



2015
COMBINED MEETING
ISOLS & MSTS
October 6-10
ORLANDO, FLORIDA
JW Marriott Orlando Grande Lakes



PROGRAM



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Deadline is Tuesday, December 8, 2015, 5pm CST



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WELCOME



It is our pleasure to welcome you to Orlando, Florida and the combined meeting of the International Society of Limb Salvage (ISOLS) and the Musculoskeletal Tumor Society (MSTS). It has been thirty years since ISOLS was in Orlando and six years since the last ISOLS-MSTS combined meeting in Boston.

We have planned a scientific session that should be informative and interesting. We are confident there will be outstanding introductory lectures, excellent podium presentations, and lively discussions. Don't miss the ISOLS presidential presentation on Friday morning, presented by Pietro Ruggieri, MD, PhD and the MSTS presidential speaker, Ching C. Lau, MD, PhD, on Saturday morning. These both should be excellent.

On Friday, there is an all-day Allied Health Symposium that features educational topics, including patient and family discussions. Please interact with our sponsors and check out their exhibits. There are many new and intriguing technologies on display.

The social program is robust and promises to be memorable. On Wednesday evening there is a "Back Yard Florida Party" complete with reptiles, games, dinner, beverages, and a great band. Get up early Thursday morning for a "Fun Run 5K" around the golf course. Thursday afternoon is free time to interact, explore, shop, enjoy the spa, or play in our golf tournament. On Friday evening we have an amazing event planned at the House of Blues. Come for dinner, a Cirque du Soleil show, and the House of Blues band. The attire is casual and there should be plenty of entertainment and dancing.

Thanks to all who have helped bring together this group for a great meeting.



Reinhard Windhager, MD
President, ISOLS



Rick Terek, MD
President, MSTS



Mark T. Scarborough, MD
2015 Program Chair, ISOLS



C. Parker Gibbs Jr., MD
2015 Program Chair, MSTS



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www.isols-msts.org • #ISOLSMSTS



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Patrick P. Lin, MD
Howard G. Rosenthal, MD, FACS
Felasfa M. Wodajo, MD
Miguel Ayerza, MD

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Hue H. Luu, MD
Joel Mayerson, MD
Benjamin J. Miller, MD, MS
Kurt Weiss, MD
Nicola Fabbri, MD
John H. Healey, MD, FACS

ISOLS Program Chair
Mark T. Scarborough, MD

Phillipp T. Funovics, MD
Soo-Yong Lee, MD
G. Douglas Letson, MD
Pietro Ruggieri, MD, PhD
Hiroyuki Tsuchiya
Reinhard Windhager, MD
Edmund Y.S. Chao, PhD
Peter F.M. Choong, MD, FRACS

Wei Guo, MD, PhD
Han-Soo Kim, MD, PhD
Toshifumi Ozaki, MD
Francis J. Hornicek, MD, PhD
Marco Manfrini, MD
Xiaohui Niu, MD
Ajay Puri, MD
Peter Scheinmann

EDUCATIONAL GOALS & OBJECTIVE

At the conclusion of this CME activity, the attendees should be able to:

1. Improve their understanding of quality of life and outcomes measures in musculoskeletal oncology surgery.
2. Report progress in application of computer navigation to bone sarcoma resection.
3. Identify new approaches for targeted and adjuvant therapies to treat patients with primary or metastatic bone or soft tissue tumors.
4. Report new options for limb salvage surgery for patients with malignant bone and soft tissue tumors and metastatic bone disease.
5. Minimize and better manage complications that occur after limb salvage surgery.
6. Report recent progress in basic and translational research as it relates to the diagnosis, etiology, and/or prognosis of the orthopaedic oncology patient.
7. Update knowledge of imaging and prognostic factors in sarcoma and metastatic bone disease.

MISSIONS & VISION



VISION: The Musculoskeletal Tumor Society will be a recognized authority on all aspects of orthopaedic oncology, an influential participant in policy-making for orthopaedic oncology services, and responsive to the needs of orthopaedic oncologists and their patients.

MISSION: The Musculoskeletal Tumor Society will advance the science of orthopaedic oncology and promote high standards of patient care through excellence in education and research.

OBJECTIVES

- Membership:** Serve and engage current and prospective orthopaedic oncologists.
- Education:** Serve as the premier provider of education in musculoskeletal oncology.
- Research:** Encourage and support meaningful, relevant, and timely research for the advancement of knowledge in musculoskeletal oncology.
- Organizational Excellence:** Become and maintain a healthy and viable Society.



MISSION: The purpose of the Association is to promote research, education and clinical practice related to musculoskeletal tumors and its foremost purpose is to improve patient care related to limb salvage interventions.

It also serves as a forum for intellectual exchange among physicians, engineers, scientists and other persons interested in limb salvage, promotes advances in the field of limb salvage and ongoing education of persons engaged in the field of limb salvage.

ACCREDITATION

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the American Academy of Orthopaedic Surgeons (AAOS) and the Musculoskeletal Tumor Society (MSTS). The AAOS is accredited by the ACCME to provide continuing medical education for physicians.

DISCLAIMER

The material presented at the Annual Meeting has been made available by the MSTS for educational purposes only. This material is not intended to represent the only, nor necessarily the best, methods or procedures appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement or opinion of the faculty, which may be helpful to others who face similar situations.

The Musculoskeletal Tumor Society disclaims any and all liability for injury or other damages resulting to any individual attending a course and for all claims, which may arise out of the use of the techniques, demonstrated there in by such individuals, whether these claims shall be asserted by a physician or any other person.

DISCLOSURE

Each faculty member in the combined meeting has been asked to disclose if he or she has received something of value from a commercial company or institution, which relates directly or indirectly to the subject of their presentation. The AAOS has identified the options to disclose as follows:

- n = Respondent answered 'No' to all items indicating no conflicts;
- 1 = Royalties;
- 2 = Speakers Bureau (Speakers Bureau or Honorarium);
- 3 = Consultancies;
- 4 = Other Financial or Material Support;
- 5 = Stock or Stock Options;
- 6 = Research Support (Research or Institutional);
- 7 = Departmental or Institutional Support (Research or Institutional);
- 8 = Financial Support from Publishers (Financial or Material);
- 9 = Department Research or Institutional Support from Publishers;

An indication of the participant's disclosure appears after his or her name as well as the commercial company or institution that provided the support.

The AAOS and the MSTS do not view the existence of these disclosed interests or commitments as necessarily implying bias or decreasing the value of the author's participation in the course.

PRESENTER INFORMATION

The Speaker Ready Room is located in the Coquina Office and will be staffed with a Technician (During Conference Hours) from Tuesday the 6th through Saturday the 10th. Please have the final version of your podium presentation uploaded two hours before your session begins. All moderators and presenters, for their assigned session, need to be present behind the stage before the session begins.

NOTE: Minors are prohibited from being present during educational sessions and within the exhibit hall.

GENERAL INFORMATION

MEETING

Date: **OCTOBER 6–10, 2015**

Venue: JW Marriott Orlando Grande Lakes
4040 Central Florida Parkway | Orlando, FL 32837
407-206-2301

Ritz Carlton Orlando Grande Lakes
4012 Central Florida Parkway | Orlando, FL 32837
1-800-266-9432

Website: <http://isols-msts.org/>

Program Chairs: C. Parker Gibbs Jr., MD; and Mark T. Scarborough, MD

YOUR BADGE IS YOUR TICKET
to the all meeting sessions and social events.
Accompanying persons must also have a badge to participate.

REGISTRATION

The Registration Desk is located in the **Mediterranean Foyer**.

Registration Fees:

Early Rate expired **August 17, 2015**

| | |
|---|--------|
| MSTS or ISOLS Member: | \$1050 |
| Non-Member: | \$1400 |
| Resident/Fellow RN/PA/ Research/Allied | |
| Healthcare Professional: | \$450 |
| Guest: | \$300 |

CME

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and the Musculoskeletal Tumor Society. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of **21.75 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ABSTRACTS

You may view all of the meeting abstracts and speaker disclosures online. Please visit www.msts.org/education_meetings/annualmeeting to view the electronic Final Program.

EVALUATION FORMS

Please return to the Registration Desk or complete online.

CERTIFICATE OF ATTENDANCE

Certificates will be distributed at the Registration Desk to all registered attendees onsite at the 2015 Combined Meeting.

SCIENTIFIC POSTER EXHIBITION

Coquina Ballroom South
Wednesday, October 7th, 7:00 am–5:00 pm thru Friday, October 9th, 7:00 am–5:00 pm

PRESIDENTIAL GUEST SPEAKERS

MSTS PRESIDENTIAL GUEST SPEAKER

CHING C. LAU, MD, PhD



Ching C. Lau, M.D., Ph.D. is an Associate Professor of Pediatrics at Baylor College of Medicine (BCM), and inaugural Co-Leader of the Pediatrics Program of the Dan L. Duncan Cancer Center at BCM. Dr. Lau graduated from Rice University with a B.A. in Chemistry and subsequently received his Ph.D. in Pharmacology and M.D. from Harvard Medical School. He was a post-doctoral fellow in Cancer Genetics at Dana-Farber Cancer Center. He completed his Pediatrics Residency and Pediatric Hematology-Oncology Fellowship at Texas Children's Hospital, Baylor College of Medicine. He has been the Associate Director of the Pediatric Neuro-oncology Program and the founder of the Cancer Genomics Program at the Texas Children's Cancer Center. He is a member of the Bioinformatics Steering Committee and Biopathology and Translational Research Committee of the Children's Oncology Group. He is also a member of the Steering Committee of the Gulf Coast Consortium in Bioinformatics as well as the Executive Committee of the Structural and Computational Biology and Molecular Biophysics (SCBMB) Program, Baylor College of Medicine. His research interests include the molecular biology of pediatric brain and bone tumors and the clinical applications of genomic technologies. He is a strong advocate for team science research in academia and is experienced in leading NCI-funded multi-disciplinary teams of research including being the principal investigator of the Director's Challenge Project on osteosarcoma and the COG project on genome-based prognostic markers of ependymoma as well as co-principal investigator of the project on the molecular taxonomy of medulloblastoma and a member of the Steering Committee of the NCI's Strategic Partnering to Evaluate Cancer Signatures (SPECs) Program and the NCI Therapeutically Applicable Research to Generate Effective Treatments (TARGET) Consortium. In addition, he is also a key investigator in the Stand Up to Cancer Pediatric Immunogenomics Dream Team. He was also the P.I. of the Genotyping Core for the Gliogene Consortium. Dr. Lau has published more than 110 papers in prestigious peer-reviewed journals on cancer genetics and genomics and is a highly sought after speaker who has given more than 100 invited lectures in international and national meetings.

SATURDAY OCTOBER 10, 2015 • Coquina Hall North • 9:15 am–10:15 am
Can Chemoresistance in Osteosarcoma be Overcome by Deciphering the Complexities of its Genome?



**ISOLS PRESIDENTIAL GUEST SPEAKER
PIETRO RUGGIERI, MD, PhD**

Pietro Ruggieri, MD, PhD was born in Taranto Italy in 1958. He graduated in Medicine at University of Bologna in 1982, completed his residency and was certified Board of Orthopedics in 1996 at University of Bologna, Istituto Rizzoli 1987 and obtained his PhD in oncology at University of Bologna in 1989. He became Researcher at University of Bologna, Rizzoli Institute in the Department of Orthopedics and in 2005 Professor of Orthopedics. He was a pupil of Prof. Mario Campanacci since 1982 to 1999 and then worked with Mario Mercuri until 2011.

During his education, he was a fellow at University of Florida, Gainesville under the direction of Dr. Enneking and Dr. Springfield in 1987 and was a fellow of Dr. Frank Sim at Mayo clinic in 1991. He is the author of more than 800 Scientific papers or National or International Journals, over 290 of these on PubMed, with an Impact factor over 500, a citation H Index of 39 and a i10 Index of 114.

He has been a speaker or lecturer at more than 500 International congresses. He is a member of several Orthopedic and Oncology societies. He has been President of the ISOLS, is Board Member of the EMSOS, Codirector of the subspecialty of tumors for the SICOT and Scientific Coordinator for the EFORT. He received several awards, including awards from EMSOS, EFORT and N.C.I. He was Erwin Morscher honorary lecture at EFORT in London in 2014.

His main fields of research are musculoskeletal oncology, reconstructive surgery and prostheses in musculoskeletal oncology. Since May 2011 to November 2012 he has been Director of the Department of Orthopedic Oncology at Rizzoli.

Since November 2012 he is Head of Prosthetic reconstructive surgery in Musculoskeletal Oncology, University of Bologna Istituto Rizzoli. He has been appointed Chairman of the Department of Orthopedics and Orthopedic Oncology at the University of Padova, since October 1st 2015.

FRIDAY OCTOBER 9, 2015 • Coquina Hall North • 8:00 am–9:00 am
Pelvic Tumor Surgery: The Rizzoli Institute Experience



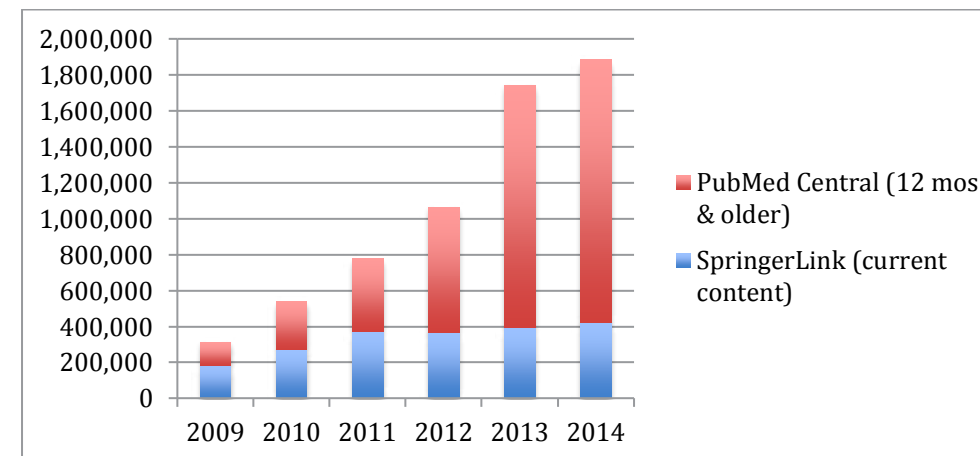
**PARTICIPATE IN THE 2015 MSTs/ISOLS
PROCEEDINGS SYMPOSIUM IN CORR®**

Clinical Orthopaedics and Related Research® is the official journal of the Musculoskeletal Tumor Society and the International Society of Limb Salvage, and we are proud to once again publish this year's MSTs/ISOLS Meeting Proceedings. In the past 3 years we have made many changes to the Journal to make it more author-friendly. These efforts include creating a clinical research article tool to help authors present their work clearly and with less effort, modifying our in-office manuscript flow to reduce our average time from submission to final decision for proceedings symposia manuscripts to 104 days in 2015, and instituting new editorial approaches that have all but eliminated second manuscript revisions.

We hope you will submit your research for review and possible inclusion in the MSTs/ISOLS Proceedings of the issue of CORR®. As always, submission does not guarantee publication; all original research published in our Journal undergoes peer review. To maximize the likelihood that all important information about your study will be available to reviewers, please use one of CORR's article templates, which are available at www.clinorthop.org.

Publishing your work in CORR® will ensure that researchers around the world can see it: more than 11,000 institutions worldwide receive CORR® every month, and its articles were downloaded more than 1.8 million times in 2014.

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Papers being considered for MSTs/ISOLS Awards will be converted automatically to CORR® submissions; you need do nothing to make this happen. If your paper is not being considered for an award and you would like to submit it for consideration for the Proceedings Symposium, please do so before November 10, 2015 to www.editorialmanager.com/corr.



SCHEDULE-AT-A-GLANCE

LOCATIONS

| | |
|--|--|
| Scientific Sessions: | <i>Coquina Hall North</i> |
| Breakfast, Refreshments Breaks, Luncheons: | <i>Coquina Hall South, Mediterranean Salon 5</i> |
| Poster Sessions & Exhibition: | <i>Coquina Hall South</i> |

TUESDAY, OCTOBER 6

| | |
|-----------------|---|
| 2:00 pm–5:30 pm | Registration <i>Mediterranean Foyer</i> |
| 2:00 pm–5:00 pm | Poster/Exhibitor Set-up <i>Coquina Hall South</i> |
| 3:00 pm–5:00 pm | ISOLS Board Meeting <i>Marbella 1-2</i> |

WEDNESDAY, OCTOBER 7

| | |
|------------------|--|
| 7:00 am–8:00 am | BREAKFAST <i>Coquina Hall South, Overflow in Mediterranean Salon 5</i> |
| 7:00 am–5:00 pm | Registration <i>Mediterranean Foyer</i> |
| 7:00 am–5:00 pm | Poster/Technical Exhibits <i>Coquina Hall South</i> |
| 8:00 am–12:00 pm | Scientific Sessions <i>Coquina Hall North</i> |
| 12:00 pm–1:00 pm | LUNCH <i>Coquina Hall South, Overflow in Mediterranean Salon 5</i> |
| 1:00 pm–5:00 pm | Scientific Sessions <i>Coquina Hall North</i> |
| 6:00 pm–9:00 pm | Welcome Reception <i>Fairways Lawn, Ritz Carlton Golf Club</i> |

THURSDAY, OCTOBER 8

| | |
|------------------|--|
| 7:00 am–8:00 am | BREAKFAST <i>Coquina Hall South, Overflow in Mediterranean Salon 5</i> |
| 6:30 am–7:30 am | Fun Run 5K <i>Primo Garden</i> |
| 7:00 am–12:30 pm | Registration <i>Mediterranean Foyer</i> |
| 7:00 am–12:30 pm | Poster/Technical Exhibits <i>Coquina Hall South</i> |
| 8:00 am–12:30 pm | Scientific Sessions <i>Coquina Hall North</i> |
| 1:00 pm–5:00 pm | MSTS Executive Committee Meeting <i>Cordova 4</i> |
| 1:00 pm–6:00 pm | Golf Tournament <i>Ritz Carlton Golf Club</i> |
| 1:00 pm–10:00 pm | Free Time to Explore Orlando |

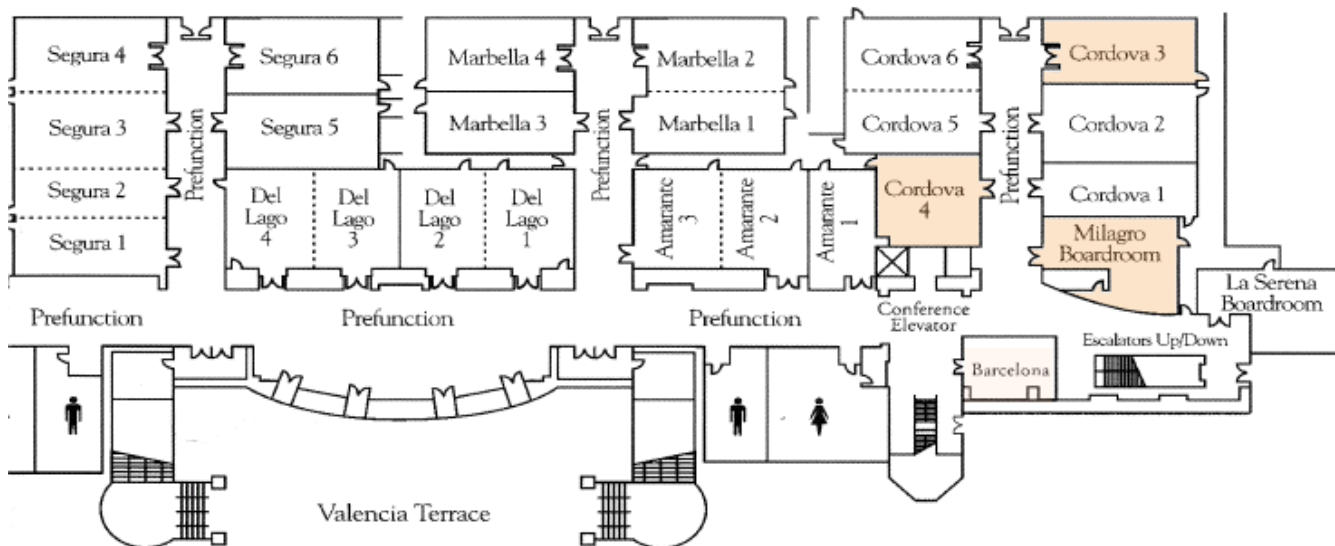
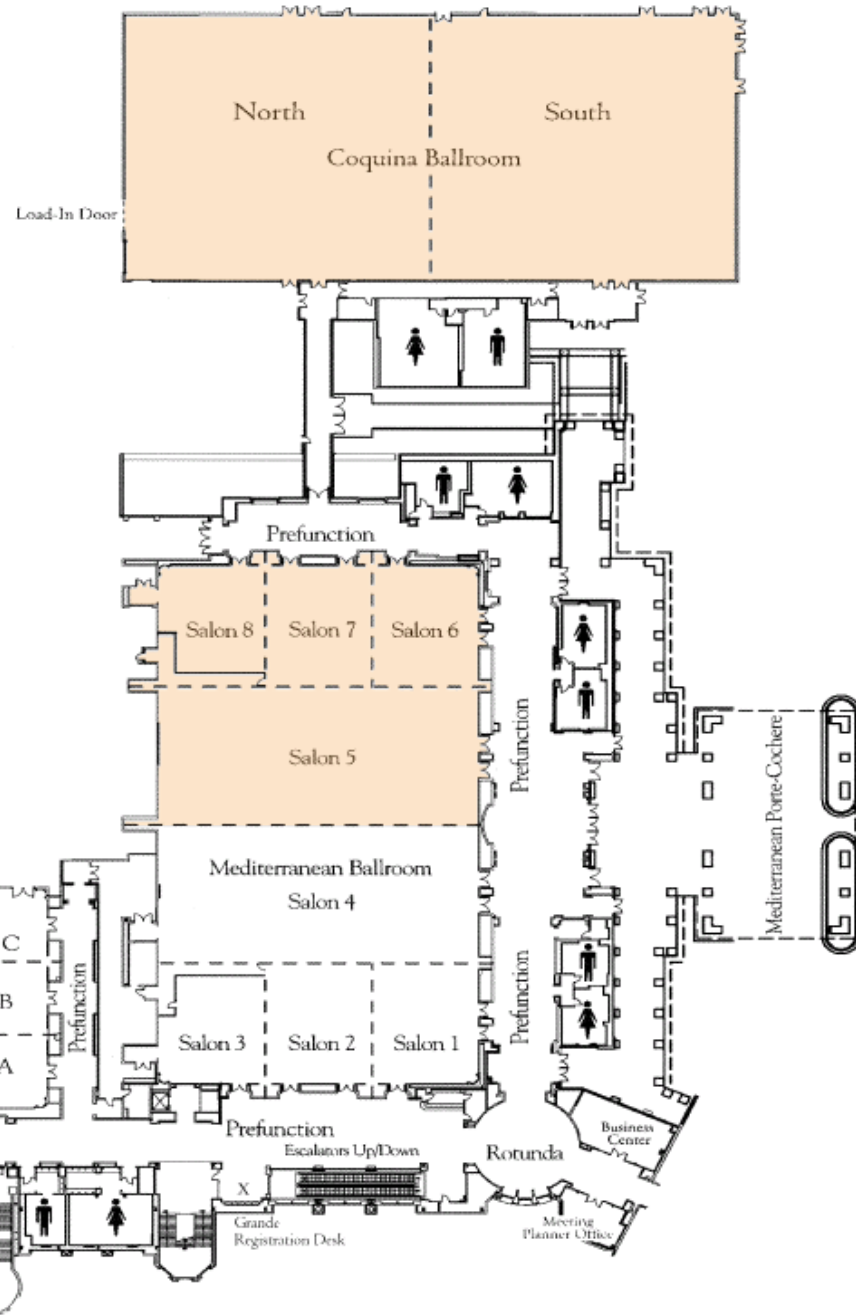
SCHEDULE-AT-A-GLANCE

FRIDAY, OCTOBER 9

| | |
|------------------|--|
| 7:00 am–8:00 am | BREAKFAST <i>Coquina Hall South, Overflow in Mediterranean Salon 5</i> |
| 6:45 am–8:00 am | MSTS Business Meeting <i>Coquina North</i> |
| 7:00 am–5:00 pm | Registration/Hospitality Desk <i>Mediterranean Foyer</i> |
| 7:00 am–5:00 pm | Poster/Technical Exhibits <i>Coquina Hall South</i> |
| 8:00 am–12:00 pm | Scientific Sessions <i>Coquina Hall North</i> |
| 8:00 am–5:00 pm | PA/ARNP/Allied Health Session <i>Mediterranean Salon 7</i> |
| 12:00 pm–1:00 pm | LUNCH <i>Coquina Hall South, Overflow in Mediterranean Salon 5</i> |
| 1:00 pm–5:00 pm | Scientific Sessions <i>Coquina Hall North</i> |
| 5:00 pm–7:00 pm | MSTS Committee Meeting Meet and Greet <i>Mediterranean Salon 6</i> |
| 7:00 pm–10:00 pm | Closing Night Celebration <i>House of Blues Orlando</i> |

SATURDAY, OCTOBER 10

| | |
|-----------------|--|
| 7:00 am–8:00 am | BREAKFAST <i>Coquina South Hall & Mediterranean Salons</i> |
| 7:00 am–8:00 am | ISOLS Member Business Meeting <i>Coquina North Hall</i> |
| 7:00 am–8:00 am | MSTS Executive Committee Meeting <i>Cordova 4</i> |
| 7:00 am–1:00 pm | Registration/Hospitality Desk <i>Mediterranean Foyer</i> |
| 7:00 am–1:00 pm | Scientific Sessions <i>Coquina Hall North</i> |
| 7:00 am–1:00 pm | Technical Exhibits <i>Coquina Hall South</i> |



NURSE & ALLIED HEALTH PROFESSIONALS SYMPOSIUM • MSTs & ISOLS
OCTOBER 9, 2015
JW MARRIOTT GRANDE LAKES • ORLANDO, FL

- 6:30 am–7:45 am** Registration & Breakfast
- 8:15 am–8:30 am** Welcome, **BRANDI NUNN, RN, BSN**
- 8:30 am–9:15 am** Imaging In Musculoskeletal Oncology: What Is The Appropriate Evaluation Of This Tumor?
LUKAS NYSTROM, MD
- 9:15 am–10:15 am** Fertility Preservation: What Can And Can't Be Done, And What Should You Tell Your Patients
ALICE RHOTON, MD • RACHEL NETTLE, ARNP
- 10:15 am–10:30 am** **BREAK**
- 10:30 am–11:15 am** Providing Psychosocial Care In Oncology
JENNIFER LARSON, LCSW, ACHP-SW
- 11:15 am–12:00 pm** Sarcoma Advocacy & Support, **BRAD PALMER, PA-C**
- 12:00 pm–1:00 pm** **LUNCH**
- 1:00 pm–1:45 pm** Limb Salvage In The Skeletally Immature, **C. PARKER GIBBS JR., MD**
- 1:45 pm–2:15 pm** Why Rotationplasty: A Qualitative Study Of The Decision Making Process Of Patient's With Osteosarcoma And Their Parents
CHUNG MIN CHAN, MBBS
- 2:15 pm–3:00 pm** Rotationplasty Prosthetics, **STEVE MILLER, CPO**
- 3:00 pm–3:15 pm** **BREAK**
- 3:15 pm–4:15 pm** A Personal Touch: Patient & Family Question & Answer Session
BRANDI NUNN, RN, BSN
- 4:15 pm–5:00 pm** Round Table: Challenges Of The Orthopaedic Oncology Coordinator
BRANDI NUNN, RN, BSN
- 5:00 pm** **Closing Remarks, BRANDI NUNN, RN, BSN**

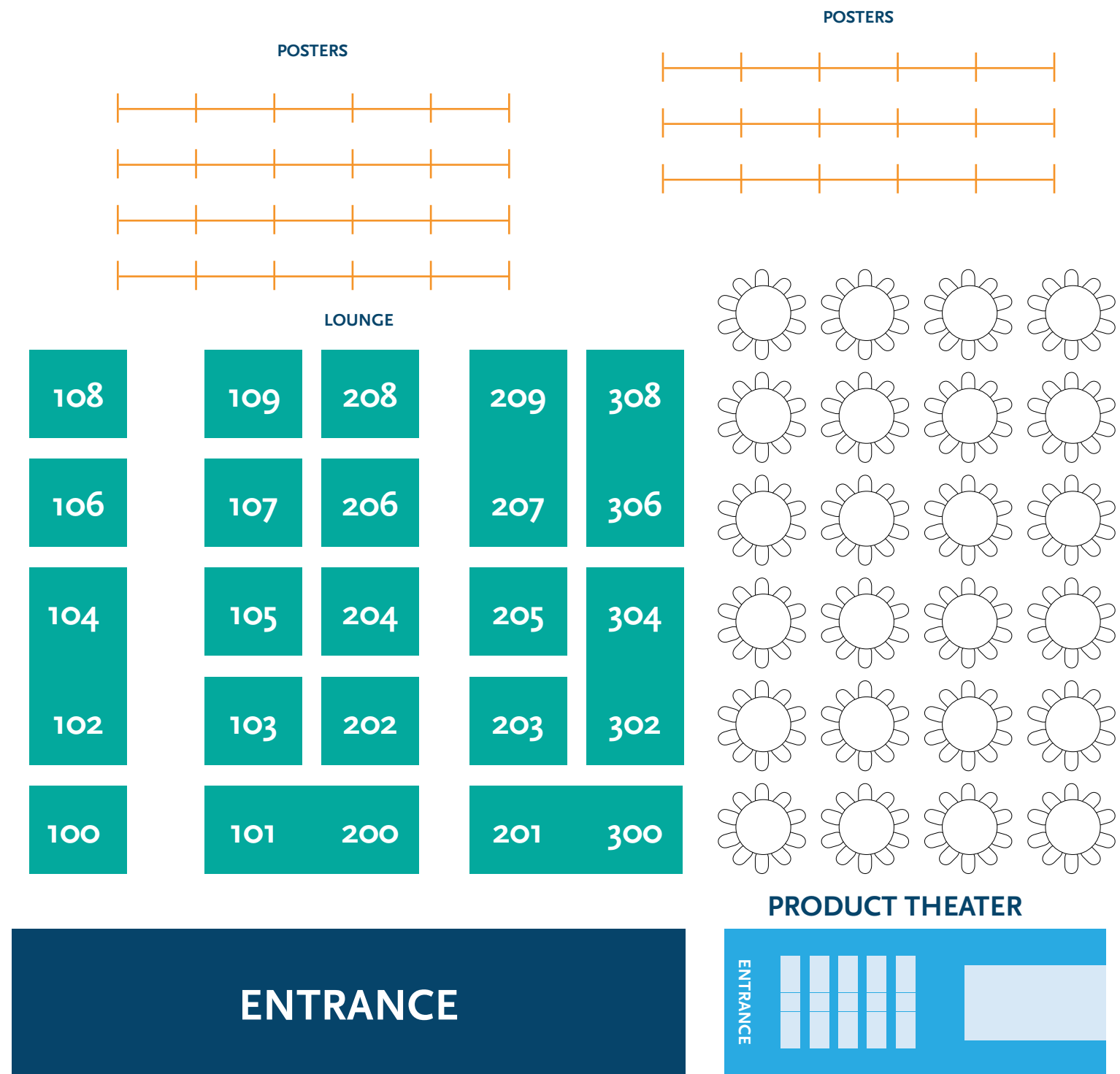
The Allied Health Program has been submitted to the Oncology Nursing Society (ONS) for approval to award contact hours. ONS is accredited as an approver of continuing nursing education by the American Nurses Credentialing Center's COA.

EXHIBITOR INFORMATION



| BOOTH | EXHIBITOR | PRODUCT THEATER | |
|--|---|--|---|
| 109 204 203 102 & 104 | 3D Side Biocomposites, Inc. CarboFix Orthopaedics Inc. DePuy Synthes | | |
| 205 | Exactech, Inc. | FRI 3:00pm First Look at a Novel Humeral Reconstruction Prosthesis | |
| 106 103 100 | Onkos Surgical Inc. DermaClose®/ Wound Care Technologies IlluminOss Medical Inc. | | |
| 302 & 304 | implantcast GmbH | FRI 10:00am MUTARS® a Modular Tumor and Revision System | |
| 108 208 202 | IMPOL Instr e Implantes Ltda Merete Medical, Inc. Musculoskeletal Transplant Foundation | | |
| 201 & 300 | Stanmore Implants | WED 2:30pm The Growing Child – What are Implant Options and Do They Work? Prof. Lee M. Jeys, MSc, FRCS – Royal Orthopaedic Hospital, Birmingham, UK | THU 10:15am Limb Salvage – How can Technology Help with Implant Fixation and Infection? Mr. Will Aston – Royal National Orthopaedic Hospital, Stanmore, UK |
| 306 & 308 206 101 & 200 207 & 209 | Stryker Orthopaedics Vector Surgical Waldemar Link GmbH & Co KG Zimmer Biomet | | |

EXHIBIT HALL MAP





SCIENTIFIC PROGRAM

WEDNESDAY, OCTOBER 7, 2015

8:00 am

WELCOME

Reinhard Windhager, MD, ISOLS President; Richard M. Terek, MD, FACS, MSTs President; C. Parker Gibbs Jr., MD, MSTs Program Chair; Mark T. Scarborough, MD, ISOLS Program Chair

8:20 am–12:00 pm

MORNING SCIENTIFIC SESSION

8:20 am–8:30 am

QUALITY INTRODUCTION • BENJAMIN J. MILLER, MD, MS

Moderators for Session 1:

Benjamin J. Miller, MD, MS; Peter B. Steadman, MBBS, FRACS; Mark T. Scarborough, MD

8:30 am–8:35 am

- 1 **Patient Reported Outcomes After Sacral Resection Based On The Nerve Roots Sacrificed**
Olivier Van Wulfften Palthe, MD; Patrick J. Boland, MD; Peter S. Rose, MD; Francis J. Hornicek, MD; Michael J. Yaszemski, MD, PhD; Franklin H. Sim, MD; John H. Healey, MD, FACS; Joseph Hasbrouck Schwab, MD
Massachusetts General Hospital

8:35 am–8:40 am

- 2 **Validation Of Eq-5D In Patients Treated For Extremity Sarcoma**
Anu Kristiina Suokas, PHD; Gareth Stephens; Lucinda Gosling; **Robert John Grimer, FRCS**
Royal Orthopaedic Hospital NHS Foundation Trust

8:40 am–8:45 am

- 3 **The Validity, Reliability, And Responsiveness Of Commonly Used Orthopedic Outcome Measures, Cancer Specific Measures, And Patient Reported Functional And Quality Of Life Measures**
Justin E. Bird, MD; Joseph Edward Niland, BS; Valerae O. Lewis, MD; Theresa Nalty, PhD, PT
The University of Texas MD Anderson Cancer Center

8:45 am–8:50 am

- 4 **Patient Reported Outcomes And Clinician Reported Outcomes Commonly Used In Orthopedics And Oncology**
Justin E. Bird, MD; Joseph Edward Niland, BS; Valerae O. Lewis, MD; Theresa Nalty, PhD, PT
The University of Texas MD Anderson Cancer Center

8:50 am–8:55 am

- 5 **Are Sports Activity Levels Reached In Long-Term Survivors Of Bone And Soft-Tissue Sarcomas After Limb Salvage Surgery Associated With Better Quality Of Life?**
Gerhard Martin Hobusch, MD; Nikolaus Wilhelm Lang; Paul Kolbitsch; Philipp Theodor Funovics, MD; Puchner Stephan, MD; Michael Hagmann; Reinhard Windhager, MD
Medical University of Vienna, Department of Orthopaedics

8:55 am–9:05 am

DISCUSSION

9:05 am–9:08 am

- 6 **The Impact Of A Communal Multidisciplinary Team On Limb Salvage In Lagos, Nigeria**
Oluwaseyi Kayode Idowu; S.O.G Giwa; F.B Abdulkareem
National Orthopaedic Hospital Lagos

9:08 am–9:11 am

- 7 **Service Redesign For Tertiary Sarcoma Referral Service**
Hazem Wafa, MD; Peter S. Young; Ashish Mahendra, MD
Glasgow Royal Infirmary, United Kingdom

9:11 am–9:14 am

- 8 **Commercial Activity Monitor For Assessing Free-Living Limb Salvage Outcome In Pediatric Lower Extremity Bone Cancer**
Ernest U. Conrad III, MD; Kenneth Robert Gundle, MD; Stephanie Punt, BS; Darin Justyn Davidson, MD
University of Washington Medical Center and Seattle Children's Hospital

9:14 am–9:17 am

- 9 **Visual Analytics For The Integration Of Health Related Quality Of Life Data Into "Point Of Contact" Clinical Care In Orthopaedic Oncology: A Pilot Study**
Justin E. Bird, MD; Theresa Nalty PhD; Jing He; Alexander Penny; Kristi K. Posey PA-C; Valerae O. Lewis, MD
The University of Texas MD Anderson Cancer Center

9:17 am–9:30 am

DISCUSSION

9:30 am–9:35 am

- 10 **The Variability In Surgical Margin Reporting In Limb Salvage Surgery For Sarcoma**
Benjamin J. Miller, MD, MS; Kevin Hoang; Yubo Gao, PhD
University of Iowa

SCIENTIFIC PROGRAM

9:35 am–9:40 am

- 11 **Long Term Outcomes And Satisfaction Of Rotationplasty Patients In The Treatment Of Lower Extremity Sarcomas**
Sean V. McGarry, MD; Courtney M. Grimsrud, MD; Sean V. McGarry, MD; Cameron Killen MD
The University of Nebraska Medical Center

9:40 am–9:45 am

- 12 **The Rate And Causes Of go-Day Unplanned Re-Admission After Soft-Tissue Sarcoma Resection.**
Robert J. Wilson, MD; Jessica R. Wilson MD; Jennifer Lynne Halpern, MD; Herbert S. Schwartz, MD; Ginger E. Holt, MD
Vanderbilt University Medical Center

9:45 am–10:00 am

DISCUSSION

10:00 am–10:30 am

BREAK *Coquina Hall South*

10:30 am–10:50 am

NAVIGATION INTRODUCTION • PROFESSOR LEE M. JEYS, MSC, FRCS
 Moderators for Session 2:
John A. Abraham, MD; Xiaohui Niu, MD

10:50 am–10:55 am

- 13 **Augmented-Reality Assistance In Bone Tumor Surgery**
Hwan Seong Cho; Park Yeong Kyoony; Han Ilkyu; Kim Han-Soo
Seoul National University Bundang Hospital

10:55 am–11:00 am

- 14 **Enhancing Precision And Accuracy In Bone Tumour Treatment; An Experimental Comparison Of Freehand, Computer Assistance (Cas) And A Novel Universal Cas Saw Guide.**
Paul C. Jutte, MD, PhD; Jasper G Gerbers MD; Nico Verdonschot, MSc;
University of Groningen, University Medical Center Groningen, The Netherlands

11:00 am–11:05 am

- 15 **3D Surgical Planning And Patient Specific Instruments (Psis) Can Achieve Good Accuracy For Complex Bone Resections In Bone Sarcoma Patients.**
Kwok Chuen Wong, FRCS (ORTHO); Kwan Yik Sze; Shekhar Madhukar Kumta
Orthopaedic Oncology, Prince of Wales Hospital, Hong Kong

11:05 am–11:10 am

- 16 **Standardizing Bony Sarcoma Margin Documentation With Intraoperative Computer-Aided Navigation**
Ernest U. Conrad III, MD; Stephanie Punt, BS; Jedediah K. White, BS; Viviana Bompadre, PhD; Alissa Little RN
Seattle Children's Hospital, Seattle, WA

11:10 am–11:25 am

DISCUSSION

11:25 am–11:30 am

- 17 **What Is The Expected Learning Curve In Computer Assisted Navigation For Bone Tumor Resection?**
German Luis Farfalli, MD; Jose Ignacio Albergo, MD; Lucas Eduardo Ritacco, MD; Miguel Angel Ayerza, MD; Federico Edgardo Milano, BS; Luis Alberto Aponte-Tinao, MD; Viviana Bompadre, PhD; Alissa Little RN
Italian Hospital of Buenos Aires

11:30 am–11:35 am

- 18 **Computer Navigation Aided Precision Resection Of Sacral Chordomas**
Yongkun Yang
Department of Orthopedic Oncology Surgery, Beijing Ji Shui Tan Hospital, Peking University

11:35 am–11:40 am

- 19 **Can You Improve Outcomes Of P1+S Resections Using Navigation?**
Minna Laitinen, MD, PhD; Michael Christopher Parry, MB, ChB, MD, FRCS (Ortho); Jose Ignacio Albergo, MD; Robert John Grimer, FRCS; **Lee M. Jeys, FRCS**
Royal Orthopaedic Hospital

11:40 am–11:45 am

- 20 **Patient-Specific 3D-Printed Registration And Cutting Guides For Hemicortical Resection And Reconstruction Of Metaphyseal Tumors Around The Knee**
Florencio Pablo Segura, MD; Facundo Segura; Facundo Pedemonte
SEGURA Centro Privado de Ortopedia y Traumatologia

11:45 am–12:00 pm

DISCUSSION

12:00 pm–1:00 pm

LUNCH *Coquina Hall South*

1:00 pm–5:00 pm

AFTERNOON SCIENTIFIC SESSION

1:00 pm–2:20 pm

BASIC SCIENCE/CLINICAL TRIALS

Moderators for Session 3:
C. Parker Gibbs Jr., MD; Toshifumi Ozaki, MD; Kurt Weiss, MD

1:00 pm–1:05 pm

- 21 **Mcs110, An Anti-Csf-1 Antibody, For The Treatment Of Pigmented Villonodular Synovitis**
Edward Y. Cheng, MD; Anna Kudlidjian MD; Joel A. Block; Steven Gitelis, MD; Robert Mikael Henshaw, MD; John Alexander Abraham, MD; Ursula Schramm Sr, PhD; Pascale Emilie Pinot, MSc; Yinuo Pang; Marie-Anne Valentin; Babul Borah; Ronenn Roubenoff, MD, MS
University of Minnesota

1:05 pm–1:10 pm

- 22 **Long-Term Treatment Of Tenosynovial Giant Cell Tumor (Tgct) With Plx3397, A Selective Colony Stimulating Factor 1 Receptor (Csf1r) Kinase Inhibitor**
Sandra Tong, MD; John H. Healey, MD, FACS; Charles Peterfy MD, PhD; Peter Countryman; Bartosz Chmielowski MD, PhD; Vicki L. Keedy MD; Arthur P. Staddon MD; Allen Lee Cohn MD; Carlos R. Becerra MD; Samuel Ejadi MD; William Tap, MD
Memorial Sloan Kettering Cancer Institute and other institutions

1:10 pm–1:15 pm

- 23 **Real-Time Tissue Discrimination During Soft Tissue Sarcoma Surgical Resection With Raman Spectroscopy**
Zain Sherali Gowani; John Quan Minh Nguyen, BS, MS; Maggie O'Connor; Isaac James Pence, MS; The-Quyen Nguyen, PhD; Anita Mahadevan-Jansen PhD; Ginger E. Holt, MD
Vanderbilt University

1:15 pm–1:20 pm

- 24 **Pet Response Criteria (Percist) Predict Progression-Free Survival And Time To Local Or Distant Progression After Chemotherapy With Regional Hyperthermia For Soft-Tissue Sarcoma**
Alexander Klein, MD; Hans Roland Dürr
Department of Orthopaedic Surgery, Orthopaedic Oncology, Ludwig-Maximilians-University of Munich, Munich, Germany

1:20 pm–1:25 pm

- 25 **Prophylactic Antibiotic Regimens In Tumor Surgery (PARITY): A Pilot Multi-Center Randomized Controlled Trial**
Michelle A. Ghert, MD; Robert E. Turcotte, MD, FRCSC
McMaster University

1:25 pm–1:30 pm

- 26 **Prospective Outcome Study Of Proton Therapy For Chordomas And Chondrosarcomas Of The Spine**
Daniel Indelicato, MD
University of Florida

1:30 pm–1:40 pm

DISCUSSION

1:40 pm–1:43 pm

- 27 **Today's Challenges In 3D Printing Process Chain Of Custom-Made Implants**
Peter Scheinmann; Lia Schenk
implantcast GmbH

1:43 pm–1:46 pm

- 28 **Implantation Of Customized 3-D Printed Titanium Prosthesis In Limb Salvage Surgery: A Case Series And Review Of The Literature**
Zheng Guo; Jun Fu, MD; Hongbin Fan, MD, PhD; Zhen Wang, MD
Department of Orthopaedic Surgery, Xi-Jing Hospital, the Fourth Military Medical University

1:46 pm–1:49 pm

- 29 **Raman Spectroscopy Demonstrates Pth Prevention Of Radiation-Induced Damage On Bone Mineral Properties And Blunting Of Bone Matrix Damage In An Irradiated Mouse Model**
Timothy A. Dameron, MD; Megan E. Oest, PhD; Kenneth A. Mann; Michael D. Morris, PhD
SUNY Upstate Medical University

1:49 pm–1:52 pm

- 30 **Radiofrequency Ablation Of Atypical Cartilaginous Tumors In The Long Bones; Proof Of Principle In 44 Patients.**
Paul C. Jutte, MD, PhD; Edwin Dierselhuis; Jelle Overbosch
University of Groningen, University Medical Center Groningen, The Netherlands.

1:52 pm–2:00 pm

DISCUSSION

2:00 pm–2:05 pm

- 31 **Identification Of Cdh46 As A Marker Of Tumor-Propagating Cells In Human Sarcomas Leads To Novel Treatment Opportunities**
Jay S. Wunder, MD; Yuning Jackie Tang; Qingxia Wei PhD; Heather Whetstone MSc; Ilkyu Han, MD; Benjamin Alman, MD
Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, Canada

2:05 pm–2:10 pm

- 32 **Three-Dimensional (3D) Culture Of Bone Derived 786-O Renal Cell Carcinoma Retains Relevant Clinical Characteristics Of Bone Metastases**
Robert L. Satcher Jr, MD; Tianhong Pan; Mariane Martinez; Daniel A. Harrington; Sue-Hwa Lin;
MD Anderson Cancer Center

2:10 pm–2:15 pm

- 33 **Inhibition Of Plk Induces Growth Arrest And Apoptosis In Tumorigenic Os Cells**
Maria V. Guijarro, PHD; Elham Nasri, MD; Ali Zarezadeh, MD; Yuan Lu; Emma Maria Viktoria Hyddmark, BS; Margaret Ellen White; Glyn D. Palmer; Padraic P. Levings; Steven Ghivizzani; C. Parker Gibbs Jr., MD
University of Florida

2:15 pm–2:20 pm

- 34 **Drivers Of Mesenchymal-Epithelial Transitions In Sarcomas**
Suzanne Bartholf Dewitt, DVM; Jason Somarelli; Mary Keara Boss; Alexander Hish; Shivee Gilja; William Eward, MD, DVM
Duke University

2:20 pm–2:30 pm

DISCUSSION

2:30 pm–3:00 pm

BREAK *Coquina Hall South*

3:00 pm–3:10 pm

- INTRODUCTION TO BIOLOGIC RECONSTRUCTION • LUIS APONTE-TINAO, MD
Moderators for Session 4:
Robert H. Quinn, MD; David D. Greenberg, MD; Olavo Pires De Carmargo, MD, PhD

3:10 pm–3:15 pm

- 35 **Clinical Outcomes Of Patients Reconstructed With Heat-Treated Autograft After Resection Of Malignant Musculoskeletal Tumors**
Kunihiro Ikuta, MD; Kozawa Eiji; Hamada Shunsuke; Ueda Takafumi; Ishiguro Naoki
Department of Orthopaedic Surgery, Nagoya University Graduate School of Medicine

3:15 pm–3:20 pm

- 36 **Extra-Corporeal Irradiated Bone Autografts In Reconstruction Of Diaphyseal Tibial Defects**
Mobolaji Ajekigbe, BS; Czar Louie Gaston, MD; Lee M. Jeys, FRCS; Roger Tillman, FRCS; Simon R. Carter, MD; Robert John Grimer, FRCS; Adesegun Abudu, FRCS, FRCS (Ortho), MSc
Royal Orthopaedic Hospital

3:20 pm–3:25 pm

- 37 **Recycled Autograft Augmented With Vascularized Fibular Graft For Reconstruction Of Bone Defects After Tumor Resection**
Min Wook Joo, MD; Kyung Il Kim; Yong Koo Kang, MD; Yang Guk Chung, MD; Won-Jong Bahk; Seung Han Shin, MD, PhD; Jin-Woo Kang
Department of Orthopaedic Surgery, The Catholic University of Korea, Republic of Korea

3:25 pm–3:30 pm

- 38 **Complications Of Recycled Autograft For Reconstruction After Malignant Musculoskeletal Tumor Resection**
Min Wook Joo, MD; Yong Koo Kang, MD; Yang Guk Chung, MD; Xiaohui Niu, MD; Hiroyuki Tsuchiya, MD
Department of Orthopaedic Surgery, College of Medicine, The Catholic University of Korea, Republic of Korea

3:30 pm–3:45 pm

DISCUSSION

3:45 pm–3:48 pm

- 39 **Biological Reconstruction After Resection Of Malignant Bone Tumors**
Rainer Baumgart, MD
ZEM-Germany Limb Lengthening Center Munich

3:48 pm–3:51 pm

- 40 **Primary Arthroplasty In Healed Osteoarticular Allografts In Patients With History Of Primary Femoral Bone Tumors**
Nuno Rui Cools Paulino Pereira, MD, MSc; Bianca Monica Verbeek, MD; Joseph Hasbrouck Schwab, MD; Santiago Lozano Calderon, MD, PhD
Massachusetts General Hospital

3:51 pm–3:54 pm

- 41 **Bone-Tendon-Bone Allograft Reconstruction For Peri-Patella Sarcoma Cases**
Jungo Imanishi; Damien Grinsell, FRACS; Peter Choong, MB, BS, MD, FRACS
St. Vincent's Hospital, Melbourne

3:54 pm–3:57 pm

- 42 **Functional Neuro-Vascularized Muscle Transfer For Oncological Reconstruction Of Extremity Sarcoma**
Keiichi Muramatu
Yamaguchi University Hospital

3:57 pm–4:05 pm

DISCUSSION

4:05 pm–4:10 pm

- 43 **Is It The Expandable Prosthesis The Only Reconstructive Option After Distal Femur Resections In Children With High-Grade Bone Sarcomas?**
Laura Campanacci, MD; Davide Donati, MD; Marco Manfrini, MD
Istituto Ortopedico Rizzoli

4:10 pm–4:15 pm

- 44 **Lower Limb Reconstructions With Bone Massive Allograft In Pediatric Patients**
Daniel Andreas Müller, MD; Giovanni Beltrami, MD; Francesca Totti, MD; Guido Scoccianti; Rodolfo Capanna, MD
Orthopaedic Oncology Unit, Careggi University Hospital, Florence, Italy

- 4:15 pm–4:20 pm 45 **Functional Outcome In Children Undergoing Resection-Arthrodesis For Malignant Tumors Around The Knee Joint**
Shah Alam Khan, MS, DNB, MRCSEd, FRCS, **M.Ch.Orth**
All India Institute of Medical Sciences, New Delhi, India
- 4:20 pm–4:25 pm 46 **Femoral Physeal Fixation And Growth Abnormalities After Pediatric Limb Salvage**
Ernest U. Conrad III, MD; Tressa Mattioli-Lewis, BS, MPH; John Shapton BS; Stephanie Punt, BS; Bhasanan Sukanthanak
Seattle Children's Hospital, Seattle, WA USA
- 4:25 pm–4:40 pm **DISCUSSION**
- 4:40 pm–4:45 pm 47 **A Novel "Homolateral Femur Rotation-Lengthening With Allograft Transplantation Technique" As An Option Of Reconstruction For Huge Defects After Pelvic Tumor Resection: Technical Note And Early Experience**
Xiaohui Niu, MD; Hairong Xu, MD; Yuan Li
Department of Orthopedic Oncology Surgery, Beijing Ji Shui Tan Hospital, Peking University, Beijing, China
- 4:45 pm–4:50 pm 48 **Allograft Reconstruction For The Proximal Humerus - Does It Work?**
Daniel Andreas Müller, MD; Giovanni Beltrami, MD; Guido Scoccianti; Rodolfo Capanna, MD
Orthopaedic Oncology Unit, Careggi University Hospital, Florence, Italy
- 4:50 pm–4:55 pm 49 **Outcome And Complications Following Free Fibula Reconstruction For Oncologic Defects Of The Extremities**
Matthew Thomas Houdek, MD; Eric R. Wagner, MD; Franklin H. Sim, MD; Allen T. Bishop, MD; Alexander Yong Shik Shin, MD; Steven L. Moran, MD
Mayo Clinic
- 4:55 pm–5:00 pm 50 **Massive Pelvic Allograft Reconstruction Of The Acetabular Area: Management Of Hip Mechanical Failure**
Carlo Romagnoli, MD; Federica Mariotti; Matteo Romantini, MD; Massimiliano Depaolis; **Davide Donati, MD**
Istituto Ortopedico Rizzoli
- 5:00 pm–5:15 pm **DISCUSSION**
- 6:00 pm **WELCOME RECEPTION** *Fairways Lawn Ritz Carlton Golf Club*

THURSDAY OCTOBER 8, 2015**8:00 am–12:00 pm MORNING SCIENTIFIC SESSION**

- 8:00 am–8:10 am **INTRODUCTION TO PROSTHETIC RECONSTRUCTION • REINHARD WINDHAGER, MD**
Moderators for Session 5:
Georg Gosheger, MD; Francis R. Patterson, MD
- 8:10 am–8:15 am 51 **Revision Surgery Does Not Lead To Increased Rate Of Failure In Proximal Humerus Reconstruction With A Metallic Endoprosthesis: A Multi-Center Study**
John Groundland, MD; Odion Binitie, MD; Michaël Bus, MSc; Sofia Thoma MD; Sander Dijkstra, MD; Tom Cosker; Michiel Van De Sande, MD, PhD; G Douglas Letson, MD
University of South Florida, H. Lee Moffitt Cancer Center, Nuffield Orthopedic Centre, Oxford, UK, Leiden University Medical Center
- 8:15 am–8:20 am 52 **The Use Of Reverse Total Shoulder Arthroplasty In Primary And Revision Implants After Resection Of Tumors Of The Proximal Humerus: A Report Of 20 Cases**
Pietro Ruggieri, MD, PhD; Teresa Calabrò; Andrea Angelini, MD; Giulia Trovarelli; Elisa Pala, MD
II Department of Orthopedics, University of Bologna, Istituto Rizzoli, Italy
- 8:20 am–8:25 am 53 **Internal Hemipelvectomy Reconstruction With Ice-Cream Cone Type Prosthesis**
Irene Barrientos Ruiz; Eduardo Jose Ortiz Cruz Sr, MD; Manuel Peleteiro Pensado Sr.
University Hospital La Paz
- 8:25 am–8:30 am 54 **Managing Large Bone Defects With Custom Spacers In Patients With Musculoskeletal Infections**
Joseph Benevenia, MD; Francis Robert Patterson, MD; Kathleen S. Beebe, MD; Steven Rivero, MD
Rutgers New Jersey Medical School
- 8:30 am–8:40 am **DISCUSSION**
- 8:40 am–8:43 am 55 **Gait Analysis In Patients With Endoprosthesis Replacement Around The Knee**
Prof. Dr. Vivek Ajit Singh, MBBS, MD
University Malaya Medical Center

- 8:43 am–8:46 am 56 **Extra-Articular Resection Of The Knee For Distal Femur Bone Sarcomas: A Retrospective Review Of 30 Cases**
Nicola Fabbri, MD; **Eleonora Marini, MD**; Rui Yang, MD; Patrick J. Boland, MD; John H. Healey, MD, FACS
Memorial Sloan-Kettering Cancer Center
- 8:46 am–8:49 am 57 **Uni- Or Bipolar Proximal Femoral Endoprosthesis Following Tumour Reconstruction: Are Acetabular Resurfacings Necessary?**
Jonathan Daniel Stevenson; Venkatesan Kumar
Robert Jones & Agnes Hunt Orthopaedic Hospital, Oswestry
- 8:49 am–8:52 am 58 **Endoprosthetic Replacement For Malignant Tumors Of The Proximal Femur: A Consecutive Series Of 211 Patients**
Matthew Thomas Houdek, MD; Benjamin Wilke, MD; Cody Wyles, BS; Peter S. Rose, MD; Michael J. Taunton, MD; Franklin H. Sim, MD
Mayo Clinic
- 8:52 am–8:55 am 59 **Two-Institution Experience Of A Non-Invasive Expandable Endoprosthesis In The Pediatric Population**
Odion Binitie, MD; Giulia Trovarelli; Tyag Patel, BS; Pietro Ruggieri, MD, PhD; **G. Douglas Letson, MD**
Moffitt Cancer Center, Istituto Ortopedico Rizzoli
- 8:55 am–8:58 am 60 **Intercalary Endoprosthetic Reconstruction For Skeletal Defects Of The Femur, Tibia, And Humerus**
Joseph Benevenia, MD; Rainer Kirchner, DMed; Francis Robert Patterson, MD; Kathleen S. Beebe, MD; Dieter Wirtz, MD; Steven Rivero, MD; Mark James Palma, MS; Max Friedrich
Rutgers New Jersey Medical School
- 8:58 am–9:10 am **DISCUSSION**
- 9:10 am–9:15 am 61 **The Lumic Prosthesis For Pelvic Reconstruction After Periacetabular Tumor Resection: Clinical Results From A European Collaborative Study**
Michael P.A. Bus; Michaël Bus, MSc; Andrzej Szafranski; Simen Sellevold; Tomasz Goryn; Paul C. Jutte, MD, PhD; Jos Bramer, MD, PhD; Arne Streitbueger, MD; Andrzej Pienkowski; Daniel Kotrych, MD, PhD; Joanna Krzywda-Pogorzelska; Magdalena Emilia Rychlowska-Pruszyńska, DMed; Georg Gosheger, MD, PhD; Michiel Van De Sande, MD, PhD; **Sander Dijkstra, MD**
Leiden University Medical Center
- 9:15 am–9:20 am 62 **X-Ray Predictors Of Osseointegration For Uncemented Oncologic Implants**
Stephanie Punt, BS; Jedediah K. White, BS; Mital Sumankumar Patel, MBBS, MS; **Ernest U. Conrad III, MD**
University of Washington Medical Center
- 9:20 am–9:25 am 63 **Very Long Term Outcomes Following Endoprosthetic Replacements**
Robert John Grimer; Kerem Aydin MD; Lee M. Jeys, FRCS; Michael Christopher Parry, MB, ChB, MD, FRCS (Ortho); Hazem Wafa, MD; Roger Tillman, FRCS; Simon R Carter, MD
Royal Orthopaedic Hospital, Birmingham
- 9:25 am–9:30 am 64 **Long Term Results Of Cemented, Hydroxyapatite Coated Distal Femoral Replacements. Has Aseptic Loosening Been Abolished And If So, Why Do They Fail?**
Roger Tillman, FRCS; Michael Christopher Parry, MB, ChB, MD, FRCS (Ortho); Seggy Abudu FRCS; Lee M. Jeys, FRCS; Simon R. Carter, MD; Kerem Aydin MD; **Robert John Grimer**
- 9:30 am–9:35 am 65 **Silver Coated Endoprosthesis: Short To Medium Term Follow-Up At The Royal Orthopaedic Hospital**
Jose Ignacio Albergro, MD; Czar Louie Gaston, MD; Minna Laitinen, MD; Michael Christopher Parry, MB, ChB, MD, FRCS (Ortho); Lee M. Jeys, FRCS; Simon R. Carter, MD; Roger Tillman, FRCS; Adesegun Abudu, FRCS, FRCS (Ortho), MSc; Robert John Grimer, FRCS
Royal Orthopaedic Hospital
- 9:35 am–9:45 am **DISCUSSION**
- 9:45 am–9:48 am 66 **Implant Survivorship And Modes Of Failure For Proximal Femoral, Distal Femoral And Tibial Reconstruction With Compressive Endoprosthetic Osseointegration Fixation**
Yee-Cheen Doung, MD; **Ryland Kagan, MD**; Jacob R. Adams, MD; Caroline Schulman, BS; James B. Hayden, MD
Oregon Health and Sciences University
- 9:48 am–9:51 am 67 **Proximal Femoral And Proximal Tibial Compressive Osseointegration: Intermediate Term Outcomes**
Richard J. O'Donnell, MD; **Hwan-Seong Cho, MD**; Lauren Allyson Hackney, MD; Brian Cook, MD; Richard John O'Donnell, MD; Rosanna Lisa Wustrack, MD
UCSF Helen Diller Family Comprehensive Cancer Center
- 9:51 am–9:54 am 68 **Reconstruction After Tumor Resection Of The Elbow - What Works Best?**
Daniel Andreas Müller, MD; Guido Scoccianti; Rodolfo Capanna, MD; **Giovanni Beltrami, MD**
Orthopaedic Oncology Unit, Careggi University Hospital, Florence, Italy

- 9:54 am–9:59 am 69 Endoprosthetic Failure After Resection Of Primary Or Secondary Bone Tumors In The Proximal Humerus And Reconstruction With The Mutars™ System—A Systematic Analysis
Arne Streitberger; Jendrik Harges; Georg Goshager, MD, PhD; Markus Nottrott, MD, PhD; Jan Niklas Bröking, MD; Marcel-Philipp Henrichs, MD; Dimosthenis Andreou, MD
- 10:00 am–10:15 am DISCUSSION
- 10:15 am–10:45 am BREAK *Coquina Hall South*
- 10:45 am–10:55 pm INTRODUCTION TO BENIGN BONE TUMORS • FRANCIS Y. LEE, MD, PHD
Moderators for Session 6:
Ajay Puri, MD; Felasfa Wodajo, MD
- 10:55 am–11:00 am 70 Denosumab As Adjuvant Treatment For Giant Cell Tumor Of Bone - Risks And Benefits For The Oncologic Surgeon
Daniel Andreas Müller, MD; Giovanni Beltrami, MD; Guido Scoccianti; Rodolfo Capanna, MD
Orthopaedic Oncology Unit, Careggi University Hospital, Florence, Italy
- 11:00 am–11:05 am 71 Is Denosumab Boon Or Bane In Complicated Giant Cell Tumour Treatment? - Single Institution Experience - 72 Cases
Raghavendra Rao, PhD; Nagaraj KR, MBBS, MD; Shilpa Prabhudesai, MD; Navaneeth S. Kamath; Pramod Chinder
HCG - Bangalore Institute of Oncology
- 11:05 am–11:10 am 72 The Use Of Denosumab In Giant Cell Tumour (Gct) Of Bone: A Review Of 44 Patients
Czar Louie Gaston, MD; Jose Ignacio Albergo, MD; Hazem Wafa, MD; Krishna I. A. Reddy, MBBS, MS, FRCS (Ortho); Robert John Grimer, FRCS
Royal Orthopaedic Hospital NHS Foundation Trust
- 11:10 am–11:15 am 73 Denosumab – A New Bullet In The Armamentarium For Giant Cell Tumor
Ajay Puri, MD; Ashish Gulia; Vivek Verma
Tata Memorial Hospital, Mumbai, India
- 11:15 am–11:30 am DISCUSSION
- 11:30 am–11:33 am 74 Retrospective Evaluation Of Cartilage Tumors Of Long Bones Under Clinico-Radiological Surveillance
Venkatesan Sampath Kumar; Prudencia Tyrrell; Jonathan James Gregory
Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry, Shropshire, United Kingdom SY10 7AG
- 11:33 am–11:36 am 75 Osteoarthritis Of The Hip In Fibrous Dysplasia Of The Proximal Femur
Ilkyu Han; Seung Bin Im; Han-Soo Kim, MD, PhD
Seoul National University Hospital
- 11:36 am–11:39 am 76 Coralline Hydroxyapatite Reduces Local Recurrence Of Benign Bone Lesions
Melissa Nicole Zimel, MD; Alexandra Zindman; John H. Healey, MD, FACS
Memorial Sloan Kettering Cancer Center
- 11:39 am–11:42 am 77 Risk Factors In Allogeneous Strut Graft Surgery In Fibrous Dysplasia Of The Proximal Femur.
Sander Dijkstra, MD; Bas C.J. Majoor MD; Michiel Van De Sande, MD, PhD; Nevene A.T. Hamdy MD
Leiden University Medical Center
- 11:42 am–11:55 am DISCUSSION
- 11:55 am–12:00 pm 78 Freezing Nitrogen Ethanol Composite (Fne), A New Effective Cryoablation Technology
As An Adjuvant Modality Treatment For Giant Cell Tumor Of Bone
Po-Kuei Wu; Cheng-Fong Chen, MD; Chen Wei-Ming
Taipei Veteran General Hospital
- 12:00 pm–12:05 pm 79 Role Of Bisphosphonates In Giant Cell Tumor Of Bone—A Prospective Randomized Control Study.
Manoj K. Shishir Rastogi; Shah Alam Khan; Siddharth Dubey
All India Institute of Medical Sciences
- 12:05 pm–12:10 pm 80 Distal Radius Giant Cell Tumor Resection And Reconstruction With Non-Vascularized Iliac Crest Graft Wrist Arthrodesis
Tao Wang MD; Chung Ming Chan, MBBS; Feng Yu MD; Yuan Li MD; Xiaohui Niu, MD
Department of Orthopedic Oncology, Beijing Ji Shui Tan Hospital, Peking University, Beijing, People's Republic of China
- 12:10 pm–12:15 pm 81 Treatment Of Aneurysmatic Bone Cysts
Johan Pot; Sander Dijkstra, MD; Michiel Van De Sande, MD, PhD
LUMC Leiden

12:15 pm–12:30 pm DISCUSSION

REST OF AFTERNOON FREE

FRIDAY OCTOBER 9, 2015

8:00 am–8:45 am

PELVIC TUMOR SURGERY: THE RIZZOLI INSTITUTE EXPERIENCE
ISOLS Presidential Guest Speaker • Pietro Ruggieri, MD, PhD

8:45 am–9:00 am

DISCUSSION

9:00 am–12:00 pm

MORNING SCIENTIFIC SESSION

9:00 am–12:00 pm

PELVIC AND SPINE TUMOR

Moderators for Session 7:

G. Douglas Letson, MD; Valerae O. Lewis, MD

9:00 am–9:05 am

82 Complications And Outcome After Surgical Treatment Of Pelvic Sarcomas—Does Competing Risk Add To Treatment Considerations?

Reinhard Windhager, MD; Puchner Stephan, MD; Philipp Theodor Funovics, MD; Alexandra Kaider, MSc; Madeleine Willegger; Christoph Stihsen; Gerhard Martin Hobusch, MD; Joannis Panotopoulos
Department of Orthopaedics, Medical University of Vienna

9:05 am–9:10 am

83 Morbidity, Mortality And Blood Loss Associated With Pelvic And Sacral Tumour Surgery

Richard Shellard; Tom Neal, MBChB; Czar Louie Gaston, MD; Robert John Grimer, FRCS; Lee M. Jeys, FRCS
Royal Orthopaedic Hospital, Birmingham, UK

9:10 am–9:15 am

84 Resection Of The Acetabulum And Pelvis: Should We Still Offer Reconstructive Options?

Joseph Benevenia, MD; Francis Robert Patterson, MD; Kathleen S. Beebe, MD; Steven Rivero, MD
Rutgers New Jersey Medical School

9:15 am–9:20 am

85 Functional Outcome Following “No Reconstruction” In Patients Undergoing Periacetabular (Type-Ii) Pelvic Resection
Shah Alam Khan, MS, DNB, MRCSEd, FRCS, M.Ch.Orth
All India Institute of Medical Sciences, New Delhi, India

9:20 am–9:25 am

86 Male And Female Sexual Dysfunction Following Pelvic Tumor Surgery—Sexual Dysfunction Following Pelvis Surgery

Ernest U. Conrad III, MD; Yi Guo, MD; Stephanie Punt, BS
University of Washington, Seattle, WA

9:25 am–9:40 am

DISCUSSION

9:40 am–9:43 am

87 Intrapelvic And Lumbopelvic Reconstruction Outcomes After Acetabulum-Sparing Tumor Resections

Bugra Alpan; Ahmet Salduz, MD; Turgut Akgul, MD; Fatih Dikici
Istanbul University-Istanbul Faculty of Medicine-Dept. of Orthopaedics and Traumatology

9:43 am–9:46 am

88 Functional Outcome Following Total Sacrectomies Without Spino-Pelvic Reconstruction

Piya Kiattisevi; Chaiwat Piyaskulkaew; Sombat Kunakornsawat; Bhasanan Sukanthanak
Orthopaedic Oncology Service, Institute of Orthopaedic, Lerdsin Hospital, Bangkok, Thailand

9:46 am–10:00 am

DISCUSSION

10:00 am–10:30 am

BREAK *Coquina Hall South*

10:30 am–11:25 am

MODERATORS FOR SESSION 7 CONTINUED

Davide M. Donati, MD; Peter S. Rose, MD

10:30 am–10:35 am

89 Sacral Chordoma: A Clinical Review Of 157 Cases With 30-Year Experience In A Single Institute

Xin Sun; Francis J. Hornicek, MD
Massachusetts General Hospital

10:35 am–10:40 am

90 Conditional Survival And Functional Outcome Following Surgical Treatment For Sacral Chordoma:

A Monocentric Retrospective Review Of 115 Consecutive Cases
Tao Ji, MD; Wei Guo, MD, PhD; Xiaodong Tang; Yi Yang, MD
Musculoskeletal Tumor Center, People's Hospital, Peking University

- 10:40 am–10:45 am 91 **Surgical Strategies In Patients With Spinal Giant Cell Tumor: Twelve-Year'S Clinical Experience And Outcomes**
Wei Guo, MD, PhD; Xin Sun; Rongli Yang; Xiaodong Tang
Musculoskeletal Tumor Center, Peking University People's Hospital, Beijing, China, 100044
- 10:45 am–10:50 am 92 **Limb Lengthening After Internal Hemipelvectomy With The Fitbone-System**
Rainer Baumgart, MD
ZEM-Germany Limb Lengthening Center Munich
- 10:50 am–11:05 am **DISCUSSION**
- 11:05 am–11:08 am 93 **Intra-Aortic Balloon Occlusion To Prevent Bleeding In Pelvic Tumours: A Case Control Study**
Michele Boffano, MD; Valentina Rastellino; Stefano Marone; Ugo Albertini; Valter Verna; Maurizio Berardino; Raimondo Piana
AOU Città della Salute e della Scienza, Torino, Italy
- 11:08 am–11:11 am 94 **Giant Cell Tumor Of The Sacrum Treated With Conservative Surgery: 35 Years' Experience**
Chandhanarat Chandhanayingyong, MD; John H. Healey, MD, FACS; Patrick J. Boland, MD
Memorial Sloan Kettering Cancer Center
- 11:11 am–11:14 am 95 **Microwave Ablation Of Pelvic Malignant Bone Tumors**
Qingyu Fan; Yong Zhou; Minghua Zhang; Baoan Ma; Tongtao Yang; Hua Long; Zhe Yu; Lianhe Zheng; Zhao Li, MD
Department of Orthopedic Surgery, Tangdu Hospital, Fourth Military Medical University
- 11:15 am–11:25 am **DISCUSSION**
- 11:25 am–11:35 am **INTRODUCTION TO SOFT TISSUE SARCOMAS • EDWARD Y. CHENG, MD**
Moderators for Session 8:
Hiroyuki Tsuchiya, MD, PhD; Gregory F. Domson, MD
- 11:35 am–11:40 am 96 **The Effect Of Surgical Margins On Local Recurrence And Survival After Resection Of High-Grade Soft Tissue Sarcomas Of The Extremities: Through The Eyes Of A Multi-State Model.**
Michiel Van De Sande, MD, PHD; Julie J. Willeumier; Anja Rueten-Budde; PD Sander Dijkstra MD, PhD; Lee M. Jeys, FRCS; Minna Laitinen, MD; Rob Pollock, FRCS; William Aston, FRCS; Peter Ferguson, MD; Anthony M. Griffin, MSc; Jay Wunder, MD; Marta Fiocco, PhD
Leiden University Medical Center
- 11:40 am–11:45 am 97 **Clinical Outcomes Of Unplanned Soft Tissue Sarcoma Excision In Comparison With Primary Planned Excision At Sarcoma Center; The Impact Of Residual Tumor In Re-Excision Specimen**
Jungo Imanishi; Chris Charoenlap, MD; Samuel Ngan; John Slavin; Sarat Chander; Takaaki Tanaka, MD, PhD; Michelle Maree Dowsey, PhD; Chatar Goyal, MD; Peter Choong, MB, BS, MD, FRACS
St. Vincent's Hospital, Melbourne and Peter MacCallum Cancer Centre, East Melbourne
- 11:45 am–11:50 am 98 **Locally Recurrent Soft Tissue Sarcoma: Outcomes With Re-Irradiation And/Or Surgical Excision**
Anthony M. Griffin, MSc; Colleen I. Dickie MSc; Peter W. Chung MD; Peter Ferguson, MD; Jay Wunder, MD; Brian O'Sullivan MD; Charles Catton, MD
Mount Sinai Hospital
- 11:50 am–12:00 pm **DISCUSSION**
- 12:00 pm–1:00 pm **LUNCH** *Coquina Hall South*

1:00 pm–5:00 pm AFTERNOON SCIENTIFIC SESSION

- 1:00 pm–2:05 pm **MODERATORS FOR SESSION 8 CONTINUED**
Hiroyuki Tsuchiya; Gregory F. Domson, MD nati, MD; Peter S. Rose, MD
- 1:00 pm–1:05 pm 99 **What Is The Significance Of A Fungating Soft Tissue Sarcoma?**
Michael Parry, FRCS (ORTHO), MD; Subin Sugath Jr; Hazem Wafa, MD; Czar Louie Gaston, MD; Lee M. Jeys, FRCS; Robert John Grimer, FRCS
Royal Orthopaedic Hospital, Birmingham, UK
- 1:05 pm–1:10 pm 100 **Fdg Pet-Ct Response After Neoadjuvant Chemotherapy Continues To Predict Progression Free Survival At Mid-Term In Prospective Trial For Soft Tissue Sarcomas**
Edward Y Cheng, MD; Juan C. Manivel, MD; Brenda Weigel; Keith M. Skubitz MD
University of Minnesota

- 1:10 pm–1:15 pm 101 **Brachy Vac Treatment Of Superficial Malignancies- Results Of A Consecutive Case Series**
Richard Louis McGough, MD; Mark A. Goodman, MD; Kurt Richard Weiss, MD
University of Pittsburgh
- 1:15 pm–1:20 pm 102 **Retrospective Review Of The Adequacy Of Community Magnetic Resonance Imaging (Mri) For Soft Tissue Sarcoma In The Periphery**
David M. Joyce, MD; Tyag Patel, BS; Jamie T. Caracciolo, MD, MBA; G. Douglas Letson, MD
Moffitt Cancer Center
- 1:20 pm–1:25 pm 103 **Vancomycin Powder Reduces Risk Of Wound Complication In Orthopaedic Tumor Surgery**
John Alexander Abraham, MD; Christina J. Gutowski, MD; Kristin Strogus; Bridget Sayde; Kirsten Ross, BS
Thomas Jefferson University Hospital
- 1:25 pm–1:40 pm **DISCUSSION**
- 1:40 pm–1:43 pm 104 **Myxofibrosarcoma: A Difficult-To Treat Soft Tissue Sarcoma - Considerations After 85 Patients**
Daniel Andreas Müller, MD; Giovanni Beltrami, MD; Guido Scoccianti; Rodolfo Capanna, MD
Orthopaedic Oncology Unit, Careggi University Hospital, Florence, Italy
- 1:43 pm–1:46 pm 105 **Intraoperative Differentiation During Soft Tissue Sarcoma Excision Using Near Infrared Autofluorescence Spectroscopy**
John Q Nguyen; Zain Sherali Gowani, BA; Maggie E. O'Connor; Isaac J. Pence BE, MS; The-Quyen Nguyen, PhD; Anita Mahadevan-Jansen PhD; Ginger E. Holt, MD
Vanderbilt University
- 1:46 pm–1:49 pm 106 **The Influence Of Diabetes, Obesity & Anatomic Location On The Development Of Post-Operative Wound Infections Following Soft Tissue Sarcoma Resection: A Multi-Institutional Study**
Jeremy White, MD; Julie Stoner, PhD; Michael Cassidy Maxted, MD; Benjamin J. Miller, MD, MS; Raffi Stephen Avedian, MD; Tessa Balach, MD; David Daniel Greenberg, MD; Lee Rodney Leddy, MD; Kevin MacDonald, MD; Rajiv Rajani, MD; Andre R do Valle Spiguel, MD
University of Oklahoma Health Sciences Center - Oklahoma City
- 1:49 pm–1:52 pm 107 **Does The Use Of Wound Vacuum Assisted Closure (Vac) Therapy Increase The Risk Of Local Recurrence After Sarcoma Excision?**
Phillip A. Taylor, MD; Gregory F Domson, MD
Virginia Commonwealth University Health System
- 1:52 pm–1:55 pm 108 **Treatment Of Sarcoma Lung Metastases With External Beam Radiotherapy: Experience At A Tertiary Referral Center**
Adam Lindsay; Edward Haupt, MD; Mark T. Scarborough, MD; Andre R. do Valle Spiguel, MD; Chung Ming Chan, MBBS; Robert A. Zlotecki, MD; C. Parker Gibbs Jr., MD; Melissa Marie Peters, MD
University of Florida
- 1:55 pm–2:05 pm **DISCUSSION**
- 2:05 pm–2:15 pm **INTRODUCTION TO BONE SARCOMA • JAY S. WUNDER, MD**
Moderators for Session 9:
Francis J. Hornicek, MD, MD; Ginger E. Holt, MD
- 2:15 pm–2:20 pm 109 **A Novel System For The Surgical Staging Of Primary High-Grade Osteosarcoma: The Birmingham Classification**
Michael Parry, FRCS (ORTHO), MD; Lee M. Jeys, FRCS; Chris Thorne; Vaiyapuri P. Sumathi; Robert John Grimer, FRCS
The Royal Orthopaedic Hospital, Birmingham, UK
- 2:20 pm–2:25 pm 110 **Development And Validation Of A Pretreatment Prognostic Index To Predict Death And Lung Metastases For Extremity Osteosarcoma**
Jian Tu; Bo Wang; Jin Wang, MD; Jingnan Shen, MD, PhD
Bone and Soft Tissue Tumor Center, First Affiliated Hospital of Sun Yat-Sen University, Guangzhou, China
- 2:25 pm–2:30 pm 111 **Post-Metastasis Survival In High-Grade Extremity Osteosarcoma: A Retrospective Analysis Of Prognostic Factors Of 126 Patients.**
Wanlim Kim; Ilkyu Han, MD; Jong Seok Lee; Han-Soo Kim, MD, PhD
Seoul National University Hospital
- 2:30 pm–2:35 pm 112 **The Role Of 18F-Fdg Pet/Ct For The Detection Of Recurrent Osteosarcoma**
Pietro Ruggieri, MD, PhD; Andrea Angelini, MD; Francesco Ceci, MD; Tiziano Graziani, MD; Giulia Trovarelli; Paolo Castellucci, MD
II Department of Orthopedics, University of Bologna, Istituto Rizzoli, Italy

- 2:35 pm–2:40 pm 113 **Why Can'T We All Speak The Same Language? An Analysis Of The Definition And Significance Of Margins In The Euramos-1 Trial**
Robert John Grimer; R. Lor Randall, MD; Reinhard Windhager, MD; Otte Brosjö Sr, MD; Gordana Jovic, PhD; Jeremy Whelan, MBBS, MD; Stefan Bielack, MD; Neyssa Marina, MD, MS; Sigbjorn Smeland, MD; Mark Krailo; Trude Butterfass-Bahloul, DMed; Pancras C.W. Hogendoorn, PhD; Mark Lawrence Bernstein, MD; Matthew R. Sydes, MSc
Medical Research Council, Clinical Trials Unit, University College London, United Kingdom
- 2:40 pm–2:45 pm 114 **The Effect Of Surgical Timing On The Outcome Of Localized Extremity Osteosarcoma**
Soo-Yong Lee; Chang-Bae Kong, MD; Wonseok Song, MD, PhD; Wan Hyeong Cho
Department of Orthopedic Surgery, Korea Cancer Center Hospital, Seoul, Korea
- 2:45 pm–3:00 pm **DISCUSSION**
- 3:00 pm–3:30 pm **BREAK** *Coquina Hall South*
- 3:30 pm–5:00 pm **MODERATORS FOR SESSION 9 CONTINUED**
Gerard J. Powell, MBBS; Nickolas B. Reimer, MD
- 3:30 pm–3:35 pm 115 **Osteofibrous-Dysplasia-Like-Adamantinoma And Adamantinoma: A Clinical, Radiological And Histological Analysis Of 82 Cases**
Michiel Van De Sande, MD, PhD; Emile M Schutgens MD; Sander Dijkstra, MD; Rob Pollock, FRCS; Judith Bovee; Pancras C.W. Hogendoorn, PhD
Leiden University Medical Centre
- 3:35 pm–3:40 pm 116 **Prognostic Factors And Outcomes Of Dedifferentiated Chondrosarcoma – A Single Institution Experience**
Christopher John Matthews, MD; Andre R. do Valle Spiguel, MD; C. Parker Gibbs Jr., MD
University of Florida Department of Orthopaedics and Rehabilitation
- 3:40 pm–3:45 pm 117 **Is Radiation Worth The Risk For Diffuse Large B-Cell Lymphoma Of Bone In The Era Of Chop-R Therapy?**
Nicholas Bernthal, MD; William Mendanha; Scott D. Nelson, MD; Kamallesh Sankhala; Sant Chawla
UCLA
- 3:45 pm–3:50 pm 118 **Is Needle Biopsy Clinically Useful In Pre-Operative Grading Of Central Chondrosarcoma Of Pelvis And Long Bones?**
Luis Alberto Aponte-Tinao, MD; Pablo Roitman MD; German Luis Farfalli, MD; Miguel Angel Ayerza, MD; Domingo Luis Muscolo, MD; Federico Edgardo Milano, BS
Italian Hospital of Buenos Aires
- 3:50 pm–4:00 pm **DISCUSSION**
- 4:00 pm–4:03 pm 119 **Is Pet-Ct An Accurate Method For The Differential Diagnosis Between Chondroma And Chondrosarcoma?**
Reynaldo Jesus-Garcia, MD; Dan CM Viola MD; Marcos Korukian MD
Hospital Israelita Albert Einstein - Sao Paulo - Brazil
- 4:03 pm–4:06 pm 120 **Tumor Necrosis: Does It Define The Need For Post Operative Radiotherapy In Ewing's Sarcoma?**
Ajay Puri, MD; Ashish Gulia; Siddhartha Laskar; Saniya Carmel Crasto, BS, MBA; Nehal Khanna
Tata Memorial Hospital, Mumbai, India
- 4:06 pm–4:09 pm 121 **Periosteal Osteosarcoma; The University Of Florida Experience**
Chung Chan, MBBS; Adam Douglas Lindsay, MD; John D Reith, MD; Mark T. Scarborough, MD; C. Parker Gibbs Jr., MD
University of Florida
- 4:09 pm–4:12 pm 122 **Adamantinoma Of The Long Bones_ A Retrospective Study Of 18 Cases**
Zhiping Deng, MD
Department of Orthopaedic Oncology Surgery, Beijing Ji Shui Tan Hospital, Peking University, Beijing, People's Republic of China.
- 4:12 pm–4:15 pm 123 **Survival In Mesenchymal Chondrosarcoma: 205 Cases From The Seer Database**
Lukas Nystrom, MD; Brian Andrew Schneiderman, MD; Stephanie Kliethermes, PhD; Dariusz Borys
Department of Orthopaedic Oncology Surgery, Beijing Ji Shui Tan Hospital, Loyola University Chicago
- 4:15 pm–4:25 pm **DISCUSSION**
- 4:25 pm–4:30 pm 124 **Do We Need To Remove The Biopsy Tract In Patients Undergoing Surgery Following Neo- Adjuvant Chemotherapy For Primary Bone Tumors?**
Shah Alam Khan, MS, DNB, MRCSEd, FRCS, M.Ch.Orth
All India Institute of Medical Sciences

- 4:30 pm–4:35 pm 125 **Patterns Of Local Recurrence And Metastatic Progression Following Treatment Of Bone Sarcomas**
Cara Cipriano; Anthony M. Griffin, MSc; Peter Ferguson, MD; Jay Wunder, MD
Mount Sinai Hospital, University of Toronto
- 4:35 pm–4:40 pm 126 **Ct Data Evaluation Of Proximal Femur Malignant Tumors**
Oleg Vyrva, MD
Sytenko Institute of Spine and Joint Pathology, Kharkiv, Ukraine
- 4:40 pm–4:45 pm 127 **Surgical Treatment Of Conventional Primary Central Chondrosarcoma Of Pelvic Bone: A Multicenter Study In 164 Patients**
Michael P.A. Bus; Michaël Bus, MSc; Domenico Campanacci; Jose Ignacio Albergo, MD; Andreas Leithner, MD; Michiel Van De Sande, MD, PhD; Giuseppe Caff; Jan Mettelsiefen; Rodolfo Capanna, MD; Per-Ulf Tunn; Lee M. Jeys, FRCS; Sander Dijkstra, MD
Leiden University Medical Center
- 4:45 pm–4:50 pm 128 **Ewing Sarcoma: Only Patients With 100% Of Necrosis After Adjuvant Chemotherapy Should Be Classified As Good Responders.**
Jose Ignacio Albergo, MD; Czar Louie Gaston, MD; Lee M. Jeys, FRCS; Minna Laitinen, MD; Anna Darbyshire, MBBS; Vaiyapuri P. Sumathi; Michael Christopher Parry, MB, ChB, MD, FRCS (Ortho); Simon R. Carter, MD; Roger Tillman, FRCS; Adesegun Abudu, FRCS, FRCS (Ortho), MSc; Robert John Grimer, FRCS
Royal Orthopaedic hospital, Birmingham, UK
- 4:50 pm–5:00 pm **DISCUSSION**
- 6:30 pm **CLOSING NIGHT CELEBRATION** *House of Blues Orlando*
- SATURDAY OCTOBER 10, 2015**
- 8:00 am–8:10 am **INTRODUCTION TO OSTEOSARCOMA • RICHARD M. TEREK, MD, FACS**
Moderators for Session 10:
Rex C. Haydon, MD, PhD; Steven C. Ghivizzani, PhD
- 8:10 am–8:16 am 129 **Distinct And Overlapping Genetic Changes In Osteosarcoma Across Species**
William Eward, MD, DVM; Suzanne Bartholf Dewitt, DVM; Brian E. Brigman, MD; David Kirsch, MD, PhD; Mary-Keara Boss DVM; Jason Somarelli PhD;
Duke University
- 8:16 am–8:22 am 130 **Intra-Tumoral Heterogeneity In Osteosarcoma And Its Therapeutic Implications**
Padraic P. Levings, PHD, BS; Emma Maria Viktoria Hyddmark, BS; Ali Zarezaadeh, MD; Steven Ghivizzani BS, PhD; C. Parker Gibbs Jr., MD
University of Florida
- 8:22 am–8:28 am 131 **Microscopic Tumor Emboli As One Of Important Prognostic Factors In Stage-Ii Osteosarcoma**
Piya Kiatisevi, MD; Science Metadilogkul; Worapitak Thaisitti; Akarathan Jitnuyanont; Numphung Numkarunarunrote; Bhasanan Sukanthanak; Voranuch Thanakit
Orthopaedic Oncology Service, Institute of Orthopaedics, Lerdsin General Hospital, Bangkok, Thailand
- 8:28 am–8:34 am 132 **Three-Dimensional Drug-Screening Platform For Progression Of Osteosarcoma Micrometastases Demonstrates Heterogeneous Response To Map Chemotherapy**
Christopher Collier, MD; Emily Wirtz; William Zachary Morris, MD; Patrick John Getty, MD; Edward M. Greenfield, PhD
Case Western Reserve University
- 8:35 am–8:45 am **DISCUSSION**
- 8:45 am–8:51 am 133 **Opportunities For Drug Repurposing In Osteosarcoma: A Screen Of Fda-Approved Oncology Drugs In A Micrometastatic Model Of Disease**
Christopher Collier, MD; Patrick John Getty, MD; Edward M. Greenfield, PhD
Case Western Reserve University
- 8:51 am–8:57 am 134 **Hypomethylation Of Irf1 A Poor Marker In Circulating Tumor Dna And Drives Osteosarcoma Metastasis Via Cxcl4/Nf-Kb Upregulation**
Jin Wang; Jinchang Lu
Department of Musculoskeletal Oncology, the First Affiliated Hospital of Sun Yat-Sen University, Guangzhou, Guangdong, China
- 8:57 am–9:04 am 135 **Epigenetic Reprogramming Of Osteosarcoma Tumor Initiating Cells Alters Histologic And Metastatic Phenotype**
Emma Maria Viktoria Hyddmark, BS; Padraic P. Levings; Margaret Ellen White; Ali Zarezaadeh, MD; Elham Nasri; Maria V. Guijarro, PhD; Steve Ghivizzani; C. Parker Gibbs Jr., MD
University of Florida

9:05 pm–9:15 pm DISCUSSION

9:15 am–10:00 am CAN CHEMORESISTANCE IN OSTEOSARCOMA BE OVERCOME BY DECIPHERING THE COMPLEXITIES OF ITS GENOME?
MSTS Presidential Guest Speaker • Ching C. Lau, MD, PhD

10:00 am–10:15 am DISCUSSION

10:15 am–10:45 am BREAK *Coquina Hall South*

10:45 am–10:55 am INTRODUCTION TO METASTATIC DISEASE • TIMOTHY A. DAMRON, MD
Moderators for Session 11:
Patrick P. Lin, MD; Laura Campanacci, MD

10:55 am–11:00 am 136 A Health Services Comparison Of Surgery Followed By Radiation Therapy Versus Radiation Therapy Alone For Patients With Metastatic Epidural Spinal Cord Compression
Justin E. Bird, MD; Jinhai Huo MD, PhD, MSPH; Sharon Giordano MD, PhD; Beverly A. Guadagnolo MD, PhD
The University of Texas MD Anderson Cancer Center

11:00 am–11:05 am 137 Surgical Failure And Disease Progression In A New Era Of Metastatic Skeletal Disease
Elizabeth Scott; William Eward, DVM, MD; Mitchell Robert Klement, MD; Brian E. Brigman, MD
Duke University Medical Center

11:05 am–11:10 am 138 Prognostic Factors In Breast Carcinoma Patients With Metastatic Disease In The Peripheral Skeleton
Jonathan Daniel Stevenson; Mark McNair
Robert Jones & Agnes Hunt Orthopaedic Hospital, Oswestry

11:10 am–11:15 am 139 Prognostication Of Survival In Patients Who Underwent Operative Treatment Of Metastatic Spine Disease
Nuno Rui Cools Paulino Pereira, MD, MSC; Stein Jasper Janssen, MD; Eva van Dijk; Francis J. Hornicek, MD; Marco Ferrone, MD, FRCS; Joseph Hasbrouck Schwab, MD
Massachusetts General Hospital

11:15 am–11:30 am DISCUSSION

11:30 am–11:33 am 140 Prophylactic Fixation Of Impending Pathologic Fractures: In-Hospital Cost And Complication Analysis As Compared To Acute Fracture Fixation
Nicole Kellan Behnke, MD; Thomas Niemeier, MD; Dustin Kyle Baker, BS; Reaves Monroe Crabtree Jr., BA; Brent A. Ponce, MD
The University of Alabama at Birmingham

11:33 am–11:36 am 141 Assessing Physical Function In Patients With Lower Extremity Bone Metastases
Stein Jasper Janssen, MD; Nuno Rui Cools Paulino Pereira, MD; Kevin A. Raskin, MD; Marco Ferrone, MD, FRCS; Francis J. Hornicek, MD; Joseph Hasbrouck Schwab, MD
Massachusetts General Hospital

11:36 am–11:39 am 142 Thromboembolic Disease In Metastatic Femoral Lesions: A Comparison Between Prophylactic Fixation Versus Fixation After Pathological Fracture
Arun Aneja; Jimmy Jiang MD; Anna Cohen-Rosenblum MD; Rex Haydon, MD; Terrance D. Peabody, MD; Hue H. Luu, MD
University of Chicago

11:39 am–11:42 am 143 A Simple Model To Predict Survival In Patients With Metastases Of The Long Bones: The Bollen Model
Sander Dijkstra; Julie J. Willeumier; Yvette Van Der Linden, MD, PhD; Laurens Bollen; Sander Dijkstra, MD
Leiden University Medical Center

11:42 am–12:00 pm DISCUSSION

12:00 pm–1:00 pm CLOSING CEREMONY/AWARDS

POSTERS

POSTERS ON DISPLAY

| No. | DAY | CATEGORY | TITLE | AUTHOR(S) |
|-----|-----|-----------------------|---|---|
| 1 | WED | Axial (Spine, Pelvis) | Outcome Of Pelvic/Sacral Resection And Reconstruction For Bone Tumors | Ahmad Shehadeh |
| 2 | WED | Axial (Spine, Pelvis) | Sacral Giant Cell Tumors - To Operate Or Not To Operate! | Ajay Puri, MD; Ashish Gulia; Manish Suresh Bhandare |
| 3 | WED | Axial (Spine, Pelvis) | Cervical En Block-Spondilectomy: Planning, Results And Failures (15 Cases) | Alessandro Luzzati; Marco Alloisio; Sergio Sessa; Scotto Gennaro |
| 4 | WED | Axial (Spine, Pelvis) | Internal Hemipelvectomy - Possibility Of Reconstruction In Children And Youth With Primary Malignant Bone Tumors. | Andrzej Szafranski |
| 5 | WED | Axial (Spine, Pelvis) | Chondrosarcoma Of The Pelvis: A Review Of Fifty-Six Cases Between 1990 And 2014 | Bugra Alpan; Kayahan Karayug; Ahmet Salduz; Natig Valiyev; Bilge Bilgic; Levent Eralp |
| 6 | WED | Axial (Spine, Pelvis) | How To Avoid The Metal Invasion? Non-Prosthetic Management Of Partial Acetabular Defects After Primary Malignant And Benign Aggressive Tumor Resection | Bugra Alpan; Natig Valiyev; Mustafa Sungur |
| 7 | WED | Axial (Spine, Pelvis) | Survival And Quality Of Life After Sacrectomy For Recurrent Colorectal Cancer | Chandhanarat Chandhanayingyong, MD; John H Healey, MD, FACS; Patrick J Boland, MD |
| 8 | WED | Axial (Spine, Pelvis) | Proximal Femur Epiphysiolsis And Femoral Head Necrosis After Radiotherapy In Iliac Ewing Sarcoma: Case Report | Dan Viola, MBA, MSC; Reynaldo Jesus-Garcia, MD; Marcos Korukian; Francisco Andrade |
| 9 | WED | Axial (Spine, Pelvis) | Epidemiology Of Patients With Pelvic Tumors Underwent Surgical Treatment | Dan Viola, MBA, MSC; Reynaldo Jesus-Garcia, MD; Jairo Garcia; Marcos Korukian |
| 10 | WED | Axial (Spine, Pelvis) | The Role of 3D Technology In Tumor Surgery Around Pelvis | Daniel Kotrych, MD, PHD |
| 11 | WED | Axial (Spine, Pelvis) | Pelvic Ewing Sarcoma Survival In The Setting Of Surgery With Radiation | Ernest U. Conrad III, MD; Vincent Ng, MD; Stephanie Punt, BS; Viviana Bompadre, PhD |
| 12 | WED | Axial (Spine, Pelvis) | An Augmented-Reality Based Navigation System For Pelvic Tumor Resection | Hwan Seong Cho; Park Yeong Kyoong; Han Ilkyu |
| 13 | WED | Axial (Spine, Pelvis) | What Is The Effect Of Pelvic Ring Disruption On Function And Oncological Outcome Following P1 Resection Of Primary Sarcomas? | Minna Laitinen, MD, PhD; Michael Christopher Parry, MB, ChB, MD, FRCS (Ortho); Jose Ignacio Albergo, MD; Vaiyapuri P. Sumathi; Robert John Grimer, FRCS; Lee M. Jeys, FRCS |
| 14 | WED | Axial (Spine, Pelvis) | Surgery Of Pelvic Chondrosarcomas: A Review Of 309 Cases From Three Institutions | Pietro Ruggieri, MD, PhD; Andrea Angelini, MD; Andreas Mavrogenis, MD; Ulrich Lenze; Giulia Trovarelli; Teresa Calabrò; Ruediger Von Eisenhart-Rothe, MBA, MD; Panagiotis J. Papagelopoulos, MD |
| 15 | WED | Axial (Spine, Pelvis) | Preservation Of The Gluteus Maximus Blood Flow Contributes To Reduce Postoperative Complications Following Pelvic And Sacrum Tumor Resection | Toru Akiyama, MD, PhD |
| 16 | WED | Axial (Spine, Pelvis) | Good Local Control Is Essential In The Treatment Of Non-Metastatic Pelvic Osteosarcoma: Oncological Results Of 68 Pelvic Osteosarcoma Treated With Chemotherapy And Surgical Resection In Peking University People'S Hospital | Wei Guo |
| 17 | WED | Axial (Spine, Pelvis) | A New Anterior Nasopharyngeal Approach For The Atlas Tumor Biopsy With The Endoscopy And X-Ray Assisted | Zhenfeng Li; Jianmin Li Sr, MD; Wei Guo, MD, PhD |
| 18 | WED | Axial (Spine, Pelvis) | Our Experience In The Surgical Treatment Of "Hourglass" Pelvic Tumours | Isidro Gracia, MD; Laura Trullols; Ana Peiro; Paloma Dehesa; Vicens Artigas; Jean Audrey Arroyo, BA |
| 19 | WED | Benign Bone Tumors | Radiofrequency Ablation For Chondroblastomas – The Emergence Of A New Modality Of Treatment | Ajay Puri, MD; Ashish Gulia |
| 20 | WED | Benign Bone Tumors | Surgical Treatment Of Pathological Fractures Of The Proximal Femur Through Benign Bone Lesions In Children Based On A Prospective Treatment Protocol | Bulent Erol; Mert Osman Topkar, MD |
| 21 | WED | Benign Bone Tumors | Giant Cell Tumor Of Bone: Casuistic Of One Single Institution In Brazil | Dan Viola, MBA, MSC; Reynaldo Jesus-Garcia, MD; Davi Gabriel Bellan; Marcos Korukian |
| 22 | WED | Benign Bone Tumors | Denosumab Allows Surgical Resection Of Previously Untreatable Giant Cell Tumours Of Bone | David McKenna, MA, MBBS, FRCS; Duncan Whitwell, FRCS; Tom Cosker; Henno Wolfgang Martin, MBChB; Nick Athanasou, MRCP, FRCPATH; Max Gibbons, FRCS |
| 23 | WED | Benign Bone Tumors | Does Extended Curettage For The Treatment Of Giant Cell Tumor Offer Adequate Therapeutic Profile In The Era Of Latest Adjuvant Options, And What Are The Possible Risk Factors For Local Recurrence ? | David Nikomarov, MD; Anthony M. Griffin, MSc; Prakash R. Nayak; Shanel Deo, MB, ChB, FRACS; Peter Ferguson, MD; Jay Wunder, MD |
| 24 | WED | Benign Bone Tumors | Osteochondromas Projecting Into Neurovascular Structures Can Be Safely Resected | James C. Wittig, MD; Jette Hooper; Ivan Golub; Alexander P. Decilveo |
| 25 | WED | Benign Bone Tumors | 21-Year-Old Male Presents With A Giant Periosteal Aggressive Epithelioid Osteoblastoma In The Midshaft Of His Femur | James C. Wittig, MD; Joel Peterson; Alexander P. Decilveo; Ivan Golub |
| 26 | WED | Benign Bone Tumors | Surgical Hip Dislocation: A Viable Technique For Treatment Of An Aneurysmal Bone Cyst Of The Acetabulum | David Alan Rush, MD; Jeremy Russell White, MD |
| 27 | WED | Benign Bone Tumors | Primary Aneurysmal Bone Cyst Of The Spine In Children: Outcomes Of An Updated Modern Surgical Technique | John P. Dormans, MD; Emmanouil Grigoriou, MD; Swamy Kurra, MBBS; Ashley Trocle, BS |
| 28 | WED | Benign Bone Tumors | Giant Cell Tumor Of Bone. Surgical Management Of 168 Patients At A Single Institution. | Jose Roberto Cardona Baron; Camilo Soto, MD; Luis Carlos Gómez |

| No. | DAY | CATEGORY | TITLE | AUTHOR(S) |
|-----|-----|-------------------------|---|---|
| 29 | WED | Benign Bone Tumors | Giant Cell Tumor Of Bone Treated With Minimal Access Curettage And Perioperative Bisphosphonates: A Mean Follow-Up Of 4.8 Years | Kwok Chuen Wong, FRCS (ORTHO); Shekhar Madhukar Kumta |
| 30 | WED | Benign Bone Tumors | Risk Factors For Local Recurrence After Intralesional Curettage For Giant Cell Tumors Of Bone | Michala Skovlund Sørensen; Peter Frederik Horstmann; Peter Holmberg Jørgensen; Mathias Rædkjær; Werner Hettwer, MD; Bjarne Hauge Hansen, MD; Tine Nymark; Michael M. Petersen, MD |
| 31 | WED | Benign Bone Tumors | Analysis Of Pre-Operative Administration Of Denosumab For Giant Cell Tumor Of Bone | Michiro Susa |
| 32 | WED | Benign Bone Tumors | Magnetic Resonance Imaging In Symptomatic Children With Hereditary Multiple Exostoses Of The Hip | Mihir Thacker, MD; Kenneth J. Rogers, PhD |
| 33 | WED | Benign Bone Tumors | Radiographic Analysis Of The Pediatric Hip In Hereditary Multiple Exostoses | Mihir Thacker, MD; Kenneth J. Rogers, PhD |
| 34 | WED | Benign Bone Tumors | Chondroblastoma: Mimicking Malignant Bone Tumour | Prof. Dr. Vivek Ajit Singh, MBBS, MD; Faissal Yasin |
| 35 | WED | Benign Bone Tumors | Brown Tumour Mimicking Giant Cell Tumour: Problem Of Diagnosis And Management | Prof. Dr. Vivek Ajit Singh, MBBS, MD |
| 36 | WED | Benign Bone Tumors | Giant Cell Tumor Of Bone: An Analysis Of 130 Cases. | Raja Anand; Mayil Vahanan Natarajan, MD |
| 37 | WED | Benign Bone Tumors | Treatment Of Unicameral Bone Cyst: Decompression With Cannulated Hydroxyapatite Screws And Curettage Using Endoscopic-Assisted Technique | Ryuta Iwanaga |
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| 47 | WED | Biologic Reconstruction | Allografts In Children Aged Under 10 Years Old After Resection Of Malignant Long Bone Tumors. Mid To Long-Term Follow-Up. | Alfonso Vaquero-Picado, MD; Jorge De Las Heras, MD |
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SOCIAL PROGRAMS

WEDNESDAY, OCTOBER 7

6:00pm–9:00pm

Fairways Lawn at The Ritz Carlton Golf Club

WELCOME RECEPTION

Come enjoy “The Best of Florida” at the ISOLS/MSTS Welcome Reception. Experience the beautiful Orlando landscape while tasting a Floridian inspired menu. Enjoy the sounds of “The Current” and mingle with exotic guests! Casual attire.

YOUR BADGE IS YOUR TICKET to the all meeting sessions and social events. Accompanying persons must also have a badge to participate.



THURSDAY, OCTOBER 8

6:30am–7:30am • **Primo Garden** (*Registration is located outside Cintron on the JW Marriott side*)

Registration begins at 6:00am.

FUN RUN 5K

The Fun Run 5K is the perfect early morning networking event! Join friends and colleagues for a fun early morning run. The first 100 people to register will receive a t-shirt.

ON-SITE REGISTRATION AVAILABLE

1:00pm–6:00pm • **Ritz Carlton Golf Club**

GOLF TOURNAMENT

Embark on an 18-hole course with your colleagues on the beautiful Ritz Carlton Golf Course. A certified Audubon Cooperative Sanctuary, the golf course blends into the natural Central Florida landscape. The course blends a variety of hazards to provide a challenging but fair test of a golfer's abilities.

Sign up to play at Registration located in the Mediterranean Foyer.

- Cost is \$120 per player
- Club rentals available, \$50 each
- Format: 4 man scramble
- Shotgun start at 1:00pm

FRIDAY, OCTOBER 9

7:00pm–10:00pm • **House of Blues Orlando**

CLOSING NIGHT CELEBRATION AT HOUSE OF BLUES ORLANDO

You are invited to the House of Blues for the final social event of the meeting. Come enjoy international inspired cuisine and live entertainment, and celebrate the success of a great meeting. Shuttles will begin from the Mediterranean Porte Cochere starting at 6:30pm and will be available the duration of the event. Casual attire.



ACCOMPANYING PERSONS' SOCIAL PROGRAMS



SHOPPING EXCURSIONS:

- Wednesday, October 7: Mall at Millenia Experience
 - Thursday, October 8: The Florida Mall
 - Friday, October 9: Orlando Premium Outlets–International Drive
- Please visit the Registration Desk for details and to register.*



THE RITZ CARLTON SPA IS ALSO AVAILABLE FOR ACCOMPANYING PERSON PAMPERING.

Receive a 10% discount on your spa visit!

- Call Spa Reservations (407) 393-4200
- Mention you are with **ISOLS and MSTS**

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| Aanstoos, Megan | (n) Nothing |
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| Abdulkareem, Fatimah Biade | (n) Nothing |
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| Bali, Navi | (n) Nothing |
| Baptista, Andre Mathias | (n) Nothing |
| Barrientos-Ruiz, Irene | (n) Nothing |
| Bartholf Dewitt, Suzanne | (n) Nothing |
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| Baumgart, Rainer Paul | 1 (implantcast; Wittenstein intens); 2 (implantcast; Wittenstein intens); 3B (implantcast; Wittenstein intens); 9 (Gesellschaft für Externaetenverlaengerung und -rekonstruktion) |
| Bayliss, Lee | (n) Nothing |
| Beauchamp, Christopher Paul | (n) Nothing |
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| Beebe, Kathleen S. | (n) Nothing |
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| Bekkering, W. Peter | (n) Nothing |
| Bellan, Davi Gabriel | (n) Nothing |
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| Benevenia, Joseph | 1 (Rutgers University/Creosso LLC); 2 (Musculoskeletal Transplant Foundation); 3C (Implant Cast; Merete,NJOS); 4 (Creosso LLC); 5 (Biomet; Musculoskeletal Transplant Foundation, Synthes); 8 (AAOS/OKU Tumors 2, 3, Musculoskeletal Tumor Society); 9 (AAOS, Musculoskeletal Transplant Foundation, Musculoskeletal Tumor Society) |
| Benjamin, Robert Stephen | 3B (Karyopharm Therapeutics; Norvartis); 3C (Eli Lilly); 4 (Gilead Science; Johnson & Johnson; Merck; Pfizer) |
| Berardino, Maurizio | (n) Nothing |
| Berg, John | (n) Nothing |
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| Bernstein, Mark Lawrence | 5 (Merck) |
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| Bielack, Stefan | 3B (Clinigen; Eli Lilly); 8 (Cancer treatment reviews; JAYAO); 9 (ESMO; SIOP; SIOP Europe) |
| Bilgiç, Bilge | (n) Nothing |
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| Blunn, Gordon W. | 1 (Stanmore implants); 2 (baxter,stanmore implants); 3B (stanmore implants); 4 (stanmore implants); 5 (Biomet; lima; Medacta); 7 (stanmore implant); 8 (journal of biomaterial reserach); 9 (British orthopaedic research society) |
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| Briggs, Tim | 5 (Biomet); 8 (Journal of Bone and Joint Surgery-British, Journal of Arthroplasty); 9 (British Orthopaedic Association,British Orthopaedic Oncology Society,Board member of Royal National Orthopaedic Hospital Trust) |
| Brigman, Brian E. | 2 (Musculoskeletal Transplant Foundation); 3B (Musculoskeletal Transplant Foundation; Plexicon); 5 (Lumicell Diagnostics; Musculoskeletal Transplant Foundation); 9 (Musculoskeletal Tumor Society) |
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| Cardona, Jose Roberto | (n) Nothing |
| Carey Smith, Richard Lovel | 2 (DePuy, A Johnson & Johnson Company; Smith & Nephew; Zimmer); 5 (DePuy, A Johnson & Johnson Company; Smith & Nephew); 8 (Journal of Bone and Joint Surgery - British); 9 (Plus Life (Perth Bone and Tissue Bank) |
| Carrington, Richard | 2 (Smith & Nephew) |
| Carter, Simon R. | 2 (Biomet); 3B (Biomet); 5 (Biomet) |
| Carty, Christopher P. | (n) Nothing |
| Castellucci, Paolo | (n) Nothing |
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| Catton, Charles | 2 (Abbott); 3B (Abbott); 5 (Abbott) |
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| Chan, Amanda | (n) Nothing |
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| Chan, Wai Mon Lester | (n) Nothing |
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| Charles, Peterfy | 2 (Amgen Co); 3B (Abbott; Bristol-Myers Squibb; Eli Lilly; Genzyme; Merck; Norvartis; Roche) |
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| Charoenlap, Chris | (n) Nothing |
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| Chisena, Ernest | 4 (Bio-Chem Bracing Corp.) |
| Chmielowski, Bartosz | 2 (Genentech); 3B (Amgen Co; Astellas; Lilly) |
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| Chow, Warren A. | 2 (Norvartis); 5 (MedImmune) |
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| Chung, Peter | (n) Nothing |
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| Cook, Brian | (n) Nothing |
| Cooke, Paul Hamilton | 1 (OrthoSolutions); 3B (OrthoSolutions) |
| Cool, Paul | 9 (British Orthopaedic Oncology Society) |
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| Damron, Timothy A. | 5 (Cempra, Inc; Wright Medical Technology, Inc.,Genentech, Inc.,Orthovita, Inc.; Stryker,Zetox, Inc); 6 (Stryker); 7 (Lippincott, Williams, and Wilkins; Wolters Kluwer Health - eMedicine,UpToDate); 8 (Journal of Surgical Oncology,eMedicine; World Surgical Journal); 9 (Musculoskeletal Tumor Society; American College of Surgeons; AAOS) |
| Dana, Sara | (n) Nothing |
| Darbyshire, Anna | (n) Nothing |
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| Deshayes, Stephanie | (n) Nothing |
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| DiCaprio, Matthew R. | (n) Nothing |
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| Dierselhuis, Edwin | 9 (VOCA) |
| Dietl, Hans | 1 (Otto Bock Healthcare Products GmbH); 3A (Otto Bock Healthcare Products GmbH) |
| Dijkstra, Sander | 3C (Implantcast); 9 (European Musculo-Skeletal Oncology Society (EMSOS)) |
| Dikici, Faith | 9 (turkish society of orthopedics and traumatology) |
| Dodd, Christopher A.F. | 1 (Biomet); 2 (Biomet); 3B (Biomet); 5 (Stryker, Biomet, Zimmer); 7 (Oxford University Press); 9 (Knee Society) |
| Doita, Minoru | (n) Nothing |
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| Dormans, John P. | 7 (Elsevier; Mosby; Brooke's Publishing); 8 (Journal of Pediatric Orthopedics); 9 (SICOT USA; Scoliosis Research Society; SICOT Foundation; World Orthopaedic Concern) |
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| Dowsey, Michelle Maree | 5 (DePuy, A Johnson & Johnson Company; Medacta International) |
| Dubey, Siddharth | (n) Nothing |
| Dubina, Andrew G. | (n) Nothing |
| Duchman, Kyle | (n) Nothing |
| Duerr, Hans R. | 2 (Amgen Co) |
| Dworsky, Erik | (n) Nothing |
| Eckardt, Jeffrey John | (n) Nothing |
| Edeiken-Monroe, Beth Sue | (n) Nothing |
| Eggers, John Paul | (n) Nothing |
| Ehrhart, Nicole | 2 (Allosource, Inc) |
| Eilber, Fritz C. | (n) Nothing |
| Ejadi, Samuel | (n) Nothing |
| El Beaino, Marc | (n) Nothing |
| Endo, Naoto | (n) Nothing |
| Epley, Chad Thomas | 3A (Norvartis); 4 (Norvartis) |
| Eralp, Levent | (n) Nothing |
| Erickson, Brandon | (n) Nothing |
| Erol, Bulent | (n) Nothing |
| Etchebehere, Mauricio | 8 (Acta Ortopedica Brasileira; Clinics); 9 (Sociedade Brasileira de Ortopedia e Traumatologia Regional São Paulo) |
| Etzioni, David | (n) Nothing |
| Evaniew, Nathan | (n) Nothing |
| Evans, Scott | (n) Nothing |
| Eward, Will | (n) Nothing |
| Eward, William Curtis | (n) Nothing |
| Fabgri, Nicola | (n) Nothing |

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| Fan, Hongbin | (n) Nothing |
| Fan, Qingyu | (n) Nothing |
| Fang, Xiang | (n) Nothing |
| Farfalli, German Luis | (n) Nothing |
| Fayad, Laura | 5 (GE Healthcare; Siemens Healthcare) |
| Federman, Noah | (n) Nothing |
| Femino, J. Dominic | (n) Nothing |
| Feng, Yu | (n) Nothing |
| Ferguson, Peter | (n) Nothing |
| Ferracini, Riccardo | (n) Nothing |
| Ferrer, Jorge | 3A (Lumicell); 4 (Lumicell) |
| Ferrone, Marco | (n) Nothing |
| Ferrone, Soldano | (n) Nothing |
| Filippi, Renee Zon | (n) Nothing |
| Fillingham, Marta | (n) Nothing |
| Fong, Benjamin Sin Tak | (n) Nothing |
| Fong, Yi-Chin | (n) Nothing |
| Forsberg, Jonathan A. | 3B (Clementia Pharmaceuticals, Inc.); 5 (Biomet) |
| Friedrich, Max | (n) Nothing |
| Frisoni, Tommaso | (n) Nothing |
| Fritz, Jan | 2 (Siemens AG); 3C (Siemens AG); 5 (Siemens AG) |
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| Fu, Jun | (n) Nothing |
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| Funovics, Philipp Theodor | (n) Nothing |
| Gabriele, Rocio | (n) Nothing |
| Gao, Yubo | (n) Nothing |
| García Jiménez, Antonio | (n) Nothing |
| Gardner, Jerad | 4 (GlaxoSmithKline; Johnson & Johnson); 8 (Archives of Pathology and Laboratory Medicine; Annals of Pathology and Laboratory Medicine; Head and Neck Pathology); 9 (American Society of Dermatopathology; Arkansas Dermatological Society; United States and Canadian Academy of Pathology) |
| Garg, Shubham | (n) Nothing |
| Garg, Sudhir | (n) Nothing |
| Gasbarrini, Alessandro | (n) Nothing |
| Gaston, Czar Louie | (n) Nothing |
| Gebhardt, Mark C. | 7 (Clinical Orthopaedics and Related Research; Up to Date); 8 (Clinical Orthopaedics and Related Research); 9 (International Society of Limb Salvage; Massachusetts Orthopaedic Association; New England Orthopaedic Society) |
| Geller, David Samuel | 9 (AAOS) |
| Gerbers, Jasper | (n) Nothing |
| Gerger, Armin | (n) Nothing |
| Getty, Patrick John | 6 (Musculoskeletal Transplant Foundation); 9 (American Board of Orthopaedic Surgery, Inc.) |
| Gherlinzoni, Franco | (n) Nothing |
| Ghert, Michelle A. | 3B (Wright Medical Technology, Inc.); 8 (Bone and Joint Research); 9 (Musculoskeletal Tumor Society; Orthopaedic Research Society) |
| Ghivizzani, Steven | (n) Nothing |
| Ghosh, Mithua | (n) Nothing |
| Gibbons, Max | 3B (Biomet); 3C (Biomet) |
| Gibbons, Maxime | 9 (British Orthopaedic Oncology Society) |
| Gibbs, C. Parker | 3B (Exactech, Inc); 8 (Journal of Bone and Joint Surgery - American; Orthopedics); 9 (American Orthopaedic Association; Musculoskeletal Tumor Society) |
| Giele, Henk | 7 (Journal of Hand Surgery - British ,Oxford university press) |
| Gilg, Magdalena Maria | (n) Nothing |
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| Gilotra, Mohit | (n) Nothing |
| Giordano, Alessandra | (n) Nothing |
| Giordano, Sharon | 8 (Cancer, Journal of Clinical Oncology); 9 (American Society of Clinical Oncology) |
| Gitelis, Steven | 3B (Stryker; Wright Medical Technology, Inc.); 4 (Wright Medical Technology, Inc.) |
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| Goodman, Mark A. | (n) Nothing |
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| Gopalakrishnan, Vancheswaran | (n) Nothing |
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| Graziani, Tiziano | (n) Nothing |
| Greenberg, David Daniel | 9 (Musculoskeletal Tumor Society) |
| Greenfield, Edward M. | 8 (Journal of Biological Chemistry; Journal of Orthopaedic Research) |
| Gregory, Jonathan James | (n) Nothing |
| Griffin, Anthony M. | (n) Nothing |
| Grignani, Giovanni | 2 (Norvartis); 5 (PharaMar, Bayer, Novartis) |
| Grigoriou, Emmanouil | (n) Nothing |
| Grimer, Robert John | 5 (Amgen Co); 8 (Sarcoma) |
| Grimsrud, Courtney M. | (n) Nothing |
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| Gutowski, Christina J. | (n) Nothing |
| Hackbarth, Donald A. | 6 (Musculoskeletal Transplant Foundation (Serve on Board of Directors of MTF)) |
| Hackney, Lauren Allyson | (n) Nothing |
| Hagmann, Michael | (n) Nothing |
| Haldar, Anil | (n) Nothing |
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| Hamdy, Neveen Agnes Therese | 5 (Amgen Co) |
| Han, Ilkyu | 9 (Connective Tissue Oncology Society) |
| Hanselman, Andrew | (n) Nothing |
| Hansen, Bjarne Hauge | (n) Nothing |
| Hanssen, Arlen D. | 1 (Stryker); 5 (Stryker); 7 (Elsevier); 9 (International Congress for Joint Reconstruction (ICJR)) |
| Hardes, Jendrik | (n) Nothing |
| Harimaya, Katsumi | (n) Nothing |
| Harrington, Daniel A. | 4 (Polyvascular) |
| Hartley, Katherine G. | (n) Nothing |
| Harveldt, Stefan | (n) Nothing |
| Harwood, Jared L. | (n) Nothing |

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| Hasan, Syed Ashfaq | 9 (AAOS) |
| Hasegawa, Hiroaki | (n) Nothing |
| Hasenoehrl, Timothy | (n) Nothing |
| Haskoor, John | (n) Nothing |
| Haupt, Edward | (n) Nothing |
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| Hayden, James B. | 1 (Biomet); 9 (AAOS) |
| Haydon, James B. | 8 (Current Orthopaedic Practice); 9 (American Orthopaedic Association) |
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| Healey, John H. | 3B (Daiichi-Sankyo); 3C (Illuminoss); 7 (Clinical Orthopaedics and Related Research); 8 (Clinical Orthopaedics and Related Research; Journal of Orthopaedic Science); 9 (Association of Bone and Joint Surgeons; Musculoskeletal Tumor Society; Orthopaedic Research Society; Orthopaedic Research and Education Foundation; Musculoskeletal Transplant Foundation ; AAOS) |
| Hellman, Michael David | (n) Nothing |
| Henrichs, Marcel-Philipp | (n) Nothing |
| Henshaw, Robert Mikael | 5 (Amgen Co; Novartis); 9 (Member, Sarcoma Education Committee American Society of Clinical Oncology, Board member, Mattie Miracle Cancer Foundation; Musculoskeletal Tumor Society) |
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| Herschbach, Peter | (n) Nothing |
| Hettwer, Werner | (n) Nothing |
| Hickok, Noreen J. | 3B (AstraZeneca/MedImmune); 4 (Pfizer); 5 (Synergy Medical; Zimmer) |
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| Hish, Alexander | (n) Nothing |
| Hiz, Murat | (n) Nothing |
| Ho, Kenneth | (n) Nothing |
| Ho, Shuchien | (n) Nothing |
| Hoang, Bang H. | 8 (Sarcoma, Clinics in Orthopaedic Surgery); 9 (Musculoskeletal Tumor Society) |
| Hoang, Kevin | (n) Nothing |
| Hobusch, Gerhard Martin | (n) Nothing |
| Hofer, Christian | 3A (Otto Bock Healthcare Products GmbH) |
| Hogendoorn, Pancras C.W. | (n) Nothing |
| Holt, Ginger E. | 9 (American Orthopaedic Association; Musculoskeletal Tumor Society) |
| Hongsaprabhas, Chindanai | (n) Nothing |
| Hopper, Jette | (n) Nothing |
| Hopyan, Sevan | 9 (Pediatric Orthopaedic Society of North America) |
| Hornicek, Francis J. | 3B (BioMedValley Discoveries; Stryker); 5 (Stryker); 6 (Biomet); 7 (Amrysis; McGraw Hill; UpToDate; Wiley); 8 (Journal of Orthopedic Surgery; Journal Surgical Oncology); 9 (American Association of Tissue Banks; FDA; ISOLS) |
| Horstmann, Peter Frederik | (n) Nothing |
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| Huang, Gang | (n) Nothing |
| Huang, Lin | (n) Nothing |
| Huo, Jinhai | (n) Nothing |
| Hushmendy, Shazaan | (n) Nothing |
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| Iwata, Shintaro | (n) Nothing |
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| Jamieson, Christina | 5 (AMBRX) |
| Jang, Woo Young | (n) Nothing |
| Janssen, Stein Jasper | (n) Nothing |
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| Jeray, Kyle James | 3B (Zimmer); 5 (Synthes); 8 (Journal of Bone and Joint Surgery - American; Journal of Orthopaedic Trauma); 9 (American Orthopaedic Association; Orthopaedic Trauma Association; Southeastern Fracture Consortium) |
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| Jindal, Rohit | (n) Nothing |
| Jitnuyanont, Akarathan | (n) Nothing |
| Jones, Kevin Bruce | 7 (My wife is the managing member of a small publisher, Tallow Book LLC, which publishes one book related to medical uncertainty.) |
| Jones, Robin Lewis | 3A (Seattle Genetics); 4 (Wife: Seattle Genetics) |
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| Joyce, David | (n) Nothing |
| Jung, Sung-Taek | (n) Nothing |
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| Karnes, Jonathan | 5 (Amnio Medical, Inc) |
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| Shin, Alexander Yong Shik | 1 (Trimed); 8 (Techniques in Hand and Upper Extremity Surgery) |
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| Shuler, Franklin David | 3B (Lilly) |
| Sierra, Rafael Jose | 1 (Biomet); 2 (Biomet); 3B (Biomet); 5 (DePuy, A Johnson & Johnson Company; Zimmer; Stryker, Biomet); 8 (Journal of Arthroplasty); 9 (Midamerica orthopedic society, Maurice Mueller Foundation.; American Association of Hip and Knee Surgeons) |
| Silverstein, Eric Alan | (n) Nothing |
| Sim, Franklin H. | 7 (Saunders/Mosby-Elsevier) |
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| Skubitz, Keith | 4 (investments directed by financial manager and may own various pharmaceutical stocks from time to time); 5 (Amgen Co; GlaxoSmithKline) |
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| | |
|------------------------------|---|
| Weiss, Kurt Richard | 3C (I am on the scientific advisory board of Eleison pharmaceuticals. I have received exactly \$0.00 thus far from this position.) |
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| Yaszemski, Michael J. | 3B (K2M, Inc.; Medtronic); 8 (Journal of Biomedical Materials Research-J. Wiley, Inc.; Techniques in Orthopedics); 9 (AAOS; Society of Military Orthopaedic Surgeons) |
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KEY

- | | |
|--|--|
| Item (1). Royalties from a company or supplier | Item (5). Research support from a company or supplier as a PI |
| Item (2). Speakers bureau/paid presentations for a company or supplier | Item (4). Stock or stock options in a company or supplier |
| Item (3A). Paid Employee for a company or supplier | Item (8). Medical/Orthopaedic publications editorial/governing board |
| Item (3B). Paid consultant for a company or supplier | Item (6). Other financial or material support from a company or supplier |
| Item (3C). Unpaid consultant for a company or supplier | Item (9). Board member/committee appointments for a society |
| Item (7). Royalties, financial or material support from publishers | |

OREF/MSTS CLINICAL RESEARCH GRANT IN ORTHOPAEDIC ONCOLOGY

Funding

\$98,000 grant over 1-2 years.

Grant Description

Musculoskeletal Tumor Society (MSTS) in collaboration with the Orthopaedic Research and Education Foundation (OREF) is offering grants to clinician researchers focused on clinical topics in orthopaedic oncology.

Criteria

1. Prospective clinical study involving multi-center collaboration.
2. Established infrastructure in place.
3. MSTS clinical research priorities focus on randomized trials.

Applications and more information are available on the MSTS website.

**GRANT DEADLINE:
JANUARY 15, 2016**



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MSTS and OREF would like to thank the following donors:

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SAVE THE DATE

19th General Meeting 2017 Kanazawa, Japan

Katsuro Tomita, MD, PhD
Hiroyuki Tsuchiya, MD, PhD



Invitation to the General Assembly

Date: Saturday, October 10, from 7-8 am
Place: Coquina North, at JW Marriott Orlando
Grande Lakes 4040 Central Florida Parkway, Orlando, FL 32837

BYLAWS

1: Name, domicile and scope of activities

- 1) The name of the Association shall be "INTERNATIONAL SOCIETY OF LIMB SALVAGE".
- 2) The association shall locate its headquarters at Vienna. It is domiciled in Vienna and has worldwide activities.

2: Purpose

- 1) The association is a non-profit organization. The purpose of the Association is to promote research, education and clinical practice related to musculoskeletal tumors and its foremost purpose is to improve patient care related to limb salvage interventions. It also serves as a forum for intellectual exchange among physicians, engineers, scientists and other persons interested in limb salvage, promotes advances in the field of limb salvage and ongoing education of persons engaged in the field of limb salvage.

3: Means for achieving the purpose of the Association

- 1) The purpose of the Association is to be achieved by both the intangible and tangible means as specified in paragraphs 2 and 3.
- 2) Intangible means are obtained by:
 - a) organizing symposiums or conventions of scientists from different countries and of multiple disciplines;
 - b) publishing scientific papers in a number of media;
 - c) creating and maintaining a web site;
 - d) promoting cooperation among persons interested in limb salvage and promoting exchange of information among them;
 - e) prompting relationships with related fields of medicine and other professional and scientific associations;
 - f) producing guidelines.
- 3) The tangible means shall be raised through
 - a) registration fees and membership dues;
 - b) incidental profits resulting from organizing scientific conventions and other events and undertakings of the association itself;
 - c) grants awarded to the association by manufacturing industries or other entities;
 - d) donations, fund raising drives, bequests and other contributions to the association.

4: Categories of membership

- 1) There shall be two membership classifications as set forth below.
- 2) Regular members are assigned all membership rights and duties.
- 3) Honorary members are awarded this status based on a history of significant contributions to the field of musculoskeletal oncology. BYLAWS OF THE ASSOCIATION INTERNATIONAL SOCIETY OF LIMB SALVAGE

5: Becoming a member

- 1) Medical doctors, researchers, engineers and other persons with medically related qualifications, knowledge and expertise in musculoskeletal tumors and limb salvage techniques can apply for regular membership. The Board shall decide on admission of members. The application for regular membership is to be addressed to the Membership Chair of the Association and shall be accompanied by letters of recommendation from two regular members of the association. Admission may be refused without giving reason.
- 2) Honorary members are endorsed by the Membership Chair and the Board upon recommendation by the President, a member of the Board or a member of the society.

AGENDA

1. Welcome and determination of a quorum (Windhager)
2. Approval of the Agenda (Windhager)
3. Report of the President (Windhager)
4. Report of the Secretary (Letson)
5. Report of the Treasurer (Funovics)
6. Approval of the annual account
7. Discharge of the Treasurer and the Board
8. Election of the Board for the Period 2016/2017
9. Report of the Membership Chair (Ruggieri)
 - Approval of new membership Applications
10. ISOLS Meeting 2017 (Tsuchiya)
11. ISOLS Meeting 2019
12. Miscellaneous

Reinhard Windhager, MD, PhD
President

G. Douglas Letson, MD
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MSTS ANNUAL MEETING 2016
DETROIT ✦ **OCTOBER 5-7**
MARRIOTT *at the* RENAISSANCE

**SAVE
the
DATE!**

Join over 300 national and international leaders in orthopedic oncology ✦ More than 200 poster and technical exhibits ✦ 2 days of scientific sessions and business meetings ✦ In-depth Allied Health Session ✦ Celebrate Detroit and the spirit of science and innovation ✦ The Annual MSTS Gala held at the stunning, world-renowned Henry Ford Museum.

For information on current or future MSTS Meetings, please contact Rachel Rusch, rusch@aaos.org



NOTES



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