Sommer C., Rommens P.</td>
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<td>721</td>
<td>Micro finite element analysis of the effect of bone density and anisotropy in periprosthetic bone and cement stresses after anatomical glenoid replacement</td>
<td>Santos Inês (München), Müller P., Pietschmann M., Chevalier Y.</td>
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<td>Effect of capsule repair on rotational and varus stability in PLRI reconstruction</td>
<td>Künzler M. (Bern), Akeda M., Ihn H., McGarry Michelle, Zumstein M., Lee T.</td>
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<td>Augmented LISS plating is biomechanically advantageous over conventional LISS plating</td>
<td>Gueorguiev B. (Davos), Todorov D., Zderic I., Stoffel K., Lenz M., Richards G., Enchev D.</td>
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<td>179</td>
<td>MR-based 3D PAO planning and simulation of hip impingement is as accurate as CT-based 3D models</td>
<td>Lerch T. (Bern), Degonda Celia, Zheng G., Todorski Inga, Schmaranzer F., Ecker T., Siebenrock K., Tannast M.</td>
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<td>807</td>
<td>Transmission ultrasound: A novel technique to quantify post-surgical recovery of the achilles tendon after rupture</td>
<td>Wulf M. (Brisbane), Shanker M., Lutz M., Hooper Sue L., Dlaska C., Brauner T., Wearing S., Schütz M.</td>
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IN13  Current treatment concepts in osteonecrosis  
(Annual ARCO meeting 2017)  
In cooperation with ARCO

Chair  Drescher W. (Schwarzenbruck), Koo K. (Sungnam),  
Mont M. (Cleveland), Tingart M. (Aachen)

404  Midterm results of delta ceramic-on-ceramic total hip arthroplasty in  
patients with osteonecrosis of femoral head  
5'3'  Lee Y. (Seongnam), Jo W., Yoo J., Yoon B., Ha Y., Koo K.

809  Treatment of osteonecrosis of the femoral head with pedicled vascularized  
iliac bone graft transfer: A multicenter study of 2190 cases  
5'3'  Zhao D. (Dalian), Xie H., Zhao D.

72  Treatment of osteonecrosis of femoral head with modified lightbulb  
operation: A 10-year follow-up study  
5'3'  Sun W. (Beijing), Li Z.

531  Medium-term outcomes of core decompression combined implantation  
of biomaterial-loaded allograft threaded cage for femoral head necrosis  

515  Porous tantalum rods in osteonecrosis of femoral head: A glass half  
full or half empty? 40 hips followed for at least of 5 years  
5'3'  He M. (Guangzhou), He W., Wei Q.

1203  Klinischer und MR-tomografischer Verlauf nach Hüftkopfanbohrung  
und Ilomedin-Therapie bei der Hüftkopfnecrose im Stadium I - III  
nach ARCO - eine Case Serie  
5'3'  Hiegel T. (Leipzig), Spiegl U., Josten C., Bohndorf K., Roth A.

1071  Behandlung von Osteonekrosen des Hüftkopfes mit Einbruch der  
subchondralen Lamelle und darüberliegendem Knorpelschaden  
5'3'  Landgraebser S. (Essen), Warwas S., Lazik-Palm Andrea, Haubold J.,  
Theysohn J., Jäger M.

1073  Total hip arthroplasty in patients with failed fibular grafting for the  
osteonecrosis of femoral head  
5'3'  Baek S. (Daegu), Min S., Yoon S., Kim S.
1242 Long-term outcomes of core decompression with free vascularized fibular graft in the treatment of osteonecrosis of the femoral head: A retrospective study
5'+3' He W. (Guangzhou), Chen L., Hong G., Hong Z., Chen Z., Fang B., Zhang Q., Han Xiaorui

292 Five-year follow-up study of a kidney-tonifying and activating-blood herbal fufang for osteonecrosis of the femoral head
5'+3' Wei Q. (Guangzhou), He W.

382 Outcome of a mini-resurfacing implant as an alternative treatment for local cartilage defects of the femoral head
5'+3' Flörkemeier T. (Hannover), Wirries N., Budde S., von Lewinski Gabriela, Windhagen H., Ezechieli M.

14:30 - 16:00 New York 3 International: in English

IN16 Strategies in treating (traumatic) femoral bone defects
In cooperation with AOTrauma

Chair Frey C. (Johannesburg), Schmidmaier G. (Heidelberg), Simmermacher R. (Utrecht)

3969 Introduction
5' Simmermacher R. (Utrecht)

3970 Principles in the treatment of bone defects
15' McFadyen I. (Cheshire)

3971 Contaminated traumatic bone defects
15' Frey C. (Johannesburg)

3972 Femur defects treated with Ilizarov
15' Tyllianakis M. (Patras)

3973 Femur defects: One or two-step repair?
15' Schmidmaier G. (Heidelberg)

20' Discussion

3974 Summary
5' Simmermacher R. (Utrecht)
16:30 - 18:00 Großer Saal

**SK14** Flatfoot Reconstruction
Sektion Deutsche Assoziation für Fuß und Sprunggelenk (D.A.F.)

Chair: Dohle J. (Wuppertal), Rammelt S. (Dresden), Stukenborg-Colsman Christina (Hannover)

03602 Effect of Cotton osteotomy or TMT arthrodesis on supination
10’+5’ Plaaß C. (Hannover)

03603 Effect of NC-arthrodesis on supination or medial column instability
10’+5’ Hamel J. (München)

03607 Sinus tarsi implants in adults?
10’+5’ N.N.

03604 Effect of soft tissue procedures on pes plano-valgus correction
10’+5’ Richter M. (Schwarzenbruck)

03606 Implants, Allografts or Autografts for calcaneal osteotomies?
10’+5’ Stukenborg-Colsman Christina (Hannover)

03605 Calcaneal osteotomies - where, when and how?
10’+5’ Rammelt S. (Dresden)

16:30 - 18:00 New York 1

**IN14** Basic research in osteonecrosis
(Annual ARCO meeting 2017)
In cooperation with ARCO

Chair: Cheng E. (Minneapolis, Minnesota), Drescher W. (Schwarzenbruck), Pufe T. (Aachen), Yamamoto T. (Fukuoka)

869 Quality of life assessment for patients with osteonecrosis of the femoral head - multicenter study
5’+3’ Sakai T. (Suita), Uesugi Yuko, Seki T., Hayashi S., Sugano N.

201 Role of growth factors in osteonecrosis of the femoral head
5’+3’ Pufe T. (Aachen), Beckmann R., Tohidnezhad Mersedeh, Fragoulis A., Jahr H., Drescher W.
270 Discovery of Glycan biomarkers in serum of osteonecrosis of the femoral head
5’+3’ Chen P. (Guangzhou), Song Ting, Wang H., He W., Lebrilla C.

174 Symptomatic hip osteonecrosis and oral corticosteroids for one week or less
5’+3’ Hernigou P. (Creteil)

183 Link between non-traumatic osteonecrosis of femoral head and major adverse cardiovascular and cerebrovascular events: A nationwide population-based cohort study
5’+3’ Sung P. (Kaohsiung), Yang Y., Yip H., Lee M.

832 Association between vascular endothelial growth factor gene polymorphisms and the risk of osteonecrosis of the femoral head: Systematic review
5’+3’ Hong G. (Perth), Chen L., Chen X., He W.

209 Nationwide study on the risk of venous thromboembolism in non-traumatic osteonecrosis of femoral head
5’+3’ Sung P. (Kaohsiung), Yang Y., Yip H., Lee M.

1465 Early cartilage denaturalization with bone marrow edema in osteonecrosis of femoral head: Evaluation by T1rho and T2 mapping MRI imaging-a pilot study
5’+3’ Han Xiaorui (Guangzhou), Hong G., Zhao Man, Liu Yu, Leng X.

162 Free vascularized fibular grafting improves the vascularity of osteonecrosis of the femoral head: A randomized, self-controlled clinical trial
5’+3’ Cao L. (Shanghai), Guo C., Chen J., Zhang J., Hua B., Li C., Chen Z., Yan Z.

1078 Imbalanced bone turnover markers and low bone mineral density in patients with osteonecrosis of femoral head
5’+3’ Tian Lulu (Daegu), Baek S., Kim T., Kim S.

340 Alcohol intake and the risk of osteonecrosis of the femoral head: A dose-response meta-analysis of case-control studies
5’+3’ Yoon B. (Seoul), Jo W., Yoo J., Lee Y., Ha Y., Koo K.
### 16:30 - 18:00  
**New York 3**  
**Basic Research**

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<td><strong>Chair</strong>&lt;br&gt;Blunk T. (Würzburg), Englund M. (Lund), Henrich D. (Frankfurt)</td>
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<td>2009</td>
<td><strong>ORS KEYNOTE: The tale of the meniscus and osteoarthritis</strong>&lt;br&gt;&lt;br&gt;<strong>Englund M. (Lund)</strong></td>
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<td>359</td>
<td>Complement receptors C5aR1 and C5aR2 differentially influence bone metabolism</td>
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<td>Hägele Yvonne (Ulm), Bergdolt Stephanie, Matthes Rebecca, Kovtun Anna, Ignatius Anita</td>
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<td>143</td>
<td>Chronic psychosocial stress disturbs the immune response and endochondral ossification after fracture</td>
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<td>Comparison of osteoblasts from patients with osteoporosis and patients with coxarthrosis combined with osteoporosis</td>
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<td>Niedermair Tanja (Regensburg), Craiovan B., Grifka J., Grässel Susanne</td>
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<td>Platelet-rich plasma as an autologous and pro-angiogenic cell delivery system</td>
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<td>Zahn Jessica (Davos), Loibl M., Sprecher C., Nerlich M., Alini M., Verrier Sophie, Herrmann Marietta</td>
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<td>1204</td>
<td>Hyaluronic acid facilitates chondrogenesis and matrix deposition of human adipose derived mesenchymal stem cells and human chondrocytes co-cultures</td>
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<td>Rosado Balmayor Elizabeth (München), Amann Elisabeth, Wolff P., Breel E., van Griensven M.</td>
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<td>Specific patterns of the spatial organization of joint surface chondrocytes predict the extend of injury-induced chondrocyte death</td>
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<td>Saager Laura Victoria (Tübingen), Ochs B., Kurz B., Südkamp N., Rollaufs B.</td>
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<td>443</td>
<td>Longitudinal analysis of early healing events after human Achilles tendon tear</td>
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<td>Klatte-Schulz Franka (Berlin), Minkwitz Susann, Schmock Aysha, Kurtoglu A., Tsitsilonis S., Manegold S., Wildemann Brita</td>
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</tbody>
</table>
### New York 1
**IN17 Thoracic trauma**
In cooperation with AAST

**Chair**
Fabian T. (Memphis), Leenen L. (Utrecht), Peitzman A. (Pittsburgh)

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>09:00</td>
<td>Current management of blunt thoracic aortic injury</td>
<td>Fabian T. (Memphis)</td>
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<tr>
<td>09:15</td>
<td>Esophageal injuries</td>
<td>Peitzman A. (Pittsburgh)</td>
</tr>
<tr>
<td>09:30</td>
<td>Thoracic wall - important for the success of blunt thoracic trauma</td>
<td>Leenen L. (Utrecht)</td>
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<tr>
<td>09:45</td>
<td>Pneumonia in severely injured, critically ill patients with thoracic trauma</td>
<td>Wutzler S. (Frankfurt)</td>
</tr>
<tr>
<td>10:00</td>
<td>Discussion</td>
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</tbody>
</table>

### New York 3
**IN29 DKOU meets AAOS – Total knee replacement up-date**
In cooperation with AAOS

**Chair**
Krauspe R. (Düsseldorf), Maloney W. (Stanford)

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>09:00</td>
<td>AAOS KEYNOTE: Why do TKR fail?</td>
<td>Maloney W. (Stanford)</td>
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<tr>
<td>09:20</td>
<td>How to analyse and revise failed TKR</td>
<td>Windhagen H. (Hannover)</td>
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<td>09:35</td>
<td>Individual implants - improvement of outcome in TKR</td>
<td>Rudert M. (Würzburg)</td>
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<tr>
<td>09:50</td>
<td>Management of large defects and periprosthetic fractures in TKR revisions</td>
<td>Wirtz D. (Bonn)</td>
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<tr>
<td>10:10</td>
<td>Discussion</td>
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### Paris 1
**F012 Clinical Scientist - the future at the universities**
Ausschuss Junges Forum

**Chair**
Gebhard F. (Ulm), Hofmann Valeska (Tübingen), Loibl M. (Regensburg)

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>11:00</td>
<td>Key factors to successfully conduct clinical research - an overview</td>
<td>Joeris A. (Dübendorf)</td>
</tr>
</tbody>
</table>
Get started in basic research: Do not procrastinate, plan ahead
15’+3’
*Docheva Denitsa (Regensburg)*

How to get your research published
15’+3’
*Reider B. (Chicago, Illinois)*

Career as young clinical scientist
15’+3’
*Kalbitz Miriam (Ulm)*

Emmy Noether - the perfect career start
15’+3’
*Huber-Lang M. (Ulm)*

**11:00 - 12:30 New York 1**

**IN18 Abdominal trauma**
In cooperation with AAST and ESTES

Chair
*Fabian T. (Memphis), Leppäniemi A. (Helsinki), Peitzman A. (Pittsburgh)*

2086 Pathophysiology of damage control surgery
15’
*Zago M. (Bergamo)*

2087 Abdominal wall reconstruction for the uncosable damage control laparotomy
15’
*Fabian T. (Memphis)*

2088 Major liver injuries
15’
*Peitzman A. (Pittsburgh)*

2089 Pancreatic and duodenal injuries
15’
*Leppäniemi A. (Helsinki)*

3921 Colo-rectal injuries
15’
*Tilsed J. (Hull)*

15’ Discussion

**11:00 - 12:30 New York 3**

**IN30 DKOU meets AOA - Ligaments and meniscus treatment**
In cooperation with AOA

Chair
*Angele P. (Regensburg), Wirtz D. (Bonn), Wright R. (Chesterfield)*

2604 AOA KEYNOTE: Multi-center based outcomes of primary and revision ACL-reconstruction
30’
*Wright R. (Chesterfield)*

2600 PCL-reconstruction: Indications, techniques, outcomes and pitfalls
10’+5’
*Imhoff A. (München)*

2601 Treatment concepts of infection after ACL/PCL reconstruction
10’+5’
*Petersen W. (Berlin)*
2602 Meniscus tear treatment: Outcomes of different repair techniques
10’+5’ Pagenstert G. (Basel)

2603 Meniscus replacement: When, how, for whom?
10’+5’ Angele P. (Regensburg)

11:00 - 12:30 London 2 Basic Research

GR16 Osteoarthritis and cartilage
In cooperation with ORS

Chair Grässel Susanne (Regensburg), Mason Deborah (Cardiff), Zaucke F. (Frankfurt)

2010 ORS KEYNOTE: Repurposing glutamate receptor antagonists to prevent and treat osteoarthritis
18’+3’ Mason Deborah (Cardiff)

307 Establishment of a proinflammatory and degenerative intervertebral disc ex vivo system to investigate anti-inflammatory therapies for degenerative disc disease
6’+3’ Lang G. (New York), Liu Yishan, Geries Janna, Kubosch D., Südkamp N., Alini M., Grad Sibylle, Li Zhen

607 Extracellular matrix development and cell invasion at the defect site in an in vitro model for cartilage integration
6’+3’ Berberich O. (Würzburg), Kiepe F., Kossmann A., Böck T., Meffert R., Hölscher-Doht Stefanie, Richter Wiltrud, Blunk T.

735 An animal study for evaluating the best cell source for regenerative autologous meniscus treatment in an early osteoarthritis situation - a comparison between mesenchymal stem cells and meniscal cells
6’+3’ Zellner J. (Regensburg), Pattappa G., Koch M., Pfeifer C., Müller M., Kujat R., Nerlich M., Angele P.

527 Development of an in vitro model mimicking early osteoarthritis using mesenchymal stem cells undergoing chondrogenic differentiation
6’+3’ Hofmeister Isabelle (Regensburg), Pattappa G., Seja Jennifer, Zellner J., Nerlich M., Docheva Denitsa, Angele P.

505 Absence of substance P ameliorates cartilage and bone phenotypes in surgery-induced and age-related osteoarthritis
6’+3’ Muschter Dominique (Regensburg), Späth Tanja, Grifka J., Grässel Susanne

441 The influence of substance P and alphaCGRP on articular chondrocytes from osteoarthritic patients
6’+3’ Stöckl Sabine (Regensburg), Pasoldt Anja, Grifka J., Grässel Susanne
Modulation of injury-induced chondrocyte death by CCN2, a novel master regulator of cartilage homeostasis

Holweg M. [Tübingen], Meder A., Südkamp N., Ochs B., Böhme Karen A., Kurz B., Rolauffs B.

14:30 - 16:00 New York 1 New York 1 International: in English

IN19 New insights in treatment of pelvic trauma
In cooperation with ESTES

Chair Keel M. (Bern), Fabian T. (Memphis), Rommens P. (Mainz)

3054 Total body CT with contrast followed by angio-embolization
10'+5' Lustenberger T. (Frankfurt)

3055 The role of pelvic packing in USA
10'+5' Fabian T. (Memphis)

3056 Antishock iliosacral screw
10'+5' Varga E. (Szeged)

3057 Morelle-Lavallee lesions - when and how to treat?
10'+5' Keel M. (Bern)

3058 Iliolumbar fixation - when and how?
10'+5' Josten C. (Leipzig)

3059 Minimal-invasive treatment of FFP
10'+5' Rommens P. (Mainz)

14:30 - 16:00 New York 3 New York 3 International: in English

IN31 Management of complications in hip arthroplasty
In cooperation with AORecon

Chair Günther K. (Dresden), Jiranek W. (Richmond)

2578 The problem of bilateral hip arthritis – single or staged procedure
10' Windhager R. (Wien)

2579 Total hip in patients with prior spine surgery: How to adjust the surgery
10' Böttner F. (New York)

2564 Can modern technologies help to prevent dislocation?
10' Sculco P. (New York)

2570 Osteopenic bone – handle the challenge!
10' Thornhill T. (Boston)

2569 How to prevent the “taper problem”? 
10' Günther K. (Dresden)
2562 Acetabular osteolysis – when to retain, when to replace?
Perka C. (Berlin)

2561 My algorithm for the painful hip
Jiranek W. (Richmond)

20' Discussion

16:30 - 18:00 New York 1
International: in English

IN20 Polytrauma and severe TBI - co-management
In cooperation with ESTES

Chair Lustenberger T. (Frankfurt), Maegele M. (Köln), Steudel W. (Homburg)

2095 Intracranial pressure monitoring and Brain Trauma Foundation Guidelines
Talving P. (Tartu)

2098 CT in Trauma (subgroup analysis TBI)
Goslings C. (Amsterdam)

2094 EU-TACTIC: Data-driven protocols to treat TIC
Brohi K. (London)

2096 CENTER-TBI: Novel strategies and technologies for enhanced brain monitoring after TBI
Sakowitz Ö. (Ludwigsburg)

2097 “Ziel” Project
Maegele M. (Köln)

15' Discussion

16:30 - 18:00 New York 3
International: in English

IN32 Management of complications in knee arthroplasty
In cooperation with AORecon

Chair Perka C. (Berlin), Thornhill T. (Boston)

2572 Recurrent effusion after TKA
Windhager R. (Wien)

2577 The persistence of axial deformity - really an issue?
Böttner F. (New York)

2575 The moderate unstable knee
von Eisenhart-Rothe R. (München)

2576 The persistence of anterior knee pain
Jiranek W. (Richmond)
The damaged extensor mechanism
von Roth P. (Berlin)

Quad atrophy after TKA – is it a problem and how to avoid?
Thornhill T. (Boston)

Case discussion
Hube R. (München)

16:30 - 18:00
London 2

Basic Research

GR18 Bone biology and repair
In cooperation with AO Research Institute Davos

Chair
Henrich D. (Frankfurt), Ignatius Anita (Ulm), Zeiter S. (Davos)

2011 AO KEYNOTE: First class science can’t be done with second class preclinical surgical practice and models
Zeiter S. (Davos)

18'+3' NADPH-oxidase 4 might represent a pivotal molecular target in improving the osteogenic differentiation potential of regular as well as osteogenically dysfunctional human bone marrow mesenchymal stem cells
Strangmann Dana (Düsseldorf), Suschek C., Windolf J.

6'+3' Calca signaling controls the osteoanabolic effect of intermittent PTH
Keller J. (Berlin), Jeschke Anke, Schwabe P., Amling M., Schinke T.

706 Absence of the sensory neuropeptide substance P alters osteoblast and osteoclast metabolism
Niedermair Tanja (Regensburg), Schirner S., Seebröker R., Straub R., Grifka J., Grässel Susanne

810 Differential expression of mitochondrial and ribosomal genes during fracture healing in mouse
Malhan Deeksha (Gießen), Schmidt-Bleek Katharina, Duda G., Heiß C., El Khassawna T.

1088 A skeletally matured osteoporotic ovine model for studying metaphyseal fracture healing and testing of new biomaterials
Alagboso Francisca (Gießen), Ray Seemun, Thormann U., Sommer Ursula, Budak M., Kaiser A., Kampschulte M., Alt V.

519 Autologous bone marrow aspirate enhanced microfracture counteracts the early loss of subchondral bone in a translational model of osteochondral repair
Gao L. (Homburg), Müller-Brandt Kathrin, Orth P., Goebel L., Cucchiarini Madry Magali, Madry H.

1441 Treatment of bone marrow lesions of the foot and ankle in complex regional pain syndrome type I with ibandronate - a randomized trial
Bartl C. (München), Bartl R.
### Congress Program - Thursday, 26.10.2017

**09:00 - 10:30 New York 1**

**IN21 VKO meets POSNA: Spine**  
Sektion Vereinigung Kinderorthopädie (VKO); in cooperation with POSNA

**Chair**  
Hasler C. (Basel), Karol Lori (Dallas)

<table>
<thead>
<tr>
<th>Session ID</th>
<th>Title</th>
<th>Speaker(s)</th>
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<tr>
<td>2582</td>
<td>Differential rod contouring for 3D correction of AIS</td>
<td>Schwend R. (Kansas City)</td>
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<tr>
<td>2583</td>
<td>Early onset scoliosis and pulmonary function</td>
<td>Karol Lori (Dallas)</td>
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<tr>
<td>2584</td>
<td>Flexible tethering</td>
<td>Newton P. (San Diego)</td>
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<tr>
<td>2585</td>
<td>Posterior hemivertebrae resection – indications, technique and results</td>
<td>Mladenov K. (Sankt Augustin)</td>
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<tr>
<td>2586</td>
<td>Early onset spine deformities – remaining challenges</td>
<td>Hasler C. (Basel)</td>
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<tr>
<td>2587</td>
<td>Management of early onset hyperkyphosis</td>
<td>Stücker R. (Hamburg)</td>
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</table>

**09:00 - 10:30 New York 3**

**IN33 Arthroplasty - the young patient**

**Chair**  
Delank K.-S. (Halle), Kirschner S. (Karlsruhe), Kohn D. (Homburg)

<table>
<thead>
<tr>
<th>Session ID</th>
<th>Title</th>
<th>Speaker(s)</th>
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<tr>
<td>976</td>
<td>Total hip arthroplasty for developmental dysplasia: Mid-term results</td>
<td>Gómez J. (San Salvador), Gómez R.</td>
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<tr>
<td>650</td>
<td>Anatomic vs. High Rotation Center in total hip arthroplasty for high developmental dysplasia</td>
<td>Gómez J. (San Salvador), Gómez R.</td>
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<tr>
<td>973</td>
<td>Results of the total hip replacement in patients with dysplasia who were operated in childhood</td>
<td>Markov D. (Saratov), Zvereva Ksenya</td>
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<tr>
<td>1216</td>
<td>Total hip arthroplasty in Crowe type III and IV developmental dysplasia of the hip</td>
<td>Taheriazam A. (Tehran), Safdari F.</td>
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<tr>
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<td>Authors/Institutions</td>
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<td>1212</td>
<td>Total hip arthroplasty for fused hip</td>
<td>Taheriazam A. [Tehran], Safdari F.</td>
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<td>1063</td>
<td>Iliopsoas impingement after THR</td>
<td>Caviglia H. [Cuidad Autónoma de Buenos Aires], Gomez L., Bugallo F., Cambiaggi G., del Soldato G., Galatro G.</td>
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<tr>
<td>561</td>
<td>Is AVN due to systemic lupus erythematous associated with increased risk of complications following THA?</td>
<td>Cui Q. [Charlottesville, VA], Cancienne J., Werner B.</td>
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<td>387</td>
<td>Analysis of influencing factors on the migration pattern of short stem arthroplasty - a prospective RSA-analysis</td>
<td>Flörkemeier T. [Hannover], Schwarze M., von Lewinski Gabriela, Hurschler C., Windhagen H., Budde S.</td>
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</table>

**11:00 - 12:30 Paris 2**

**IN38 Complex tibia fractures**

*In cooperation with OTA*

**Chair**

Marzi I. (Frankfurt), Miclau T. (San Francisco)

**2012**

The Orthopaedic Trauma Association (OTA): An introduction and update

**10'**

Ricci M. (New York)

**2013**

Tibia fractures and compartment syndrome: Recommendations on the timing and type of fixation

**15'**

Pape C. (Zürich)

**2014**

Intraarticular tibia fractures with extensive diaphyseal extension: Tips and tricks of management

**15'**

Krettek C. (Hannover)

**2015**

Tibia fractures with extensive segmental bone loss: What is the best approach?

**15'**

Norris B. (Oklahoma)

**2016**

How do I know when a fracture has healed?

**15'**

Miclau T. (San Francisco)

**20'**

Discussion
<table>
<thead>
<tr>
<th>Time</th>
<th>New York 1</th>
<th>International: in English</th>
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<tr>
<td>11:00 - 12:30</td>
<td><strong>IN22</strong> VKO meets POSNA: Hip</td>
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<td></td>
<td>Sektion Vereinigung Kinderorthopädie (VKO); in cooperation with POSNA</td>
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<td><strong>Chair</strong> Rödl R. (Münster), Schwend R. (Kansas City), Wirth T. (Stuttgart)</td>
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<tr>
<td>2595</td>
<td>Early diagnoses of DDH: The AAP and POSNA approach</td>
<td>Schwend R. (Kansas City)</td>
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<td>2594</td>
<td>Early diagnoses of DDH: The VKO approach</td>
<td>Krauspe R. (Düsseldorf)</td>
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<td>2596</td>
<td>Medial approach open reduction of the hip in DDH</td>
<td>Karol Lori (Dallas)</td>
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<td>2597</td>
<td>Biomechanical effects of prox. femoral osteotomies</td>
<td>Rödl R. (Münster)</td>
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<td>2598</td>
<td>Hip reconstruction in Perthes disease</td>
<td>Dreher T. (Heidelberg)</td>
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<td>12’+3’</td>
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<td>2599</td>
<td>Hip stability during femoral lengthening</td>
<td>Herzenberg J. (Baltimore)</td>
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<tr>
<td>11:00 - 12:30</td>
<td><strong>IN34</strong> Tribocorrosion</td>
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<td>In cooperation with EHS</td>
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<td><strong>Chair</strong> Siebert W. (Kassel), Thorey F. (Heidelberg)</td>
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<tr>
<td>2127</td>
<td>Tribocorrosion: Concepts and clinical ramifications</td>
<td>Jacobs J. (Chicago)</td>
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<td>2128</td>
<td>Tribocorrosion of metal junctions</td>
<td>Wimmer M. (Chicago)</td>
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<td>18’+4’</td>
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<td>3976</td>
<td>What do retrieval studies tell us?</td>
<td>Morlock M. (Hamburg)</td>
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<tr>
<td>3975</td>
<td>Material influence on fretting corrosion of head/stem connections?</td>
<td>Streicher R. (Feusisberg)</td>
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</table>
IN23 Cutting-edge musculoskeletal tumour surgery

Chair Rudert M. (Würzburg), Yaszemski M. (Rochester)

2518 Chordoma: This is the way to deal with it
15’+5’ Yaszemski M. (Rochester)

2542 Bone defects in tumor surgery - the clinical aspect
15’+5’ Benevenia J. (New Jersey)

2991 Surface-modified megaprostheses for the treatment of osseous defects after sarcoma resection
12’+3’ Hardes J. (Münster)

2992 Novel sarcoma models to accelerate the translation of new therapeutic strategies from bench to bedside
12’+3’ Leithner A. (Graz)

2543 Tissue engineering in bone tumour surgery
12’+3’ Holzapfel B. (Würzburg)

2993 Summary
5’ Rudert M. (Würzburg)

IN35 Fractures and joint injuries - upper extremity

Chair Nijs S. (Leuven), Marzi I. (Frankfurt), Wendt K. (Groningen)

1356 Surgery not superior to non-operative therapy in the treatment of anterolateral shoulder pain. A randomised controlled study with 12-year follow-up
6’+3’ Ketola Saara (Tampere)

1363 Decreasing range of external rotation in abduction with overhead sportsmen after arthroscopic shoulder stabilisation
6’+3’ Medenica I. (Belgrade)

707 Slap lesions in high level sport climbers: Outcome after primary surgical long biceps tenodesis
6’+3’ Schöffl V. (Bamberg), Popp D., Lutter C., Küpper T., Benedikt O.

1125 Surgical treatment of 4-part fractures of the proximal humerus in the elderly: Plate fixation or reversed shoulder arthroplasty?
6’+3’ Kirchhoff C. (München), Deeb A., Abuljadail S., Biberthaler P., Beirer M.
1408  Plate fixation of proximal humeral fractures: A comparative study of postoperative complications in two European countries
6’+3’  Quaile O. [Luzern], Link B., Babst R., Beeres F.

161  The influence of local bone quality on fracture pattern in proximal humerus fractures
6’+3’  Mazzucchelli R. [St. Gallen], Jenny Katharina, Zdravkovic V., Jost B., Spross C.

14  Silver-coated endoprosthetic replacement of the proximal humerus in case of tumour - is there an increased risk of periprosthetic infection by using a trevira tube?
6’+3’  Schmolders J. [Bonn], Koob S., Kehrer M., Wirtz D., Pennekamp P., Strauß A.

1343  Long-term follow-up after implantation of a bipolar radial head prosthesis vs. osteosynthesis to treat complex radial head fractures - a matched pair retrospective study
6’+3’  Steimer D. [Hannover], Badura Samantha, Meier R., Omar M., Krettke C., Panzica M.

753  The ACJ dislocation due to its ligaments avulsion fracture: Their clinical presentations and the results of surgical treatments
6’+3’  Wu X. [Shanghai]

16:30 - 18:00  New York 1  International: in English

IN24  VKO meets POSNA: Foot
Sektion Vereinigung Kinderorthopädie (VKO); in cooperation with POSNA

Chair  Eberhardt O. [Stuttgart], Herzenberg J. [Baltimore]

2588  Considerations on flatfoot – differential diagnosis and therapy
12’+3’  Döderlein L. [Aschau]

2589  Pes cavus: What to do when you see it?
12’+3’  Schwend R. [Kansas City]

2590  Ponseti and the French functional [physical therapy] method
12’+3’  Karol Lori [Dallas]

2591  Atypical clubfoot acquired or genuine?
12’+3’  Eberhardt O. [Stuttgart]

2592  Foot and Frame – Ponsetaylor and more
12’+3’  Herzenberg J. [Baltimore]

2593  Astragalectomy an obsolete technique?
12’+3’  Rödl R. [Münster]
IN36 Fractures and joint injuries - lower extremity

Chair

16:30 - 18:00 New York 3 International: in English

1462 Comparison of the outcome between conventional open technique and minimally invasive technique using dynamic hip screw fixation for inter-trochanteric fracture of femur

Begue T. (Bobigny Cedex), Rose S. (Ettelbruck), Trentz O. (Zürich)

926 Analysis of risk factors for failure of proximal femoral nailing (PFN-A) in intertrochanteric fractures

Maharjan R. (Dharan), Shrestha B., Khanal G., Chaudhary P., Rijal R.

93 Development of a new CT based classification system for tibial plateau fractures. Introducing the ”GT System”

Börnert Katja (Luzern), Beeres F., Jiamton C., Babst R., Link B.

1025 Extracorporeal shockwave therapy (ESWT) for femur neck pseudarthrosis - an alternative to surgery?

Bätje F. (Hannover)

272 A novel minimally invasive local osteo-enhancement procedure [LOEP] to treat osteoporotic femurs

Howe J. (Rockville), Huber B.

424 Improved early weight bearing by increased vertical loads after distal tibial fracture with an angle stable locking system compared to conventional intramedullary nailing

Agres Alison (Berlin), Höntzsch D., El Attal R., Schaser K., Pohlemann T., Joeris A., Hess Denise, Duda G.

618 Distal tibial fractures treated with the “one-stage” external inflammation and minimal osteosynthesis

Milenkovic S. (Nis), Mitkovic M., Mitkovic M.

182 Functional medium term results after autologous matrix-induced chondrogenesis (AMIC) for osteochondral lesions of the talus - a 5 years prospective cohort study

Gottschalk O. (München), Altenberger S., Baumbach S., Walther M.

368 The efficacy of multiple drilling and alendronate compared with multiple drilling alone in the treatment of osteonecrosis of the femoral head

Wu C. (Kaohsiung), Chen Y., Huang K., Peng K., Wang J., Lee M.
09:00 - 10:30  New York 1  International: in English

**IN25**  Arthroplasty and revision arthroplasty - hip cup/stem

Chair  Decking R. [Leverkusen], Grifka J. [Bad Abbach], Zilkens C. [Düsseldorf]

231  Quality assurance in primary hip arthroplasty  
6’+3’  Koutras C. [Ratingen], Becker Isabel, Heep H.

233  Economic analysis of a health system for hip and knee arthroplasty  
6’+3’  Koutras C. [Ratingen], Bitsaki Marina, Koutras G., Heep H.

464  The RM Pressfit vitamys: 5-year Swiss experience of the first 100 cups  
6’+3’  Weidner J. [Luzern 16], Wyatt M., Beck M.

806  In vitro data suggest reversibility of MoM wear induced decrease in osteogenic capacity of mesenchymal stromal cells  
6’+3’  Rakow Anastasia [Berlin], Duda G., Perka C., Schoon J.

703  Bone preserving short stem: Mid-term results with special regard to AVN of the hip  
6’+3’  Drescher W. [Scharzenbruck], Häne R., Pufe T., Merschin D.

1042  Clinical and radiographic results with a new short stem at minimum 6 years of follow-up  

954  SMF stem in total hip arthroplasty - three-year follow-up  
6’+3’  Lachowicz W. [Torrevieja/Alicante], Berg K., Cobo Clara, Vargas Maritere

1188  Third decade clinical and radiographic results of a grit-blasted straight press-fit stem  

377  Intra- and postoperative fractures and femoral shortened stem - about a prospective series of 735 cases  
6’+3’  Puch J. [Nice], Descamps L., Dehri G.

09:00 - 10:30  New York 3  International: in English

**IN37**  Future strategies for bone regeneration  
In cooperation with ESTROT

Chair  Alt V. [Gießen], Giannoudis P. [Leeds], Masquelet A. [Bobigny]

2155  Update Diamond Concept – what are we doing now and what will be the perspective for the future?  
10’+5’  Giannoudis P. [Leeds]
Megaprostheses for treatment of segmental bone defects versus reconstruction
Calori G. (Milano)

Masquelet Technique – can we improve the biological chamber?
Masquelet A. (Bobigny)

Antibiotica coated implants – a useful tool to improve the outcome in infected non unions
Raschke M. (Münster)

RIA – A meta-analysis of clinical outcome
Pape H. (Zürich)

BMPs – do we really need them?
Begue T. (Bobigny Cedex)

11:00 – 12:30 New York 1

Arthroplasty and revision arthroplasty - hip revision

Chair
Decking J. (Sursee), Jansson V. (München), Reichel H. (Ulm)

Is dual mobility total hip arthroplasty associated with an increased risk of revision for infection? Matched cohort of 231 dual mobility cups and 231 fixed cups
Prudhon J. (Grenoble), Desmarchelier R., Hamadouche M., Delaunay C., Verdier R.

Low friction arthroplasty and dual mobility cup: A new gold standard
Prudhon J. (Grenoble), Verdier R., Caton J.

Revision total hip arthroplasty using acetabular reconstruction cage
Taheriazam A. (Tehran), Safdari F.

Femoral hip revision arthroplasty using a modular hexagonal uncemented stem in femoral Paprosky type 3 defects – clinical and radiographic results of 51 cases
Acker V. (Berlin), Ebeling A., Reichert J., von Rottkay E., Nöth U., Rackwitz L.

Total femur replacement in no tumoral patients. Follow-up of five patients
Caviglia H. (Ciudad Autónoma de Buenos Aires), Douglas Price Ana, Cambiaggi G., Vatani N., Galatro G.

Patient outcome after total femur replacement - a single center retrospective analysis of indication, complication and outcome
Graulich T. (Hannover), Omar M., Weber-Spickschen S., Krettke C., Panzica M.

Positive culture during reimplantation negatively affects the outcome in two-stage exchange arthroplasty
Winkler T. (Berlin), Müller M., Garbe Anja, Perka C., Trampuz A., Akgün D.
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<tr>
<th>Session</th>
<th>Time</th>
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<td>194</td>
<td>11:00-12:30</td>
<td>New York 3</td>
<td><strong>Future developments and role of Reamer Irrigator Aspirator (RIA) concept</strong></td>
<td>Müller C. (Karlsruhe), Norris B. (Tulsa), Pape H. (Zürich)</td>
<td>Schmolders J. (Bonn), Koob S., Pennekamp P., Wirtz D., Placzek R., Strauß A.</td>
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<td>2009</td>
<td>11:00-12:30</td>
<td>New York 3</td>
<td><strong>Current indications and complications for the RIA System</strong></td>
<td>Müller C. (Karlsruhe)</td>
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<td>2100</td>
<td>11:00-12:30</td>
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<td><strong>Metabolic alterations of RIA</strong></td>
<td>Poeze M. (Maastricht)</td>
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<td>2101</td>
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<td>New York 3</td>
<td><strong>How I use RIA in my daily practice: Bone defects and nonunions</strong></td>
<td>Norris B. (Tulsa)</td>
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<td><strong>Dead or alive - what`s in this graft material?</strong></td>
<td>Hak D. (Denver)</td>
<td>Schmolders J. (Bonn), Koob S., Pennekamp P., Wirtz D., Placzek R., Strauß A.</td>
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<td><strong>Experimental background to combine RIA with other stimulants of bone healing</strong></td>
<td>Giannoudis P. (Leeds)</td>
<td>Schmolders J. (Bonn), Koob S., Pennekamp P., Wirtz D., Placzek R., Strauß A.</td>
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<td><strong>RIA in special situations - intramedullary grafting, fusion surgery and bone infections</strong></td>
<td>Pape H. (Zürich)</td>
<td>Schmolders J. (Bonn), Koob S., Pennekamp P., Wirtz D., Placzek R., Strauß A.</td>
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<td><strong>Discussion</strong></td>
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14:30 - 16:00 New York 1 | **Varia - research**

**Chair** | Kalbitz Miriam (Ulm), Köller M. (Bochum), Sckell A. (Greifswald)

**Session** | **Comparing dGEMRIC and clinical outcome 6 years after FAI surgery with versus without microfracturing: A prospective, controlled pilot study** | Schmaranzer F. (Bern), Haefeli P., Hanke M., Werlen S., Siebenrock K., Tannast M., Büchler L.
442 Do dGEMRIC and T2 imaging correlate with histologic cartilage degeneration? An experimental ovine FAI model
6'+3' Schmaranzer F. [Bern], Arendt Larissa, Zurmühle Corinne, Lerch T., Nuss Katja, Kircher P., von Rechenberg Brigitte, Tannast M.

1050 Antibiotic prophylaxis with cefuroxime: Influence of duration on infection rate with Staphylococcus aureus in an open fracture model
6'+3' Pützler J. [Davos], Arens D., Metsemakers W., Zeiter S., Kuehl R., Richards G., Raschke M., Moriarty T.

518 Overexpression of human DKK1 via rAAV stimulates the chondrogenic differentiation processes
6'+3' Venkatesan J. [Homburg], Rey-Rico Ana, Frisch Janina, Madry H., Cucchiarini Madry Magali

351 Ex vivo evaluation of cartilage regeneration strategies: Effect of cell type and oxygen concentration in full-thickness defects
6'+3' Ehlicke F. [Würzburg], Buß Alexa, Schwab Andrea, Walles Heike

1135 Autologous matrix-induced chondrogenesis combined with autologous adipose stem cells (LIPO-AMIC): Surgical technique and an eighteen pilot patients report
6'+3' Sciarretta F. [Rome]

824 MR imaging after cartilage reconstruction with autologous matrix induced chondrogenesis (AMIC)
6'+3' Walther M. [München], Gottschalk O., Baumbach S., Röser Anke

415 Electrical stimulation improves bone tissue engineering treatment
6'+3' Leppik Liudmila [Frankfurt], Han Z., Pindur L., Slavici A., Henrich D., Barker J.

3592 Local fixation of antibiotics by fibrin spraying after debridement of musculo-skeletal infections
6'+3' Janko Maren [Frankfurt], Frank J., Nau C., Marzi I.

14:30 - 16:00 New York 3 International: in English

IN39 Controversies in the treatment of challenging ankle injuries
In cooperation with OTA

Chair Gebhardt F. [Ulm], Ricci W. [New York]

2017 Ankle fracture management: When and how do timing and type of fixation matter?
15' Giannoudis P. [Leeds]

2085 How and when to fix the Volkmann Triangle
15' Verhofstad M. [Rotterdam]
2018
Syndesmosis injuries: When is surgery needed and what is the best fixation method?
15’
Ricci W. (New York)

2019
Fracture fixation in osteoporotic bone: Technique considerations
15’
Gebhard F. (Ulm)

2020
Ankle fractures in diabetic patients: Treatment protocols for optimal outcomes
15’
Hak D. (Denver)

15’ Discussion

16:30 - 18:00 New York 1 International: in English

IN28 Varia - spine and lower extremity

Chair Arand M. (Ludwigsburg), Bock-Lamberlin P. (Hamburg), Rueger J. (Hamburg)

91 Intraoperative evaluation of neural decompression via MIS-TLIF and MIS-ELIF using a novel intraoperative CT. A retrospective single center study of 34 patients

82 90-day readmission after lumbar spinal fusion surgery in New York State between 2005 and 2014. A 10-year analysis of a statewide cohort
6’+3’ Lang G. (New York), Baaj A., Hsu Wei-Chun, Avila M., Mao Jialin, Sedrakyan A.

1412 Contemporary dual mobility cup: A regional and private register - methodology and results
6’+3’ Prudhon J. (Grenoble), Ferreira A., Caton J., Verdier R.

151 Is acetabular labrum size and tear pattern associated with femoral retrotorsion or increased femoral torsion in patients with FAI?
6’+3’ Todorski Inga (Bern), Lerch T., Schmaranzer F., Siebenrock K., Steppacher S., Tannast M.

428 The Femoro-Epiphyseal Acetabular Roof (FEAR) index: A new measurement associated with instability in borderline hip dysplasia?
6’+3’ Weidner J. (Luzern 16), Wyatt M., Beck M.

797 Labral augmentation with ligamentum capitis femoris - presentation of a new technique and preliminary results
6’+3’ Weidner J. (Luzern 16), Beck M.

472 Healed achilles tendon ruptures show decreased elastic properties in shear wave elastography
6’+3’ Frankewycz B. (Regensburg), Weber J., Platz-Batista-da-Silva Natascha, Penz Andrea, Freimoser F., Jung E., Docheva Denitsa, Pfeifer C.
1210 Multiligament knee injuries in high energy traumatism
6’+3’ Godino M. (Marbella), Pascual F., Vides M., Guerado E.

972 The effect of swimming as a conservative measure for early stage ONFH
6’+3’ Dong X. (Wuhan), Qi L.

16:30 - 18:00 New York 3 International: in English

IN40 The challenge of complex elbow fracture
In cooperation with AOTrauma

Chair Bonnaire F. (Dresden), Lambert S. (Stanmore)

3019 Introduction
5’ Bonnaire F. (Dresden)

3020 Distal humerus fractures: AO advices and my technique
12’+4’ Nijs S. (Leuven)

3021 The importance of ligamentous co-injuries in Monteggia-like lesions
12’+4’ Lambert S. (Stanmore)

3022 My technique and AO suggestions in the treatment of proximal ulna fractures
12’+4’ Bonnaire F. (Dresden)

3023 Challenges of osteosynthesis and reconstruction and alternative treatments
12’+4’ Müller L. (Köln)

3024 Reoperations after elbow fractures: Why and how?
12’+4’ Jäger M. (Freiburg)

3025 Summary
5’ Bonnaire F. (Dresden), Lambert S. (Stanmore)

CME CREDITS An application has been made to the UEMS EACCME® for CME accreditation of this event.

Abstracts for scientific lectures and posters are available from October 2017 at www.egms.en.

Download the free multi-event-app by SynopticCon at the App Store or Google Play!
The poster area in Hall 6.2 may be visited during the opening hours with a valid congress ticket. The individual contributions incl. abstracts are available in the web program (www.dkou.de).

**Poster Exhibition**

All posters will be presented classically at poster walls, ordered by topics.

**Set-up:**
- Tuesday 24.10.2017 09:00 - 12:30 h

**Opening hours:**
- Tuesday 24.10.2017 12:30 - 18:00 h
- Wednesday 25.10.2017 09:00 - 18:00 h
- Thursday 26.10.2017 09:00 - 18:00 h
- Friday 27.10.2017 09:00 - 14:30 h

**Dismantling:**
- Friday 27.10.2017 14:30 - 18:00 h

**Poster Presentation**

The poster presentation takes place on Wednesday, 25.10.2017 during the times stated below. After a short oral presentation, the posters will be discussed and evaluated by the award commission.

**Poster Topics**

- P011 Best clinical papers (poster awards) 09:00 h
- P012 Best experimental papers (poster awards) 11:00 h
- P013 Arthroplasty and revision arthroplasty I 14:30 h
- P014 Arthroplasty and revision arthroplasty II 16:30 h
- P015 Fractures and joint injuries I 09:00 h
- P016 Fractures and joint injuries II 11:00 h
- P017 Pediatric orthopedics and traumatology 14:30 h
- P018 Polytrauma, organ injury and emergencies 16:30 h
- P019 Traumatology and orthopedics in the elderly 09:00 h
- P020 Treatment of the spine 11:00 h
- P021 Hand and foot surgery 14:30 h
- P022 Regenerative and conservative therapy 16:30 h
- P023 Septic surgery 09:00 h
- P024 Tumor surgery 11:00 h
- P025 Biomaterials and implants 14:30 h
- P026 Biomechanics and movement analysis 16:30 h
- P027 Fracture healing and bone metabolism 09:00 h
- P028 Musculoskeletal regeneration 11:00 h
- P029 Arthritis 14:30 h
- P030 Annual ARCO meeting 2017 16:30 h

**Poster Reception**

The Prizes for 3 clinical and experimental contributions will be awarded on Wednesday, 25.10.2017, 18:15 – 19:00 h during the poster reception with beer & pretzels. A member of the respective working group needs to be present. Accompanying persons with a valid entrance ticket are welcome to join the event. Afterwards, there will be time for a an informal exchange at the poster walls!
For admission to the satellite program an entrance ticket is sufficient. Available contents may be found in the web program (www.dkou.de).

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Don’t miss the Orthopaedic Video Theater with access to over 600 high-quality peer-reviewed technique videos submitted from world-renowned experts (NEW - Hall 4.2)!
Events

**Opening Reception**
“Snacks & drinks”
- Schedule: Tuesday, 24.10.2017, 20:30 - 22:30 h
- Location: Messe Berlin, Foyer South Entrance
- Admission: Valid congress or entrance ticket required
- Registration: www.dkou.de

**Poster Reception**
“Beer & pretzels”
- Schedule: Wednesday, 25.10.2017, 18:15 - 19:00 h
- Location: Messe Berlin, Hall 6.2
- Admission: Valid congress or entrance ticket required
- Registration: www.dkou.de

**Rookie Night**
“A night for the next generation”
- Schedule: Wednesday, 25.10.2017, from 21:00 h
- Location: Puro Sky Lounge Berlin (Europa Center), Tauentzienstr. 9-12, 10789 Berlin
- Public transport: S5, S7, S75 Zoologischer Garten U1/U2 Wittenbergplatz, U9 Zoologischer Garten Bus X9, X34, M45, M49, 100, 200 Zoologischer Garten, Bus N1, N10, N26 (nightliners)
- Admission: Free, registration required!
- Registration: www.dkou.de

**Congress Party**
“In the land of milk and honey”
- Schedule: Thursday, 26.10.2017, from 20:30 h
- Location: KaDeWe, Tauentzienstr. 21-24, 10789 Berlin
- Public transport: U1, U2, U3 Wittenbergplatz S5, S7, S75 Zoologischer Garten Bus M19, M29, M46; Bus N1, N2, N3 (nightliners)
- Costs per person: EUR 80.00 (medical specialists), EUR 60.00 (resident in training, students and medical assistance staff, on presentation of a confirmation)
- Registration: www.dkou.de

**Farewell**
“Cheese & wine”
- Schedule: Friday, 27.10.2017, 18:00 - 18:30 h
- Location: Messe Berlin, Festsaal
- Admission: Valid congress or entrance ticket required
- Registration: www.dkou.de
The technical exhibition is open from 08:30 - 18:30 h on all four congress days (Tuesday - Friday, 24 - 27 October 2017). A congress or entrance ticket is required for admittance. Registration can be carried out online before the congress (www.dkou.de) or on-site in Berlin.
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<td><strong>Medical assistance¹</strong>&lt;br&gt;(orthopaedic technicians, physiotherapists, nurses, rescue service providers)</td>
<td><strong>Medical assistance¹</strong>&lt;br&gt;(orthopaedic technicians, physiotherapists, nurses, rescue service providers)</td>
</tr>
<tr>
<td><strong>Students¹</strong>&lt;br&gt;(in the congress program)</td>
<td><strong>Reduced persons¹</strong>&lt;br&gt;(unemployed, parental leave, retired, handicapped, part-time employees, residents in training)</td>
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</tr>
<tr>
<td><strong>Physicians/Medical specialists,</strong>&lt;br&gt;other professionals&lt;br&gt;(in full-time)</td>
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</tr>
<tr>
<td><strong>Congress tickets</strong>&lt;br&gt;Congress program, industrial exhibition, satellite program</td>
<td><strong>Seminar tickets³</strong>&lt;br&gt;in combination with congress ticket&lt;br&gt;SE11 a-d EUR 120&lt;br&gt;SE12 a-c EUR 90&lt;br&gt;SE13 a+b EUR 60&lt;br&gt;SE14 EUR 60&lt;br&gt;SE15 a-d EUR 120</td>
<td><strong>Entrance tickets⁴</strong>&lt;br&gt;Industrial exhibition, satellite program&lt;br&gt;per day EUR 20</td>
</tr>
<tr>
<td><strong>Day ticket (per day)</strong>&lt;br&gt;free</td>
<td><strong>Day/Congress ticket:</strong>&lt;br&gt;Members² EUR 30/70&lt;br&gt;Non-memb. EUR 60/100</td>
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<tr>
<td><strong>Day/Congress ticket:</strong>&lt;br&gt;Members² EUR 35/70&lt;br&gt;Non-memb. EUR 50/100</td>
<td><strong>Day/Congress ticket:</strong>&lt;br&gt;Members² EUR 60/120&lt;br&gt;Non-memb. EUR 75/150</td>
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<td><strong>Day/Congress ticket:</strong>&lt;br&gt;Members² EUR 75/150&lt;br&gt;Non-memb. EUR 100/200</td>
</tr>
</tbody>
</table>

¹ granted at official confirmation (certificate, enrolment)<br>² in BVOU, DG00C, DGOU, DGU<br>³ with guaranteed seating and certification<br>⁴ Including official ceremonies, excluding certification
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- 72 h EUR 27.90

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- Parking area P18, Jafféstraße (to be paid)

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Book your room directly in one of the surrounding hotels at special rates!
- deadline 25.09.2017
- keyword “Intercongress DKOU”
The venue is centrally located in the city of Berlin and has its own suburban train station. An urban motorway connects it with the two airports. Parking spaces are limited, please use public transport!
Messe Berlin, South Entrance
Hildegard Coronini
Jafféstraße, 14055 Berlin, Germany
☎ 030 3038-3067, ☎ 030 3038-3032
coronini@messe-berlin.de, www.messe-berlin.de

Wardrobe opening hours
- Tuesday 24.10.2017 08:00 - 23:00 h
- Wednesday 25.10.2017 08:00 - 20:00 h
- Thursday 26.10.2017 08:00 - 21:00 h
- Friday 27.10.2017 08:00 - 19:30 h

- South Entrance
- Opening reception
- Entrance foyer
- Congress & satellite program
  - Halls 1.2, 3.2, 6.2, 6.3, 7.1, 7.2, 7.3
- Industrial exhibition
  - Halls 2.2, 4.2
- Corridors
- Press center
  - Hall 6.3

1. Congress office
   Entrance foyer
2. Wardrobe, lost & found
   Entrance foyer
3. Info market
   Entrance foyer
4. Media check
   Entrance foyer
5. KIDS care
   Courtyard Hall 2.1
6. Students’ day
   Hall 7.1 (Paris 1)

- Cafés
  - Entrance foyer, Hall 2.2
- Restaurants
  - Halls 2.2, 4.2
- Charging stations & working spaces, Hall 4.2
- BVÖU, DG00C, DGÖU, DGU
  - Hall 2.2
- BrandNew & Orthopaedic Video Theater, Hall 4.2
- Relax lounge
  - Hall 4.2
- Meeting point & picture spot
  - Foyer Hall 2.2
- Cashpoint
  - Foyer Hall 2.2
- Information
  - Halls 2.2, 4.2, 6.2, 7.2
- Smoking areas
- South entrance, hall passages
- Medical service
  - Hall 4.2
- Prayer room
  - Outside Hall 6.2

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95.7%
Tibial component coronal alignment within 2° of neutral vs. 68.1% using EM guided TKAs.¹

95.0%
Tibial component posterior slope within 2° of target slope vs. 72.1% using EM guided TKAs.¹

92.5%
Overall limb alignment within 3° of neutral vs. 86.3% for CAS navigated TKAs.²

94.9%
Femoral component coronal alignment within 2° of neutral vs. 92.5% for CAS navigated TKAs.²