

2015 CTOS Annual Meeting



November 4 - 7

The Grand America Hotel, Salt Lake City, Utah



Connective Tissue Oncology Society

2015 CTOS President: Paolo Dei Tos, MD

Program Chairs: R. Lor Randall, MD, FACS & Matt van de Rijn, MD, PhD



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Program at a Glance

Wednesday, November 4

12:00 pm – 5:00 pm	Poster Session Set Up	<i>Grand Ballroom A & D</i>
12:00 pm – 6:00 pm	Registration	<i>Grand Ballroom Foyer</i>
3:00 pm – 5:00 pm	Sunset Hike to the 'Living Room'	<i>Meet in Grand America Lobby</i>
6:00 pm – 7:00 pm	Welcome Reception	<i>Grand Salon</i>

Thursday, November 5

6:30 am – 6:00 pm	Registration	<i>Grand Ballroom Foyer</i>
7:00 am – 8:00 am	Continental Breakfast & Poster Viewing	<i>Grand Ballroom A & D</i>
8:00 am – 11:45 am	SARC MEETING	<i>Grand Ballroom B & C</i>

(REMINDER: The SARC meeting is open to all attendees of CTOS)

Chawla/Rosenfeld Developmental Therapeutics Symposium

Overview

David Kirsch & Robert Maki

"Implications of SDH Loss in the Development of GIST"

Paul Meltzer

"The Role of PRC2 Components in the Development of Malignant Peripheral Nerve Sheath Tumors"

Ping Chi

"The BAF Complex in Synovial and Other Sarcomas"

Cigall Kadoch

"LSD: The Epigenetic Landscape of Ewings Sarcoma"

Steve Lessnick

Discussion/ Q & A

Genomic Portal

Demonstration of the SARC Genomic Data Portal

Chand Khanna

SARC Bio Specimen Bank Presentation

David Kirsch

SARC Career Development

Presentations by Career Development Recipients

Richard Gorlick & Lee Helman, Co-Chairs and Awardees

SARC Clinical Trials Overview

Review SARC Ongoing Clinical Trial

Moderator: **Scott Okuno** Presenters: **Study Principal Investigators**

11:45 am – 12:45 pm	Lunch	<i>Imperial Ballroom B - D</i>
12:45 pm – 1:10 pm	Welcome – Opening Remarks	<i>Grand Ballroom B & C</i>
1:10 pm – 1:30 pm	DR. HERMAN SUIT'S SARCOMA LEGACY: CTOS, 20 YEARS and BEYOND: Herman Suit	
1:30 pm – 3:00 pm	SESSION 1: Sarcoma of the Year: Angiosarcoma & Hemangioendothelioma	
3:00 pm – 3:30 pm	Refreshment Break / View Posters	<i>Grand Ballroom A & D</i>
3:30 pm – 5:00 pm	SYMPOSIUM 1: Models for and Approaches to the Study of Sarcomas	<i>Grand Ballroom B & C</i>
5:00 pm – 6:00 pm	SESSION 2: Synovial Sarcoma	
6:00 pm – 6:30 pm	SESSION 3: Chondrosarcoma	
6:30 pm – 7:00 pm	POSTER SESSION 1	<i>Grand Ballroom A & D</i>

Program at a Glance, continued

Friday, November 6

6:30 am – 6:00 pm	Registration	<i>Grand Ballroom Foyer</i>
7:00 am – 8:00 am	Continental Breakfast & Poster Viewing	<i>Grand Ballroom A & D</i>
7:00 am – 8:00 am	Executive Committee Meeting	<i>Venezia</i>
8:00 am – 9:00 am	SYMPOSIUM 2: Genetic Risk	<i>Grand Ballroom B & C</i>
9:00 am – 10:30 am	SESSION 4: Sarcomas with Complex Genetic Changes	
10:30 am – 11:00 am	Refreshment Break / View Posters	<i>Grand Ballroom A & D</i>
11:00 am – 12:00 pm	NINA AXELRAD LECTURE: Soft Tissue Sarcomas: Where Are We Now? Christopher D.M. Fletcher , Brigham & Women's Hospital	<i>Grand Ballroom B & C</i>
12:00 pm – 1:00 pm	Lunch	<i>Imperial Ballroom B - D</i>
12:00 pm – 1:00 pm	Board of Directors Meeting	<i>Venezia</i>
1:00 pm – 2:30 pm	SESSION 5: Osteosarcoma	<i>Grand Ballroom B & C</i>
2:30 pm – 3:00 pm	Refreshment Break / View Posters	<i>Grand Ballroom A & D</i>
3:00 pm – 3:30 pm	THE LIDDY SHRIVER INITIATIVE: More than a Decade of Support	<i>Grand Ballroom B & C</i>
3:30 pm – 4:30 pm	SPECIAL SESSION: Circulating Tumor DNA (ctDNA)	
4:30 pm – 5:30 pm	SESSION 6: GIST	
5:30 pm – 6:30 pm	POSTER SESSION 2	<i>Grand Ballroom A & D</i>
7:00 pm – 10:00 pm	Gala Reception and Dinner	<i>Natural History Museum of Utah</i>

Saturday, November 7

6:15 am – 8:00 am	Shoreline Trail Run	<i>Meet in Grand America Lobby</i>
6:30 am – 7:30 am	Early Morning Fun Run	<i>Meet in Grand America Lobby</i>
7:00 am – 8:00 am	Continental Breakfast & Poster Viewing	<i>Grand Ballroom A & D</i>
7:00 am – 5:00 pm	Registration	<i>Grand Ballroom Foyer</i>
8:30 am – 10:00 am	SYMPOSIUM 3: Adolescent & Young Adult Sarcoma	<i>Grand Ballroom B & C</i>
10:00 am – 10:30 am	Refreshment Break / View Posters	<i>Grand Ballroom A & D</i>
10:30 am – 11:00 am	YOUNG INVESTIGATOR AWARD WINNERS	
11:00 am – 12:00 pm	HERMAN SUIT LECTURE: Julia A. Bridge , Nebraska Medical Center	<i>Grand Ballroom B & C</i>
12:00 pm – 1:00 pm	Lunch	<i>Imperial Ballroom B - D</i>
1:00 pm – 1:30 pm	SESSION 7: Sarcomas with Simple Genetic Changes	<i>Grand Ballroom B & C</i>
1:30 pm – 2:30 pm	SESSION 8: Ewing Sarcoma	
2:30 pm – 3:00 pm	Refreshment Break / View Posters	<i>Grand Ballroom A & D</i>
3:00 pm – 4:00 pm	SESSION 9: Borderline Lesions	<i>Grand Ballroom B & C</i>
4:00 pm – 5:00 pm	CTOS Members' Business Meeting	<i>Grand Ballroom B & C</i>
5:00 pm	ADJOURN	

Meeting Registration

The CTOS Registration Desk is located in *Grand Ballroom Foyer*.

Registration Hours

Wednesday, November 4	12:00 pm – 6:00 pm
Thursday – Friday, November 5-6	6:30 am – 6:00 pm
Saturday, November 7	7:00 am – 5:00 pm

Onsite Registration Fees

Members	\$600
Nonmembers	\$900
Fellows / Residents	\$400
Allied Healthcare Professionals	\$400
Guest at Gala Dinner	\$100

Registration fees include scientific program materials, receptions, breaks, breakfasts, lunches, and Friday Gala dinner.

*To receive discounted fees, a letter confirming residency, fellowship, or student status must be emailed to Barbara Rapp at ctos@ctos.org or provided onsite at the meeting. If no proof is received, the difference of the full non-member rate will be applied to the registration transaction.



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Wednesday, November 4

12:00 pm – 5:00 pm	Poster Session Set Up	<i>Grand Ballroom A & D</i>
12:00 pm – 6:00 pm	Registration	<i>Grand Ballroom Foyer</i>
6:00 pm – 7:00 pm	Welcome Reception	<i>Grand Salon</i>

Thursday, November 5

6:30 am – 6:00 pm	Registration	<i>Grand Ballroom Foyer</i>
7:00 am – 8:00 am	Continental Breakfast & Poster Viewing	<i>Grand Ballroom A & D</i>
8:00 am – 11:45 am	SARC	<i>Grand Ballroom B & C</i>
11:45 am – 12:45 pm	Lunch	<i>Imperial Ballroom B - D</i>
12:45 pm – 1:10 pm	Welcome – Opening Remarks	<i>Grand Ballroom B & C</i>

1:10 pm – 1:30 pm
Grand Ballroom B & C

**Dr. Herman Suit's Sarcoma Legacy:
CTOS, 20 Years and Beyond**

Herman Suit

Moderators: Paolo Dei Tos and R. Lor Randall

1:30 pm – 3:00 pm
Grand Ballroom B & C

**Session 1: Sarcoma of the Year:
Angiosarcoma & Hemangioendothelioma**

Moderators: Paolo Dei Tos and Alex Gronchi

Paper 001 2338056

**THERAPEUTIC IMPLICATIONS OF TAZ(WWTR1)-CAMTA1 FUSION-MEDIATED
SIGNAL TRANSDUCTION IN EPITHELIOID HEMANGIOENDOTHELIOMA**

*Shuang Ma*¹; *Munir Tanas*²; *Brian Rubin*¹

¹Cleveland Clinic, Cleveland, OH, USA; ²University of Iowa, Iowa City, IA, USA

- Paper 002 2334135 **A PHASE 1B DOSE-ESCALATION STUDY OF TRC105 (ANTI-ENDOGLIN ANTIBODY) IN COMBINATION WITH PAZOPANIB IN PATIENTS WITH ADVANCED SOFT TISSUE SARCOMA (STS)**
Steven Attia¹; Richard F. Riedel²; Steven I. Robinson³; Robert M. Conry⁴; Kamalesh Sankhala⁵; Ben K. Seon⁶; Delia Alvarez⁷; Bonne J. Adams⁷; Charles Theuer⁷; Robert G. Maki⁸
¹Mayo Clinic, Jacksonville, FL, USA; ²Duke University Medical Center, Durham, NC, USA; ³Mayo Clinic, Rochester, MN, USA; ⁴The University of Alabama at Birmingham, Birmingham, AL, USA; ⁵Sarcoma Oncology Center, Santa Monica, CA, USA; ⁶Roswell Park Cancer Institute, Buffalo, NY, USA; ⁷TRACON Pharmaceuticals, San Diego, CA, USA; ⁸Icahn School of Medicine at Mount Sinai, New York, NY, USA
- Paper 003 2332184 **PRIMARY BREAST SARCOMA: A RETROSPECTIVE STUDY OVER 36 YEARS FROM A SINGLE INSTITUTION**
Maibritt P. Holm¹; Ninna Aggerholm-Pedersen¹; Marco Mele²; Peter Holmberg Jørgensen⁴; Steen Baerentzen³; Akmal Safwat¹
¹Department of Oncology, Aarhus University Hospital, Aarhus, Denmark; ²Department of Breast and Endocrinal Surgery, Aarhus University Hospital, Aarhus, Denmark; ³Department of Pathology, Aarhus University Hospital, Aarhus, Denmark; ⁴Orthopedical Surgery, Aarhus University Hospital, Aarhus, Denmark
- Paper 004 2314780 **CUTANEOUS RADIATION (RT)-ASSOCIATED BREAST ANGIOSARCOMA (AS): RADICALITY OF SURGERY IMPACTS SURVIVAL**
George Li, MD¹; Mark Fairweather¹; Jiping Wang²; Dennis Orgill³; Monica Bertagnoli²; Chandrajit Raut²
¹Department of Surgery, Division of Surgical Oncology, Brigham and Women's Hospital and Dana-Farber Cancer Institute, Boston, MA, USA; ²Center for Sarcoma and Bone Oncology, Dana-Farber Cancer Institute, Boston, MA, USA; ³Department of Surgery, Division of Plastic Surgery, Brigham and Women's Hospital, Boston, MA, USA
- Paper 005 2339906 **METASTATIC POTENTIAL OF LOW AND INTERMEDIATE GRADE PRIMARY ANGIOSARCOMAS OF THE BREAST: IMPLICATIONS FOR NEOADJUVANT AND ADJUVANT THERAPY**
Vinod Ravi, MD; Wei-Lien Wang; Alexander J. Lazar; Shreyaskumar Patel; Robert S. Benjamin
MD Anderson Cancer Center, Houston, TX, USA
- Paper 006 2330486 **A REVIEW OF 22 CASES OF PRIMARY MEDIASTINAL ANGIOSARCOMA: HEART, PERICARDIAL AND GREAT VESSELS DISEASE**
Seyoung Seo¹; JeongEun Kim¹; Sung-Min Ahn²; Jin-Hee Ahn¹
¹Oncology, Asan Medical Center, Seoul, Korea (the Republic of); ²Oncology, Biomedical Informatics, Asan Medical Center, Seoul, Korea (the Republic of)
- Paper 007 2336000 **RETROSPECTIVE ANALYSIS ON SIROLIMUS IN ADVANCED EPITHELIOID HEMANGIOENDOTHELIOMA**
Silvia Stacchiotti, MD¹; Salvatore Provenzano¹; Elena Palassini¹; Michela Libertini¹; Rossella Bertulli¹; Umberto Basso²; Antonella Brunello²; Carlo Morosi³; Antonella Messina³; Flavio Crippa⁴; Gianpaolo Dagrada⁵; Alessandro Gronchi⁶; Angelo P. Dei Tos⁷; Silvana Pilotti⁵; Paolo G. Casali¹
¹Cancer Medicine, Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy; ²Medical Oncology Unit 1, Department of Clinical and Experimental Oncology, Istituto Oncologico Veneto IOV IRCCS, Padova, Italy; ³Department of Radiology, Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy; ⁴Department of Nuclear Medicine, Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy; ⁵Department of Diagnostic Pathology and Laboratory Medicine, Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy; ⁶Department of Surgery, Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy; ⁷Department of Pathology, Regional Hospital, Treviso, Italy

3:00 pm – 3:30 pm

Break

Grand Ballroom A & D

3:30 pm – 5:00 pm

Grand Ballroom B & C

Symposium 1: Models for and Approaches to the Study of Sarcoma

Moderators: Kevin B. Jones and Kurt R. Weiss

Evaluation of Patient-Derived and Long-Passaged Cell Lines and Xenografts for the Study of Sarcoma

Raphael E. Pollock, MD, PhD, Professor of Surgery and Director of Surgical Oncology at The Ohio State University

Evaluation of Genetically-engineered Models of Sarcoma

David G. Kirsch, MD, PhD, Professor of Radiation Oncology and Cancer Biology at Duke University

Evaluation of Genomics/Sequencing of Patient Samples for the Study of Sarcoma

Matt van de Rijn, MD, PhD, Professor of Pathology at Stanford University

Evaluation of Clinical Trials as an Approach to the Study of Sarcoma

Torsten O. Nielsen, MD, PhD, Professor of Pathology and Laboratory Medicine at the University of British Columbia

Panel Discussion of Future Directions in Models for and Approaches to the Study of Sarcoma

Raphael E. Pollock, MD, PhD, David G. Kirsch, MD, PhD, Matt van de Rijn, MD, PhD, and Torsten O. Nielsen, MD, PhD

5:00 pm – 6:00 pm

Grand Ballroom B & C

Session 2: Synovial Sarcoma

Moderators: Torsten Nielsen and Doug Hawkins

Paper 008 2335179

THE GENOMIC LANDSCAPE ENABLING SYNOVIAL SARCOMAGENESIS

Kevin B. Jones, MD¹; Jared Barrott ¹; Mingchao Xie²; Huifeng Jin¹; Kyllie Smith-Fry¹; Li Ding²; Mario R. Capecchi³

¹Department of Orthopaedics and Huntsman Cancer Institute, University of Utah, Salt Lake City, UT, USA; ²McDonnell Genome Institute, Washington University, St. Louis, MO, USA;

³Department of Human Genetics, University of Utah, Salt Lake City, UT, USA

Paper 009 2308988

TARGETING THE CCND1-PATHWAY IN SYNOVIAL SARCOMA

Myrella Venterie¹; Esther Schaars¹; Melissa Hillebrandt-Roeffen¹; Uta Flucke²; Winette Van der Graaf¹; Yvonne Versleijen-Jonkers¹

¹Medical Oncology, Radboudumc Nijmegen, Nijmegen, Netherlands;

²Pathology, Radboudumc, Nijmegen, Netherlands

Paper 010 2332444

ADOPTIVE CELLULAR THERAPY WITH AUTOLOGOUS LYMPHOCYTES GENETICALLY MODIFIED TO EXPRESS AN NY-ESO-1 SPECIFIC T-CELL RECEPTOR AND DENDRITIC CELL VACCINATION WITH OR WITHOUT IPILIMUMAB IN PATIENTS WITH ADVANCED SARCOMAS AND MELANOMA

Arun Singh, MD¹; Bartosz Chmielowski¹; Beata Berent-Maoz¹; Begonya Comin-Anduix¹; Siwen Hu-Lieskovan¹; Noah Federman¹; Paula Kaplan-Lefko¹; Rong Rong Huang²; Elizabeth Seja¹; Thinle Chodon³; Richard Koya³; Fritz Eilber⁴; John Glaspy¹; Antoni Ribas¹

¹Division of Hematology-Oncology, UCLA, Santa Monica, CA, USA; ²Pathology, UCLA, Los Angeles, CA, USA; ³Roswell Park Cancer Institute, Buffalo, NY, USA;

⁴Surgical Oncology, UCLA, Los Angeles, CA, USA

Paper 011 2339886 **DISCOVERING NOVEL SMALL MOLECULES FOR TREATING SYNOVIAL SARCOMA**
*Patrick A. Holt¹; Daniel M. Lerman¹; Matthew G. Cable¹; John Trent²; Kevin B. Jones¹;
R. Lor Randall, MD¹
¹Orthopaedic Surgery, The University of Utah, Salt Lake City, UT, USA;
²Biochemistry and Molecular Biology, The University of Louisville, Louisville, KY, USA*

6:00 pm – 6:30 pm **Session 3: Chondrosarcoma**
Grand Ballroom B & C Moderator: Michelle Ghert

Paper 012 2326649 **VECTORIZATION OF HYPOXIA ACTIVATED PRODRUGS TO CHONDROSARCOMA PROTEOGLYCAN: EVALUATION AND CHARACTERIZATION OF ANTITUMORAL ACTIVITY**
*Malika Gantier¹; Aurélien Voissière²; Valérie Weber²; Romain Guiho¹; Rachel Lanel¹;
Kevin Bîteau¹; Dominique Heymann¹; Jean-Michel Cheza²; Elisabeth Miot-Noirault²;
Caroline Peyrode²; **Françoise Rédini¹**
¹INSERM UMR957, Nantes, France; ²Inserm UMR990, Clermont-Ferrand, France*

Paper 013 2325221 **A MODEL FOR INTERNATIONAL, MULTI-INSTITUTIONAL, MULTI-DISCIPLINARY SARCOMA VIDEOCONFERENCING**
***Steven Attia¹**; Robert G. Maki²; Robin L. Jones³; Jonathan C. Trent⁴; Scott H. Okuno⁵;
Daniel J. Indelicato⁶; Steven I. Robinson⁵; Karen Fritchie⁵; Sanjay P. Bagaria¹;
Nicholas P. Webber⁷; Stephanie Koplín⁷; Cherise Cortese¹; Courtney Sherman¹;
Darya Buehler⁸; Kevin R. Kozak⁹
¹Mayo Clinic Florida, Jacksonville, FL, USA; ²Mt Sinai School of Medicine, New York, NY, USA; ³Royal Marsden Hospital, London, United Kingdom; ⁴University of Miami, Miami, FL, USA; ⁵Mayo Clinic, Rochester, MN, USA; ⁶University of Florida Proton Therapy Institute, Jacksonville, FL, USA; ⁷Aurora Healthcare, Milwaukee, WI, USA; ⁸University of Wisconsin, Madison, WI, USA; ⁹Mercy Regional Cancer Center, Janesville, WI, USA*

Paper 014 2329247 **VALIDATION OF EQ-5D IN PATIENTS TREATED FOR EXTREMITY SARCOMA**
*Anu K. Suokas; Gareth Stephens; Lucie Gosling; **Robert J. Grimer**
Royal Orthopaedic Hospital NHS Foundation Trust, Birmingham, United Kingdom*

6:30 pm – 7:00 pm **Poster Session 1** *Grand Ballroom A & D*

Friday, November 6

6:30 am – 6:00 pm	Registration	<i>Grand Ballroom Foyer</i>
7:00 am – 8:00 am	Continental Breakfast & Poster Viewing	<i>Grand Ballroom A & D</i>
7:00 am – 8:00 am	Executive Committee Meeting	<i>Venezia</i>

8:00 am – 9:00 am
Grand Ballroom B & C

Symposium 2: Genetic Risk

Moderators: Joshua Schiffman and David Thomas

Osteosarcoma Risk

Lisa Mirabello, PhD, NCI

Ewing Sarcoma Risk

Joshua Schiffman, MD, Univ. of Utah

Rhabdomyosarcoma Risk

Philip Lupo, PhD, Baylor

International Sarcoma International Sarcoma Kindred Study

David Thomas, MD, Garvan Institute

Q & A / panel discussion

9:00 am – 10:30 am
Grand Ballroom B & C

Session 4: Sarcomas with Complex Genetic Changes

Moderators: Elizabeth Baldini and Kristen Ganjoo

Paper 015 2324817

POSTNATAL P53 KNOCKDOWN COOPERATES WITH EMBRYONIC SCHWANN CELL PRECURSOR *NF1* GENE LOSS TO PROMOTE MALIGNANT PERIPHERAL NERVE SHEATH TUMOR FORMATION

Angela C. Hirbe, MD, PhD¹; Sonika Dahiya²; Dinorah Friedmann-Morvinski³; Inder Verma³; Wade Clapp⁴; David Gutmann⁵

¹Medical Oncology, Washington University in St Louis, Saint Louis, MO, USA;

²Pathology, Washington University in St Louis, Saint Louis, MO, USA;

³Laboratory of Genetics, The Salk Institute of Biological Studies, La Jolla, CA, USA;

⁴Department of Medical and Molecular Genetics, Indiana University School of Medicine, Indianapolis, IN, USA; ⁵Neurology, Washington University in St Louis, Saint Louis, MO, USA

Paper 016 2333495

WHOLE GENOME SEQUENCING REVEALS THAT ATRX MUTATIONS AND CHROMATIN REMODELING PATHWAY ALTERATIONS CONTRIBUTE TO PLEOMORPHIC SARCOMAS ONCOGENESIS

Mickael Michaud, Post-doc¹; Gaëlle Pérot¹; Tom Lesluyes¹; Nelly Desplat¹; Lucile Delespaul¹; Sophie Le guellec⁴; Olivier Mauduit¹; Lydia Lartigue¹; Carlo Lucchesi¹; Eberhard Stoeckle⁵; Binh Bui³; Agnès Neuville³; Jean-Yves Blay²; Jean-Michel Coindre³; Frédéric Chibon¹

¹U916, INSERM, Bordeaux, France; ²Department of Medical Oncology, Centre Léon Bérard, Lyon, France; ³Department of Biopathology, Institut Bergonié, Bordeaux, France; ⁴Institut Claudius Rigaud, Toulouse, France; ⁵Department of Surgery, Institut Bergonié, Bordeaux, France

- Paper 017 2334721 **EFFICACY OF STEREOTACTIC BODY RADIATION THERAPY TO TREAT PULMONARY METASTASES FROM SARCOMA: A POTENTIAL ALTERNATIVE TO RESECTION**
Brian C. Baumann¹; Suneel Nagda¹; James Kolker¹; William P. Levin¹; Kristy Weber²; Arthur Staddon³; Lee Hartner³; Stephen M. Hahn⁴; Eli Glatstein¹; Charles B. Simone¹
¹Radiation Oncology, University of Pennsylvania, Philadelphia, PA, USA;
²Orthopaedic Oncology, University of Pennsylvania, Philadelphia, PA, USA;
³Medical Oncology, University of Pennsylvania, Philadelphia, PA, USA;
⁴Radiation Oncology, MD Anderson Cancer Center, Houston, TX, USA
- Paper 018 2335019 **SAFETY, FEASIBILITY AND ACTIVITY OF INTRATUMORAL INJECTION OF ACTIVATED AUTOLOGOUS DENDRITIC CELLS IN SOLID TUMORS INCLUDING SOFT TISSUE SARCOMAS: A PHASE 1 CLINICAL TRIAL**
Vivek Subbiah, MD¹; Ravi Murthy¹; David S. Hong¹; Robert Prins²; Chitra Hosing¹; Indreshpal Kaur¹; Robert E. Brown³; Mary McGuire³; Aung Naing¹; Quan D. Lin¹; Anthony P. Conley¹; Robert S. Benjamin¹; Kamalesh Sankhala⁴; Sant P. Chawla⁴; Marnix M. Bosch⁵
¹MD Anderson Cancer Center, Houston, TX, USA; ²ULCA, Los Angeles, CA, USA;
³Pathology, UT Health Houston, Houston, TX, USA; ⁴Cancer Center of California & Sarcoma Oncology Center, Santa Monica, CA, USA; ⁵Northwest Biotherapeutics, Bethesda, MD, USA
- Paper 019 2334709 **PREDICTING SURVIVAL IN PRIMARY RESECTED EXTREMITY SOFT TISSUE SARCOMA: AN UPDATED NOMOGRAM EXTERNALLY VALIDATED ON 3 INDEPENDENT SERIES.**
Dario Callegaro¹; Rosalba Miceli²; Sylvie Bonvalot³; Peter Ferguson⁴; Dirk Strauss⁵; Antonine Levy⁶; Anthony M. Griffin⁴; Andrew J Hayes⁵; Cécile Le Pechoux⁶; Marco Fiore¹; Angelo P. Dei Tos⁷; Jay Wunder⁴; Raphael Pollock⁸; Alex Gronchi¹
¹Surgery, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy;
²Biostatistics, Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy; ³Surgery, Curie Institute, Paris, France; ⁴Mount Sinai Hospital and Princess Margaret Cancer Centre, and Department of Surgery, University of Toronto, Toronto, ON, Canada; ⁵Surgery, Royal Marsden Hospital NHS Foundation Trust, London, United Kingdom; ⁶Institute Gustave Roussy, Villejuif, France; ⁷Pathology, General Hospital, Treviso, Italy; ⁸Department of Surgery, Division of Surgical Oncology, Ohio State University Medical Center, Columbus, Columbus, OH, USA
- Paper 020 2315147 **A RANDOMIZED PHASE 1B/2 STUDY EVALUATING THE SAFETY AND EFFICACY OF DOXORUBICIN (DOX) WITH OR WITHOUT OLARATUMAB (IMC-3G3), A HUMAN ANTI-PLATELET-DERIVED GROWTH FACTOR α (PDGFR α) MONOCLONAL ANTIBODY, IN ADVANCED SOFT TISSUE SARCOMA (STS)**
William D. Tap¹; Robin Jones²; Bartosz Chmielowski³; Anthony Elias⁴; Douglas Adkins⁵; Brian Van Tine⁵; Mark Agulnik⁷; Matthew Cooney⁶; Michael Livingston⁸; Gregory Pennock⁹; Amy Qin¹²; Ashwin Shahir¹¹; Robert Ilaria¹³; Ilaria Conti¹³; Gary Schwartz¹⁰
¹Memorial Sloan-Kettering Cancer Center, New York, NY, USA; ²Fred Hutchinson Cancer Research Center, Seattle, WA, USA; ³UCLA Melanoma Sarcoma Program, Los Angeles, CA, USA; ⁴University of Colorado Cancer Center, Aurora, CO, USA; ⁵Washington University Medical School, St. Louis, MO, USA; ⁶University Hospitals Case Medical Center, Cleveland, OH, USA; ⁷Northwestern University, Chicago, IL, USA; ⁸Carolinas Healthcare System, Charlotte, NC, USA; ⁹Levine Cancer Institute, Charlotte, NC, USA;
¹⁰Columbia University School of Medicine, New York, NY, USA; ¹¹Eli Lilly and Company, Erl Wood, United Kingdom; ¹²Eli Lilly and Company, Bridgewater, NJ, USA; ¹³Eli Lilly and Company, Indianapolis, IN, USA

Paper 021	2336638	<p>RANDOMIZED, OPEN-LABEL, MULTICENTER, PHASE 3 STUDY OF ERIBULIN VERSUS DACARBAZINE IN PATIENTS WITH LEIOMYOSARCOMA AND ADIPOCYTIC SARCOMA: SUBGROUP ANALYSES</p> <p>Sant P. Chawla, MD¹; Shreyaskumar Patel²; Edwin Choy³; Viktor Gruenwald⁴; Peter Hohenberger⁵; David D'Adamo⁶; Ren Chen⁶; Giovanni Grignani⁷; Robin Jones⁸; Patrick Schöffski⁹; Robert G. Maki¹⁰</p> <p>¹Sarcoma Oncology Center, Santa Monica, CA, USA; ²Department of Sarcoma Medical Oncology, University of Texas, MD Anderson Cancer Center, Houston, TX, USA; ³Division of Hematology/Oncology, Massachusetts General Hospital, Boston, MA, USA; ⁴Department of Hematology, Hematosis, Oncology, and Stem Cell Transplantation, Medical School of Hannover, Hanover, Germany; ⁵Division of Surgical Oncology and Thoracic Surgery, Department of Surgery, Manheim University Medical Center, Manheim, Germany; ⁶Eisai Inc, Woodcliff Lake, NJ, USA; ⁷Department of Medical Oncology, Fondazione del Piemonte per l'Oncologia IRCC, Candiolo, Italy; ⁸University of Washington and Fred Hutchinson Cancer Research Center, Seattle, WA, USA; ⁹University Hospitals Leuven, Leuven, Belgium; ¹⁰Tisch Cancer Institute, Mount Sinai Medical Center, New York, NY, USA</p>
Paper 022	2324531	<p>GEDDIS: A PROSPECTIVE RANDOMISED CONTROLLED PHASE III TRIAL OF GEMCITABINE AND DOCETAXEL (GEMDOC) COMPARED WITH DOXORUBICIN (DOX) AS FIRST LINE TREATMENT IN PREVIOUSLY UNTREATED ADVANCED UNRESECTABLE OR METASTATIC SOFT TISSUE SARCOMAS</p> <p>Beatrice M. Seddon²; Jeremy Whelan²; Sandra Strauss²; Michael Leahy⁴; Penella Woll³; Fiona Cowie⁵; Christian Rothermundt⁶; Zoe Wood²; Sharon Forsyth¹; Stephen Nash¹; Paul Patterson¹; Sandra Beare, PhD¹</p> <p>¹CR UK & UCL Cancer Trials Centre, University College London, London, United Kingdom; ²University College Hospital, London, United Kingdom; ³Weston Park Hospital, Sheffield, United Kingdom; ⁴Christie Hospital, Manchester, United Kingdom; ⁵Beatson Oncology Centre, Glasgow, United Kingdom; ⁶Swiss Group for Clinical Cancer Research SAKK, St Gallen, Switzerland</p>
10:30 am – 11:00 am	Break	<i>Grand Ballroom A & D</i>
11:00 am – 12:00 pm	<i>Grand Ballroom B & C</i>	<p>Nina Axelrad Lecture:</p> <p>“Soft Tissue Sarcomas: Where Are We Now? ”</p> <p>Christopher D.M. Fletcher, MD FRCPath, Brigham & Women's Hospital</p>
12:00 pm – 1:00 pm	Lunch	<i>Imperial Ballroom B-D</i>
12:00 pm – 1:00 pm	Board of Directors	<i>Venezia</i>

1:00 pm – 2:30 pm	Session 5: Osteosarcoma
Grand Ballroom B & C	Moderators: Kirsten Sundby Hall and Akira Kawai

- Paper 023 2339441 **WHY CAN'T WE ALL SPEAK THE SAME LANGUAGE? AN ANALYSIS OF THE DEFINITION AND SIGNIFICANCE OF MARGINS IN THE EURAMOS-1 TRIAL**
Robert J. Grimer¹; R. Lor Randall²; Reinhard Windhager³; Otte Brosjö⁴; Gordana Jovic⁵; Jeremy Whelan⁶; Stefan S. Bielack⁷; Neyssa M. Marina⁸; Sigbjørn Smeland⁹; Mark D. Krailo¹⁰; Trude Butterfass-Bahloul¹¹; Pancras Hogendoorn¹²; Mark L. Bernstein¹³; Matthew R. Sydes⁵
¹The Royal Orthopaedic Hospital, Birmingham, United Kingdom; ²Huntsman Cancer Institute, University of Utah, Salt Lake City, UT, USA; ³University Clinic for Orthopaedic Surgery, Vienna, Austria; ⁴Karolinska Hospital, Stockholm, Sweden; ⁵Medical Research Council, Clinical Trials Unit, University College London, London, United Kingdom; ⁶University College Hospital, Department of Oncology, London, United Kingdom; ⁷Klinikum Stuttgart – Olgahospital, Cooperative Osteosarcoma Study Group (COSS), Stuttgart, Germany; ⁸Stanford University Medical Center, Pediatric Hematology/Oncology, Children's Oncology Group, Palo Alto, CA, USA; ⁹Oslo University Hospital, Division of Cancer, Surgery and Transplantation and Scandinavian Sarcoma Group, Oslo, Norway; ¹⁰Children's Oncology Group, Arcadia, CA, USA; ¹¹Centre for Clinical Trials, University Hospital Muenster, Muenster, Germany; ¹²Leiden University Medical Center, Leiden, Netherlands; ¹³IWK Health Center, Dalhousie University, Pediatric Hematology Oncology, Halifax, NS, Canada
- Paper 024 2314760 **LOCAL RECURRENCE IN THE EURAMOS-1 TRIAL – RISK FACTORS, MANAGEMENT AND OUTCOME**
Robert J. Grimer¹; R. Lor Randall²; Reinhard Windhager³; Otte Brosjö⁴; Gordana Jovic⁵; Jeremy Whelan⁶; Stefan S. Bielack⁷; Neyssa M. Marina⁸; Sigbjørn Smeland⁹; Mark D. Krailo¹⁰; Trude Butterfass-Bahloul¹¹; Pancras Hogendoorn¹²; Mark L. Bernstein¹³; Matthew R. Sydes⁵
¹Royal Orthopaedic Hospital, Birmingham, United Kingdom; ²Huntsman Cancer Institute, University of Utah, Salt Lake City, UT, USA; ³University Clinic For Orthopaedic Surgery, Vienna, Austria; ⁴Karolinska Hospital, Stockholm, Sweden; ⁵Medical Research Council, Clinical Trials Unit, University College London, London, United Kingdom; ⁶University College Hospital, Department of Oncology, London, United Kingdom; ⁷Klinikum Stuttgart – Olgahospital, Cooperative Osteosarcoma Study Group (COSS), Stuttgart, Germany; ⁸Stanford University Medical Center, Pediatric Hematology/Oncology, Children's Oncology Group, Palo Alto, CA, USA; ⁹Oslo University Hospital, Division of Cancer, Surgery and Transplantation and Scandinavian Sarcoma Group, Oslo, Norway; ¹⁰Children's Oncology Group, Arcadia, CA, USA; ¹¹Centre for Clinical Trials, University Hospital Muenster, Muenster, Germany; ¹²Leiden University Medical Center, Leiden, Netherlands; ¹³IWK Health Center, Dalhousie University, Pediatric Hematology Oncology, Halifax, NS, Canada
- Paper 025 2316813 **ASSESSING THE PROGNOSTIC SIGNIFICANCE OF HISTOLOGIC RESPONSE IN OSTEOSARCOMA - A COMPARISON OF OUTCOMES ON CCG-782 AND INT0133: A REPORT FROM THE CHILDREN'S ONCOLOGY GROUP**
Michael W. Bishop, MD, MS¹; Yu-Chen Chang²; Mark D. Krailo²; Paul A. Meyers³; Arthur J. Provisor⁶; Neyssa M. Marina⁴; Lisa A. Teot⁶; Richard G. Gorlick⁷; Katherine Janeway⁸; Alexander J. Chou³
¹Oncology, St. Jude Children's Research Hospital, Memphis, TN, USA; ²Preventive Medicine, University of Southern California, Los Angeles, CA, USA; ³Memorial Sloan Kettering Cancer Center, New York, NY, USA; ⁴Lucile Packard Children's Hospital, Palo Alto, CA, USA; ⁵Columbus Regional Medical Group, Columbus, GA, USA; ⁶Boston Children's Hospital, Boston, MA, USA; ⁷The Children's Hospital at Montefiore, Bronx, NY, USA; ⁸Dana Farber Cancer Institute, Boston, MA, USA

- Paper 026 2312195 **HEAT SHOCK PROTEIN 27 AS A PREDICTOR OF AUTOPHAGIC FATE IN CHEMOTHERAPY-INDUCED AUTOPHAGY IN OSTEOSARCOMA**
J. Andrew Livingston, MD¹; Janice M. Santiago-O’Farrill²; Jen-Wei Tsai³; Zhen Lu⁴; Robert C. Bast⁴; Wei-Lien Wang³; Nancy Gordon²; Eugenie S. Kleinerman²
¹Division of Cancer Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX, USA; ²Division of Pediatrics, The University of Texas MD Anderson Cancer Center, Houston, TX, USA; ³Department of Pathology, The University of Texas MD Anderson Cancer Center, Houston, TX, USA; ⁴Department of Experimental Therapeutics, The University of Texas MD Anderson Cancer Center, Houston, TX, USA
- Paper 027 2332975 **IDENTIFICATION OF TUMOR-DERIVED CIRCULATING MICRORNA SIGNATURES IN OSTEOSARCOMA PATIENTS**
Tomohiro Fujiwara¹; Koji Uotani¹; Aki Yoshida¹; Takuya Morita¹; Takenori Uehara¹; Ken Takeda¹; Toshiyuki Kunisada¹; Akira Kawai²; Takahiro Ochiya³; Toshifumi Ozaki¹
¹Orthopaedic Surgery, Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama, Japan; ²Musculoskeletal Oncology, National Cancer Center Hospital, Tokyo, Japan; ³Molecular and Cellular Medicine, National Cancer Center Research Institute, Tokyo, Japan
- Paper 028 2314399 **IL6 AND IL8 MEDIATE OSTEOSARCOMA LUNG TROPISM AND METASTASIS**
Ryan D. Roberts, MD PhD¹; Hakan Cam⁵; Hemant K. Bid²; Doris Phelps³; Maren Cam⁵; Brett Hendrickson⁴; Timothy P. Cripe¹; Peter Houghton³
¹Pediatric Hematology/Oncology/BMT, Nationwide Children’s Hospital, Columbus, OH, USA; ²The Ohio State University, Columbus, OH, USA; ³Greehey Children’s Cancer Research Institute, San Antonio, TX, USA; ⁴Pediatric Pathology, Nationwide Children’s Hospital, Columbus, OH, USA; ⁵Center for Childhood Cancer and Blood Disorders, Nationwide Children’s Hospital, Columbus, OH, USA
- Paper 029 2335260 **NOVEL ANTI-TUMOR EFFICACY OF MPEG-P ENCAPSULATED SHIKONIN AGAINST OSTEOSARCOMA THROUGH INDUCTION OF NECROPTOSIS**
Suoyuan Li; Hongsheng Wang; Yingqi Hua; Zhengdong Cai
 Department of Orthopedics, Shanghai General Hospital, Nanjing Medical University, Shanghai, Shanghai, China

2:30 pm – 3:00 pm

Break

Grand Ballroom A & D

3:00 pm – 3:30 pm
 Grand Ballroom B & C

The Liddy Shriver Initiative: More than a Decade of Support
 Moderators: R. Lor Randall, Matt van de Rijn, and Josh Schiffman

3:30 pm – 4:30 pm
 Grand Ballroom B & C

Special Session:
Circulating Tumor DNA (ctDNA)
 Moderators: Matt van de Rijn and Josh Schiffman

Measuring Tumor Response in a Tumor with Multiple Genomic Changes
 Matt van de Rijn

ctDNA in Tumors with Simple Genetic Changes: EWS
 Brian Crompton & Neal Shukla

Early Detection of Malignancy in Pts w/ Li-Fraumeni Syndrome
 Joshua Schiffman

4:30 pm – 5:30 pm		Session 6: GIST
Grand Ballroom B & C		Moderators: Raph Pollock and Chand Raut
Paper 030	2300219	<p>COMPREHENSIVE GENOMIC PROFILING OF QUADRUPLE (KIT/PDGFR/SDH/RAS PATHWAY) WILD-TYPE GASTROINTESTINAL STROMAL TUMORS</p> <p><i>Eileen Shi¹; Kai Wang²; Jeffrey S. Ross²; Chih-Min Tang⁴; Olivier Harismendy³; Siraj Ali²; James D. Murphy¹; Paul T. Fanta¹; Lisa Madlensky¹; Razelle Kurzrock¹; Deborah Morosini²; Jason K. Sicklick, MD⁴</i></p> <p>¹UCSD, School of Medicine, La Jolla, CA, USA; ²Foundation Medicine, Cambridge, MA, USA; ³Department of Biomedical Informatics, UCSD, La Jolla, CA, USA; ⁴Department of Surgical Oncology, UCSD, La Jolla, CA, USA</p>
Paper 031	2324542	<p>THE MULTI-TARGET TYROSINE KINASE INHIBITOR CABOZANTINIB (CABO) SHOWS ANTI-TUMOR EFFICACY IN XENOGRAFT MODELS OF GASTROINTESTINAL STROMAL TUMOR (GIST)</p> <p><i>Yemarshet K. Gebreyohannes¹; Agnieszka Wozniak, PhD¹; Jasmien Wellens¹; Lise Vreys¹; Jasmien Cornillie¹; Ulla Vanleeuw¹; Dana Aftab²; Maria Debiec-Rychter³; Raf Sciot⁴; Patrick Schöffski¹</i></p> <p>¹Laboratory of Experimental Oncology and Department of General Medical Oncology, KU Leuven and University Hospitals, Leuven, Leuven, Belgium; ²Exelixis, San Francisco, CA, USA; ³Department of Human Genetics, KU Leuven and University Hospitals Leuven, Leuven, Belgium; ⁴Department of Pathology, KU Leuven and University Hospitals, Leuven, Leuven, Belgium</p>
Paper 032	2339847	<p>DOES OMITTING ADJUVANT IMATINIB AFTER NEOADJUVANT IMATINIB COMPROMISE RECURRENCE RATES IN LOCALLY ADVANCED M0 GIST? LONG-TERM DATA FROM A PROSPECTIVE TRIAL</p> <p><i>Peter Hohenberger, MD, PhD¹; Franka Menge¹; Eva Wardelmann⁷; Elisabeth Andre⁴; Alexander Marx⁶; Thomas Licht³; Annette Pustowka⁵; Peter Reichardt²</i></p> <p>¹Dept. of Surgery, Div. of Surgical Oncology&Thoracic Surgery, Mannheim, Germany; ²Dept Internal Medicin, Helios Klinikum, Cneter for Interdisciplinary Oncology, Berlin, Germany; ³Det of Internal Medicine, Oberstaufen, Germany; ⁴Studienzentrum Klinikum rechts der Isar, TU Munich, Munich, Germany; ⁵Novartis Oncology, Nürnberg, Germany; ⁶Dept of Pathology, Mannheim, Germany; ⁷Dept of Pathology, Muenster, Germany</p>
Paper 033	2325539	<p>HOW DO WE TREAT OUR ELDERLY GIST PATIENTS? A RETROSPECTIVE COHORT STUDY OF THE DUTCH GIST CONSORTIUM</p> <p><i>Sheima Farag¹; Esther Sneekes¹; Pieter Boonstra²; Frits van Coevorden³; Winette Van der Graaf⁶; Dirk J. Grünhagen⁴; An Reyners²; Hans Gelderblom⁵; Neeltje Steeghs¹</i></p> <p>¹Medical Oncology, Antoni van Leeuwenhoek Hospital, Amsterdam, Netherlands; ²Medical Oncology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands; ³Surgical Oncology, Antoni van Leeuwenhoek Hospital, Amsterdam, Netherlands; ⁴Surgical Oncology, Erasmus University Medical Center, Rotterdam, Netherlands; ⁵Medical Oncology, Leiden University Medical Center, Leiden, Netherlands; ⁶Medical Oncology, Radboud University Medical Center, Nijmegen, Netherlands</p>

Paper 034 2306514 **SURGERY FOR METASTATIC GASTROINTESTINAL STROMAL TUMOR (GIST)
ON TYROSINE KINASE INHIBITOR (TKI) THERAPY: A MULTICENTER ANALYSIS**
Mark Fairweather, MD¹; Vinod Balachandran²; Monica Bertagnolli¹; Cristina R. Antonescu³;
Samuel Singer²; Ronald Dematteo²; Chandrajit Raut¹
¹Surgery, Brigham and Women's Hospital/Harvard Medical School, Boston, MA, USA;
²Surgery, Memorial Sloan-Kettering Cancer Center, New York, NY, USA;
³Pathology, Memorial Sloan Kettering Cancer Center, New York, NY, USA

5:30 pm – 6:30 pm **Poster Session 2** *Grand Ballroom B & C*

7:00 pm – 10:00 pm **Gala Reception & Dinner** *Natural History Museum of Utah*

Saturday, November 7

7:00 am – 8:00 am **Continental Breakfast & Poster Viewing** *Grand Ballroom A & D*

7:00 am – 5:00 pm **Registration** *Grand Ballroom Foyer*

8:30 am – 10:00 am **Symposium 3: Adolescent & Young Adult Sarcoma**

Grand Ballroom B & C

Moderators: Holly Spraker-Perlman and Lara Davis

Functional Outcomes in AYA Sarcoma Patients

Kirsten Ness, PT, PhD, St. Jude Children's Research Hospital

Clinical Genomics of AYA Sarcoma

Deborah Morosini, MD, Vice President of Clinical Development, Foundation Medicine

Establishing an AYA Sarcoma Program

Damon Reed, MD, Director of AYA Program, Moffit Cancer Center

Panel Discussion: Clinical Management of Adolescent and Young Adults with Sarcoma: Exploring Similarities and Differences in Medical and Pediatric Oncology Practices

Dr. Karen Albritton, Cook Children's Medical Center, Fort Worth, Texas
(Pediatric & AYA Oncology)

Dr. Robin Jones, The Royal Marsden and Institute of Cancer Research, London, UK
(Medical Oncology)

Dr. Abha Gupta, Hospital for Sick Children, Toronto, Ontario, Canada
(Pediatric & Adult Oncology)

Dr. Lor Randall, Huntsman Cancer Institute/Primary Children's Hospital, Salt Lake City, Utah (Adult & Pediatric Sarcoma Surgery)

10:00 am – 10:30 am **Break** *Grand Ballroom A & D*

10:30 am – 11:00 am **Young Investigator Award Winners**

Grand Ballroom B & C

Moderators: R. Lor Randall and Matt van de Rijn

- Paper 035 2339619 **OVERLAPPING AND DISTINCT GENETIC CHANGES IN OSTEOSARCOMA ACROSS SPECIES**
William C. Eward, MD, DVM¹; Suzanne Bartholf DeWitt¹; Anupama Reddy¹; Cindy Eward²; Benjamin Alman¹; David G. Kirsch¹; Brian E. Brigman¹; Mary-Keara Boss³; Jason Somarelli¹; Sandeep Dave¹
¹Duke University Medical Center, Durham, NC, USA; ²Small Animal Surgery, Triangle Veterinary Referral Hospital, Durham, NC, USA; ³North Carolina State University College of Veterinary Medicine, Raleigh, NC, USA
- Paper 036 2339332 **PTEN DELETION IN A MOUSE MODEL OF SYNOVIAL SARCOMA RESULTS IN A PRO-INFLAMMATORY MICROENVIRONMENT THAT GENERATES LUNG METASTASES**
Jared Barrott; Huifeng Jin; Matthew Cable; Yanliang Wang; Kyllie Smith-Fry; Kevin B. Jones
Department of Orthopaedics, University of Utah, Huntsman Cancer Institute, Salt Lake City, UT, USA

11:00 am – 12:00 pm

Grand Ballroom B & C

Herman Suit Lecture

“Exploitation of Genetic Features in Mesenchymal Neoplasms: Advancing Precision Pathology and Patient Care”

Julia A. Bridge, MD, FACMG,
Nebraska Medical Center

12:00 pm – 1:00 pm

Lunch

Imperial Ballroom B-D

1:00 pm – 1:30 pm

Grand Ballroom B & C

Session 7: Sarcomas with Simple Genetic Changes

Moderator: Sheri Spunt

Paper 037 2335431

MYOEPITHELIAL NEOPLASMS (MN) OF THE SOFT TISSUE (ST), BREAST, BONE AND SALIVARY GLAND (SG): DIFFERENT ENTITIES OR A SINGLE DISEASE? A WORK IN PROGRESS

Silvia Stacchiotti, MD¹; Gianpaolo Dagrada²; Annalisa Astolfi³; Monica brenca⁴; Marco Fiore⁵; Alessandro Gronchi⁶; Paola Collini²; Maria A. Pantaleo³; Piero Picci⁶; Laura Locati¹; Paolo G. Casali¹; Rossi Sabrina⁷; Roberta Maestro⁴; Silvana Pilotti²; Angelo P. Dei Tos⁷

¹Cancer Medicine, Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy;

²Pathology and Molecular Biology, Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy; ³Policlinico S. Orsola-Malpighi - Università di Bologna, Bologna, Italy; ⁴CRO Aviano National Cancer Institute, Aviano, Italy; ⁵Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy; ⁶Istituto Ortopedico Rizzoli, Bologna, Italy; ⁷Anatomic Pathology, General Hospital of Treviso, Treviso, Italy

Paper 038 2331094

IDENTIFICATION OF NOVEL DRUGABLE TARGETS FOR THE TREATMENT OF MYXOID LIPOSARCOMAS

Marieke A. de Graaff, MD¹; Shruti Malu³; Alwine Kruisselbrink¹; Irma Guardiola³; Patrick Hwu³; Torsten O. Nielsen²; Alexander J. Lazar⁴; Neeta Somaiah⁵; Judith Bovee¹

¹Pathology, Leiden University Medical Center, Leiden, ZH, Netherlands; ²Pathology & Laboratory Medicine, University of British Columbia, Vancouver, BC, Canada; ³Melanoma Medical Oncology, University of Texas MD Anderson Cancer Center, Houston, TX, USA; ⁴Pathology, University of Texas MD Anderson Cancer Center, Houston, TX, USA; ⁵Sarcoma Medical Oncology, University of Texas MD Anderson Cancer Center, Houston, TX, USA

Paper 039 2327968

CYTOTOXIC CHEMOTHERAPY IN SOLITARY FIBROUS TUMOR (SFT): A COMPARISON OF DIFFERENT REGIMENS IN TWO PATIENT-DERIVED MODELS

Silvia Stacchiotti, MD¹; Roberta Frapolli²; Monica Tortoreto³; Denis Cominetti³; Tiziana Negri³; Ezia Bello²; Alessandro Gronchi³; Chiara Colombo³; Paolo G. Casali¹; Silvana Pilotti³; Maurizio D'Incalci²; Nadia Zaffaroni³

¹Fondazione IRCCS Istituto Nazionale Tumori, Milan, Italy; ²Istituto Mario Negri, Milan, Italy;

³Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy

1:30 pm – 2:30 pm		Session 8: Ewing Sarcoma
Grand Ballroom B & C		Moderators: Stephen Lessnick and Lynn Million
Paper 040	2332647	<p>A CRISPRI SCREEN IDENTIFIES PATHWAYS THAT PROMOTE SENSITIVITY TO CYTOTOXIC CHEMOTHERAPY IN EWING'S SARCOMA Asmin Tulpule, MD, PhD¹; Jennifer Flanagan²; Max Horlbeck³; Jonathan Weissman³; Trever Bivona² ¹Pediatric Hematology/Oncology, UCSF, San Francisco, CA, USA; ²Thoracic Oncology, UCSF, San Francisco, CA, USA; ³UCSF, San Francisco, CA, USA</p>
Paper 041	2326895	<p>HEDGEHOG PATHWAY ACTIVATION AND SARCOMA PHENOTYPIC OUTCOME Jonathan T. Fleming, PhD Cell and Developmental Biology, Vanderbilt University, Nashville, TN, USA</p>
Paper 042	2339934	<p>FUNCTIONAL OUTCOME AND DAILY-LIFE ACTIVITY IN 603 LONG-TERM SURVIVORS OF EWING SARCOMA Andreas Ranft¹; Christiane Hoffmann¹; Corinna Winter²; Ann-Christin Warby¹; Dieter Rosenbaum²; Heribert Juergens¹; Uta T. Dirksen¹ ¹Pediatric Hematology and Oncology, University Hospital, Muenster, Germany; ²Institute for Experimental Musculoskeletal Medicine, University Hospital, Muenster, Germany</p>
Paper 043	2334130	<p>DURABLE BENEFIT OF INTERVAL COMPRESSED (IC) CHEMOTHERAPY FOR LOCALIZED EWING SARCOMA (ES): 10 YEAR FOLLOW-UP OF COG AEWS0031 Richard B. Womer, MD¹; Elizabeth McIlvaine²; Mark D. Krailo³; Daniel C. West³; Paul S. Dickman⁷; Bruce R. Pawel⁶; Karen J. Marcus⁸; Dormans P. John⁵; Aaron R. Weiss¹⁰; Holcombe E. Grier⁴; Richard G. Gorlick¹¹ ¹Pediatrics / Oncology, Children's Hospital of Philadelphia / U. Penn., Philadelphia, PA, USA; ²Children's Oncology Group, Monrovia, CA, USA; ³Pediatrics, University of California San Francisco, San Francisco, CA, USA; ⁴Pediatrics, Dana-Farber Cancer Institute, Boston, MA, USA; ⁵Orthopedics, Texas Children's Hospital, Houston, TX, USA; ⁶Pathology, Children's Hospital of Philadelphia, Philadelphia, PA, USA; ⁷Pathology, Phoenix Children's Hospital, Phoenix, AZ, USA; ⁸Radiation Oncology, Dana Farber Cancer Institute/ Boston Children's Hospital, Boston, MA, USA; ⁹Department of Preventive Medicine, University of Southern California, Los Angeles, CA, USA; ¹⁰Pediatrics, Maine Medical Center, Portland, ME, USA; ¹¹Pediatrics, Children's Hospital at Montefiore, New York, NY, USA</p>
Paper 044	2338254	<p>BIOLOGICAL AND CLINICAL IMPLICATIONS OF GERMLINE GENOMIC SCREENING OF 1162 SARCOMA FAMILIES Mandy L. Ballinger¹; David Goode¹; Isabelle Ray-Coquard²; Ajay Puri³; Joshua D. Schiffman⁴; Ian Judson⁵; Beatrice M. Seddon⁶; Paul A. James¹; Gillian Mitchell⁷; Iain Ward⁸; Ola M. Myklebost⁹; Robert G. Maki¹⁰; Ian Campbell¹; Sung-Min Ahn¹¹; David M. Thomas¹² ¹Peter MacCallum Cancer Centre, Melbourne, Victoria, Australia; ²Centre Leon Berard, Lyon, France; ³Tata Memorial Hospital, Mumbai, India; ⁴Huntsman Cancer Institute, Salt Lake City, UT, USA; ⁵Royal Marsden Hospital, London, United Kingdom; ⁶University College Hospital, London, United Kingdom; ⁷BC Cancer Agency, Vancouver, BC, Canada; ⁸Canterbury Regional Cancer and Haematology Service, Christchurch, New Zealand; ⁹Oslo University Hospital, Oslo, Norway; ¹⁰Mount Sinai School of Medicine, New York, NY, USA; ¹¹Asan Medical Centre, Seoul, Korea (the Republic of); ¹²The Kinghorn Cancer Centre, Garvan Institute of Medical Research, Sydney, New South Wales, Australia</p>
2:30 pm – 3:00 pm		<p>Break Grand Ballroom A & D</p>

3:00 pm – 4:00 pm		Session 9: Borderline Lesions
Grand Ballroom B & C		Moderators: Alex Lazar and Dennis Priebat
Paper 045	2299781	<p>CORRELATION OF CTNNB1 MUTATION STATUS WITH PROGRESSION ARREST RATE IN RECIST PROGRESSIVE DESMOID TUMORS TREATED WITH IMATINIB - TRANSLATIONAL RESEARCH RESULTS FROM A PHASE II STUDY OF THE GERMAN INTERDISCIPLINARY SARCOMA GROUP (GISG-01)</p> <p>Bernd Kasper, MD, PhD¹; Viktor Gruenwald²; Peter Reichardt³; Sebastian Bauer⁴; Peter Hohenberger¹; Florian Haller⁵</p> <p>¹Mannheim University Medical Center, Mannheim, Germany; ²Hannover Medical School, Hannover, Germany; ³HELIOS Klinikum Berlin-Buch, Berlin, Germany; ⁴West German Cancer Center, Essen, Germany; ⁵Institute of Pathology, Erlangen-Nuremberg, Germany</p>
Paper 046	2335893	<p>NON-SURGICAL TREATMENT AND OUTCOME OF EXTRA-ABDOMINAL AND ABDOMINAL DESMOID-TYPE FIBROMATOSIS: A POPULATION BASED STUDY</p> <p>Danique L. van Broekhoven, MD¹; Arjan Verschoor²; Thijs van Dalen³; Dirk J. Grünhagen¹; Michael A. den Bakker⁴; Hans Gelderblom²; Judith Bovee⁵; Rick Haas⁶; Han J. Bonenkamp⁷; Winette Van der Graaf⁸; Elisabeth Pras⁹; An Reyners¹⁰; Anneke M. Westermann¹¹; Neeltje Steeghs¹²; Cornelis Verhoef¹</p> <p>¹Surgical Oncology, Erasmus MC, Rotterdam, Netherlands; ²Medical Oncology, Leids University Medical Center, Leiden, Netherlands; ³Surgery, Diaconessenhuis, Utrecht, Netherlands; ⁴Pathology, Erasmus MC, Rotterdam, Netherlands; ⁵Pathology, Leids University Medical Center, Leiden, Netherlands; ⁶Radiotherapy, Netherlands Cancer Institute - Antoni van Leeuwenhoek, Amsterdam, Netherlands; ⁷Surgery, Radboud University Medical Center, Nijmegen, Netherlands; ⁸Medical Oncology, Radboud University Medical Center, Nijmegen, Netherlands; ⁹Radiotherapy, University Medical Center Groningen, Groningen, Netherlands; ¹⁰Medical Oncology, University Medical Center Groningen, Groningen, Netherlands; ¹¹Medical Oncology, Academic Medical Center, Amsterdam, Netherlands; ¹²Medical Oncology, Netherlands Cancer Institute - Antoni van Leeuwenhoek, Amsterdam, Netherlands</p>
Paper 047	2339224	<p>CONSIDERATIONS FOR LONG-TERM MAINTENANCE TREATMENT WITH DENOSUMAB FOR STABLE INOPERABLE GIANT CELL TUMOR: MAKING A CASE FOR SPACING OF DOSES AFTER INITIAL RESPONSE</p> <p>Susan V. Bukata, MD¹; Madhuri Sudan³; William Mendanha³; Neal S. Chawla³; Kamallesh Sankhala³; Mark A. Eckardt¹; Lawrence Menendez²; Nicholas M. Bernthal¹; Earl W. Brien⁴; Rena Emond³; Victoria S. Chua-Alcala³; Bradley A. Jabour⁵; Omid Jafari⁵; Sant P. Chawla³</p> <p>¹Orthopaedics, UCLA, Santa Monica, CA, USA; ²Orthopedics, USC, Los Angeles, CA, USA; ³Sarcoma Oncology, Santa Monica, CA, USA; ⁴Orthopedics, Cedars-Sinai Medical Center, Los Angeles, CA, USA; ⁵Medical Imaging Center Southern California, Santa Monica, CA, USA</p>
Paper 048	2339595	<p>THE OUTCOME OF PATIENTS WITH METASTATIC GIANT CELL TUMOR OF BONE</p> <p>Valerae O. Lewis, MD¹; Risa Reid¹; Patrick P. Lin¹; Bryan Moon¹; Robert Satcher¹; Justin Bird¹; Robert S. Benjamin²</p> <p>¹Orthopaedic Oncology, MD Anderson Cancer Center, Houston, TX, USA; ²Sarcoma Medical Oncology, MD Anderson Cancer Center, Houston, TX, USA</p>

Paper 049	2330113	IDENTIFICATION OF LESIONS CONCERNING FOR MALIGNANT PERIPHERAL NERVE SHEATH TUMORS IN NF1 <i>Brigitte Widemann, MD¹</i> ; <i>Sucharita Bhaumik¹</i> ; <i>Srivandana Akshintala¹</i> ; <i>James Reynolds²</i> ; <i>Andrea Baldwin¹</i> ; <i>Markku Miettinen³</i> ; <i>Joanne Derdak¹</i> ; <i>Holly Meany⁴</i> ; <i>Eva Dombi¹</i> <i>¹Pediatric Oncology Branch, NCI, Bethesda, MD, USA; ²Clinical Center, NCI, Bethesda, MD, USA; ³Pathology, NCI, Bethesda, MD, USA; ⁴Children's National Medical Center, Washington, DC, USA</i>
4:00 pm – 5:00 pm	CTOS Members' Business Meeting	<i>Grand Ballroom B & C</i>
5:00 pm	Adjourn	
5:00 pm	Poster Session Dismantle	<i>Grand Ballroom A & D</i>

Posters

Angiosarcoma

Poster 001 2339625

EPITHELIOID HEMANGIOENDOTHELIOMA: RETROSPECTIVE ANALYSIS IN A SINGLE INSTITUTION

Maria Angeles Vaz; Alfonso Cortes; Maria Eugenia Reguero; SANTIAGO RESANO; Ignacio Gallego; Jacobo Cabañas; Antonio Mena; Israel Perez; Damian Perez; Jacobo Muñoz; Reyes Ferreiro; Mercedes Rodriguez; Ana Gomez Rueda; Carmen Guillen-Ponce; Alfredo Carrato

Medical Oncology, Ramon y Cajal University Hospital, Madrid, Madrid, Spain

Poster 002 2339588

BEATING THE ODDS – A CASE OF INOPERABLE PRIMARY CARDIAC ANGIOSARCOMA

Alexia F. Bertuzzi, MD¹; Sarah Picardo¹; Marvin C. Lim¹; Janice Walshe¹; Ian Judson²

¹Oncology, Tallaght Hospital, Dublin, Dublin, Ireland; ²Oncology, Royal Marsden, London, London, United Kingdom

Poster 003 2322577

A MODEL FOR DISTRESS SCREENING AMONG PATIENTS RECEIVING CONSULTATIONS AT A TERTIARY REFERRAL CENTER

Elizabeth T. Loggers, MD, PhD¹; Darin Davidson²; Edward Y. Kim²; Seth M. Pollack³; Gabrielle Kane²; Ernest U. Conrad⁴; Robin Jones²

¹Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA, USA; ²University of Washington, Seattle, WA, USA; ³Fred Hutchinson Cancer Research Center, Seattle, WA, USA; ⁴Seattle Children's Hospital, Seattle, WA, USA

Poster 004 2335805

A PHASE 1/2 STUDY OF THE SAFETY AND EFFICACY OF THE COMBINATION OF GEMCITABINE AND DOCETAXEL WITH ONTUXIZUMAB (MORAB-004) IN METASTATIC SOFT-TISSUE SARCOMA

Robin L. Jones³; Sant P. Chawla²; Steven Attia⁶; Patrick Schöffski⁴; Hans Gelderblom⁵; Bartosz Chmielowski⁷; Axel LeCesne¹³; Brian Van Tine⁸; Jonathan C. Trent⁹; Shreyaskumar Patel¹⁰; Andrew J. Wagner¹¹; Rashmi Chugh¹²; **John W. Heyburn¹**; Susan C. Weil¹; Robert G. Maki¹⁴

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ANGIOSARCOMA: CLINICAL BEHAVIOR

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IMPACT OF CHEMOTHERAPY ON SURVIVAL IN PRIMARY GASTROINTESTINAL ANGIOSARCOMAS

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OUTCOMES AND CLINICOPATHOLOGIC FEATURES OF PATIENTS PRESENTING WITH ANGIOSARCOMA OF THE BREAST

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SARCOMA OF THE HEART AND LARGE VESSELS IS A LATE DIAGNOSED AND FATAL DISEASE

Viktor Gruenwald; Marcus Krueger; Philipp Ivanyi; Florian Laenger
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VISCERAL ANGIOSARCOMA SERIES: DIFFERENTIAL BEHAVIOUR BETWEEN BREAST ANGIOSARCOMAS AND OTHER LOCATIONS. A SPANISH GROUP FOR SARCOMA RESEARCH (GEIS) STUDY.

Josefina Cruz, Medical Oncologist⁴; Nadia Hindi¹; Rosa Alvarez³; Jose Antonio López⁶; Antonio Gutierrez²; Antonio Lopez-Pousa⁷; Maria Jesús Blanco⁸; Javier Martinez-Trufero¹⁴; Juana Maria Cano⁹; Claudia Valverde⁵; Jerónimo Martínez¹⁰; Jordi Rubió¹¹; Angeles Sala¹²; J Alejandro Perez-Fidalgo¹³; Javier Martin¹

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CLINICAL FEATURES, PROGNOSTIC FACTORS AND TREATMENT OUTCOMES OF ANGIOSARCOMA: A REVIEW OF 93 CASES

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Rita De Sanctis, MD; Andrea Marrari; Chiara Mussi; Piergiuseppe Colombo; Pierina Navarra; Annamaria Ascolese; Mauro Sollai; Luca Balzarini; Marta Scorsetti; Vittorio Quagliuolo; Armando Santoro
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IDENTIFICATION OF A NOVEL *BOC-PLAG1* FUSION GENE AND IMPORTANCE OF THE CYTOGENETIC APPROACH USING *PLAG1* IN THE DIAGNOSIS OF LIPOBLASTOMA.

Mitsuru Miyachi¹; Yoshihiro Nitta¹; Hideki Yoshida¹; Kazutaka Ouchi¹; Yasumichi Kuwahara¹; Kunihiko Tsuchiya¹; Tomoko Iehara¹; Eiichi Konishi²; Akio Yanagisawa²; Katsutsugu Umeda³; Takeshi Okamoto⁴; Hajime Hosoi¹

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INCIDENCE AND DEMOGRAPHICS OF GIANT CELL CONTAINING TUMORS IN THE NETHERLANDS: A NATIONWIDE PATHOLOGY DATABASE STUDY

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ANALYSIS OF PREOPERATIVE ADMINISTRATION OF DENOSUMAB FOR GIANT CELL TUMOR OF BONE

Michiro Susa; Kazutaka Kikuta; Kazumasa Nishimoto; Keisuke Horiuchi; Masaya Nakamura; Morio Matsumoto; Hideo Morioka

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GENE EXPRESSION ANALYSIS IDENTIFIES A POTENTIAL ROLE OF IMMUNE SYSTEM IN CTNNB1 MUTATED DESMOID TUMOR

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LOSS OF H3K27 TRI-METHYLATION IS A DIAGNOSTIC MARKER FOR MALIGNANT PERIPHERAL NERVE SHEATH TUMORS AND AN INDICATOR FOR AN INFERIOR SURVIVAL.

Arjen Cleven, MD, PhD⁴; Ghadah Al Sanna¹; Inge Briaire de Bruijn⁴; Davis Ingram¹; Matt van de Rijn³; Maurits de Vries²; Kelsey Watson¹; Keila E. Torres¹; Sjoerd van Duinen⁴; Pancras Hogendoorn⁴; Alexander J. Lazar¹; Judith Bovee⁴

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PROGNOSTIC FEATURES FOR SUCCESSFUL ACTIVE OBSERVATION OF DESMOID-TYPE FIBROMATOSIS

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DENOSUMAB IN PATIENTS WITH RESECTABLE GIANT CELL TUMOR OF BONE (GCTB): EFFECT ON SURGICAL DOWNSTAGING IN A "REAL WORLD" EXPERIENCE

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Yoshihiro Nishida, MD, PhD; Satoshi Tsukushi; Hiroshi Urakawa; Eiji Kozawa; Kunihiro Ikuta; Shunsuke Hamada; Naoki Ishiguro

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Chondrosarcoma

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INHIBITION OF BCL FAMILY MEMBERS SENSITIZES MESENCHYMAL CHONDROSARCOMA TO CONVENTIONAL CHEMOTHERAPY

Yvonne de Jong, MSc¹; Annemiek van Maldegem²; Adrian Marino-Enriquez³; Inge Briaire de Bruijn¹; Alwine Kruisselbrink¹; Anne-Marie Cleton-Jansen¹; Hans Gelderblom²; Jonathan A. Fletcher³; Judith Bovee¹
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MUTANT IDH DYSREGULATES THE DIFFERENTIATION PROPERTY OF HUMAN MESENCHYMAL STEM CELLS THROUGH GENE-SPECIFIC EPIGENETIC MODIFICATION

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SUPPRESSION OF HYALURONAN SYNTHESIS INHIBITS TUMORIGENICITY OF CHONDROSARCOMA IN VITRO AND IN VIVO

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THE EFFECT OF CHEMOTHERAPY ON OUTCOME IN PATIENTS WITH DEDIFFERENTIATED CHONDROSARCOMA DEMONSTRATING OSTEOSARCOMATOUS DIFFERENTIATION

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DEPLETING CHOLESTEROL, DEPLETING CHONDROSARCOMA.

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IN VITRO STUDIES DO NOT IDENTIFY A CRITICAL ROLE FOR THE IGF PATHWAY IN CHONDROSARCOMA GROWTH

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METASTATIC POTENTIAL OF ATYPICAL CARTILAGINOUS TUMOR/GRADE I CHONDROSARCOMA OF BONE - RESULTS OF A MULTI-INSTITUTIONAL STUDY

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NR4A3 CHIMERAS PLAY A KEY ROLE IN SENSITIZING EXTRASKELETAL MYXOID CHONDROSARCOMA CELLS TO ANTI-ANGIOGENETICS

Monica brencà¹; Irene Soncin¹; Dominga Racanelli¹; Sabrina Rossi²; Maria A. Pantaleo³; Alex Gronchi⁴; Paolo G. Casali⁴; Angelo P. Dei Tos²; Silvana Pilotti⁴; Silvia Stacchiotti⁴; Roberta Maestro¹

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PEDIATRIC CHONDROSARCOMAS: THE RIZZOLI INSTITUTE EXPERIENCE

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TARGETING SURVIVIN AS A POTENTIAL NEW TREATMENT FOR CHONDROSARCOMA OF BONE

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TRABECTIDIN: AN ACTIVE AGENT IN THE TREATMENT OF MESENCHYMAL CHONDROSARCOMA

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TREATMENT WITH A SMALL MOLECULE IDH1-MUTANT INHIBITOR SUPPRESSES TUMORIGENIC ACTIVITY AND DECREASES PRODUCTION OF THE ONCOMETABOLITE 2-HYDROXYGLUTARATE IN HUMAN CHONDROSARCOMA CELLS

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ONCOLOGIC OUTCOMES FOR YOUNGER PATIENTS WITH CHONDROSARCOMA

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IRREVERSIBLE ELECTROPORATION IN THE TREATMENT OF RECURRENT SACRAL EWING SARCOMA: A CASE REPORT**Kacie Steinbrecher, BA**¹; *Destiny Hause*¹; *Amanda Ross*¹; *Daniel Urkov*¹; *Bulent Arslan*²; *Paul Kent*¹¹*Pediatric Oncology, Rush University Medical Center, Chicago, IL, USA;* ²*Interventional Radiology, Rush University Medical Center, Chicago, IL, USA*

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VALUE OF RECOMMENDATIONS OF THE INTERDISCIPLINARY TUMOUR BOARD OF THE CESS GROUP ON THE OUTCOME IN PATIENTS TREATED WITHIN THE EUROEWING99 TRIAL.**Uta T. Dirksen, Professor**¹; *Justus Kreyer*¹; *Michael Paulussen*²; *Heribert Juergens*¹; *Volker Vieth*³; *Sergiu Scobioala*⁴; *Jendrik Harges*⁵; *Arne Streitbürger*⁶; *Karsten Wiebe*⁶; *Andreas Ranft*¹¹*Pediatric Hematology and Oncology, University Hospital Münster, Münster, Germany;* ²*Pediatric Hematology and Oncology, Vestische Kinder- und Jugendklinik Datteln, Datteln, Germany;* ³*Radiology, University Hospital Münster, Münster, Germany;* ⁴*Department of Radiooncology and Radiotherapy, University Hospital Münster, Münster, Germany;* ⁵*Orthopedics, University Hospital Münster, Münster, Germany;* ⁶*Thoracic Surgery, University Hospital Muenster, Münster, Germany*

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VINCRIStINE, DOXORUBICIN, AND IFOSFAMIDE (VAI) FOR INITIAL TREATMENT OF EWING SARCOMA IN ADULTS**Michael J. Wagner, MD**¹; *J. Andrew Livingston*¹; *Vinod Ravi*²; *Vancheswaran Gopalakrishnan*²; *Shreyaskumar Patel*²; *Alexander J. Lazar*³; *Joseph Ludwig*²; *Robert S. Benjamin*²¹*Cancer Medicine, UT MD Anderson Cancer Center, Houston, TX, USA;* ²*Sarcoma Medical Oncology, UT MD Anderson Cancer Center, Houston, TX, USA;* ³*Pathology, UT MD Anderson Cancer Center, Houston, TX, USA*

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CLINICAL IMPACT OF BONE MARROW MICROMETASTATIC DISEASE BURDEN DETECTED BY FLOW CYTOMETRY IN PATIENTS WITH EWING SARCOMA**Kieuhoa Vo, MD MAS**¹; *Lorrie Epling*⁶; *Elizabeth Sinclair*⁶; *Douglas Hawkins*²; *Holcombe E. Grier*³; *Katherine Janeway*³; *Phillip Barnette*⁴; *Don A. Barkauskas*⁵; *Katherine Matthey*¹; *Stephen L. Lessnick*⁴; *Steven DuBois*¹¹*Pediatrics, UCSF Benioff Children's Hospital, University of California, San Francisco, San Francisco, CA, USA;* ²*Hematology/Oncology, Seattle Children's Hospital, University of Washington, Seattle, WA, USA;* ³*Pediatrics, Boston Children's Hospital/Dana-Farber Cancer Institute, Boston, MA, USA;* ⁴*Pediatric Hematology/Oncology, Huntsman Cancer Institute, University of Utah, Salt Lake City, UT, USA;* ⁵*Preventative Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA, USA;* ⁶*Experimental Medicine Core Immunology Laboratory, University of California, San Francisco, San Francisco, CA, USA*

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LOCAL CONTROL OF UNRESECTABLE RELAPSED SARCOMA WITH MINIMALLY INASIVE ABLATIVE THERAPIES IN CHILDREN AND YOUNG ADULTS: FIVE CASES**Destiny Hause**; *Amanda Ross*; *Kacie Steinbrecher*; *Bulent Arslan*; *Paul Kent**Rush University Medical Center, Chicago, IL, USA*

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RECEPTOR TYROSINE KINASE GENE EXPRESSION PATTERNS IN EWING SARCOMAS REVEAL ROR1 AS POTENTIAL THERAPEUTIC TARGET IN METASTATIC DISEASE**Amelie Tillmanns**¹; *Philipp Berning*¹; *Eberhard Korsching*²; *Birgit Lechtape*¹; *Christiane Schaefer*¹; *Karl Ludwig Schäfer*³; **Uta T. Dirksen**¹; **Jenny C. Potratz**¹¹*University Children's Hospital Münster, Münster, Germany;* ²*Institute of Bioinformatics, Westfälische Wilhelms-Universität Münster, Münster, Germany;* ³*Department of Pathology, University Hospital Düsseldorf, Düsseldorf, Germany*

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THE PRC1 PROTEIN RING1B CONTRIBUTES TO EWING SARCOMA TUMORIGENESIS BY BLOCKING THE NAV1.6 SODIUM CHANNEL AND MODULATING THE NF- κ B PATHWAY, INDEPENDENTLY OF THE FUSION ONCOPROTEIN

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TRANSLATIONAL OUTCOMES FROM A BAYESIAN PHASE II BIOMARKER TRIAL OF LINSITINIB (OSI-906) DUAL ANTI-IGF1R/IR KINASE INHIBITOR IN RELAPSED OR REFRACTORY EWING SARCOMA (EUROSARC-EORTC-1225-OCTO_038-STBSG)

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HARNESSING BIOINFORMATICS TO IDENTIFY NOVEL TARGETS FOR SARCOMA IMMUNOTHERAPY

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IDENTIFICATION OF EWS-FLI1-SYNTHETIC LETHAL THERAPEUTIC TARGETS IN EWING SARCOMA IN A POOLED SHRNA SCREENING APPROACH

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SELECTIVE INHIBITION OF BET BROMODOMAIN EPIGENETIC SIGNALING INTERFERES WITH EWS-FLI1 EXPRESSION IN EWING SARCOMA

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GIST

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SECRETOME PROTEIN SIGNATURE OF HUMAN GASTROINTESTINAL STROMAL TUMOR CELLS

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CLINICOPATHOLOGICAL IMPACT OF PROTEIN PHOSPHATASE 2, REGULATORY SUBUNIT A, ALPHA MUTATIONS IN GASTROINTESTINAL STROMAL TUMORS

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COMBINED KIT AND CTLA-4 BLOCKADE IN PATIENTS WITH REFRACTORY GIST AND OTHER ADVANCED SARCOMAS: A PHASE IB STUDY OF DASATINIB PLUS IPILIMUMAB (NCI #9172)

Sandra P. D'Angelo¹; Alexander N. Shoushtari¹; Mary L. Keohan¹; Mark A. Dickson¹; Mrinal Gounder¹; Ping Chi¹; Amir Bhuiyana¹; Joseph P. Erinjeri¹; Mark J. Bluth¹; Mercedes Condy¹; Howard Streicher²; Gary K. Schwartz³; Ronald Dematteo¹; Richard D. Carvajal³; William D. Tap¹

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KCTD12 MAY BE NEGATIVELY REGULATED BY KIT IN GASTROINTESTINAL STROMAL CELL TUMORS

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PLX9486 SHOWS ANTI-TUMOR EFFICACY IN A PATIENT-DERIVED GASTROINTESTINAL STROMAL TUMOR (GIST) XENOGRAFT MODEL RESISTANT TO STANDARD TYROSINE KINASE INHIBITORS (TKI)

Yemarshe K. Gebreyohannes¹; **Agnieszka Wozniak, PhD**¹; Jasmien Wellens¹; Jasmien Cornillie¹; Gaston Habets²; Jack Lin²; Adhirai Marimuthu²; Maria Debiec-Rychter³; Raf Sciote⁴; Patrick Schöffski¹

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PREDICTING RESPONSE TO SECOND-LINE SUNITINIB (SU) BASED ON DURATION OF TREATMENT ON FRONT-LINE IMATINIB (IM) IN PATIENTS WITH METASTATIC GIST

Daniela Katz¹; Heather Lin²; Nikki Weaver³; Jonathan Trent⁴; Ariel Hammerman, PhD⁵; Ilan Feldhamer⁶; Dejka Araujo³; Vinod Ravi³; Anthony Conley³; Wei-Lien Wang⁶; Alexander Lazar⁶; Shreyaskumar Patel³; Robert Benjamin³; Neeta Somaiah³

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PROTEOMICS AND TRANSCRIPTOMICS IDENTIFIED PROMYELOCYTIC LEUKEMIA (PML) AS A NOVEL PROGNOSTIC BIOMARKER IN GASTROINTESTINAL STROMAL TUMOR

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EFFECTS OF SINGLE, DOUBLE OR TRIPLE COMBINATIONS OF IMATINIB, CHLOROQUINE AND ABT-737 ON GASTROINTESTINAL STROMAL TUMOR T1 CELLS

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EPIDEMIOLOGY OF MALIGNANT GASTROINTESTINAL STROMAL TUMORS SMALLER THAN 2 CM IN THE UNITED STATES

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GENE EXPRESSION IDENTIFIES HETEROGENEITY OF METASTATIC BEHAVIOR AMONG GASTROINTESTINAL STROMAL TUMORS (GIST)

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PAZOPANIB AS THIRD LINE TREATMENT IN ADVANCED GIST PROGRESSIVE AFTER TREATMENT WITH IMATINIB AND SUNITINIB – RESULTS FROM A PHASE II TRIAL (SSG XXI, PAGIST)

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THE ANALYSIS OF THE OUTCOMES OF SORAFENIB THERAPY IN ROUTINE PRACTICE IN IMATINIB AND SUNITINIB RESISTANT GASTROINTESTINAL STROMAL TUMORS (GIST) - CAN SORAFENIB BE A SUBSTITUTE OF REGORAFENIB IN THE THIRD LINE THERAPY OF ADVANCED GIST?

Piotr Rutkowski, MD, PhD; Jolanta Andrzejuk; Elzbieta Bylina; Anna Klimczak; Iwona Lugowska; Tomasz Switaj;

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Nontranslocation Associated Sarcomas NOS

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GERMLINE MUTATION IN *SMARCB1*, A SUBUNIT OF THE SWI/SNF CHROMATIN REMODELING COMPLEX, IN A SCHWANNOMATOSIS FAMILY WITH RHABDOID TUMORS AND MULTIPLE SCHWANNOMAS

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Poster 063 2325003

IMPLICATIONS OF STAGED RECONSTRUCTION AND ADJUVANT BRACHYTHERAPY IN THE TREATMENT OF RECURRENT SOFT TISSUE SARCOMA

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IS RADIATION WORTH THE RISK FOR DIFFUSE LARGE B-CELL LYMPHOMA IN THE ERA OF CHOP-R THERAPY?

Nicholas M. Bernthal, MD²; William Mendanha¹; Kamalesh k. Sankhala¹; Jeanny Hu¹; Bryan Leong¹; Imran Syed¹; Sherif Richman³; Scott Nelson⁴; Lawrence Menendez⁵; Earl W. Brien⁶; Neal S. Chawla¹; Mark A. Eckardt³; Jeong-Hyun Kim¹; Victoria S. Chua-Alcala¹; Sant P. Chawla¹

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MULTIPLE LINES OF CHEMOTHERAPY IN METASTATIC AND LOCALLY ADVANCED SOFT TISSUE SARCOMA (STS)

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ONCOLOGICAL AND FUNCTIONAL OUTCOME FOLLOWING SURGICAL RESECTION OF SACRAL CHORDOMA

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PARATESTICULAR RHABDOMYOSARCOMA IN CHILDREN: THE RESULTS OF A POPULATION-BASED ANALYSIS

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PRESERVATION OF THE GLUTEUS MAXIMUS BLOOD FLOW REDUCES POSTOPERATIVE COMPLICATIONS AFTER PELVIC TUMOR RESECTION

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PRIMARY OSSEOUS LEIOMYOSARCOMA: A COMPARISON WITH ITS SOMATIC SOFT-TISSUE COUNTERPART

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SURGICAL TREATMENT FOR LOCALIZED DEDIFFERENTIATED LIPOSARCOMA: 64 CASES AT A SINGLE INSTITUTION

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THE VARIABILITY IN SURGICAL MARGIN REPORTING IN LIMB SALVAGE SURGERY FOR SARCOMA

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USP6 AMPLIFICATION: A NOVEL ONCOGENIC MECHANISM IN MALIGNANT NODULAR FASCIITIS

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A PHASE 1B/2 STUDY OF ALDOXORUBICIN + IFOSFAMIDE/MESNA IN UNTREATED SARCOMA PATIENTS

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A PHASE II STUDY OF ORAL ENMD-2076 IN ADVANCED SOFT TISSUE SARCOMA (STS)

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ACTIVATING FGFR4 MUTATIONS IN RHABDOMYOSARCOMA ALTER PI3K AND STAT3 SIGNALING

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ANALYSIS OF BOWEL BAG (BB) DOSE-VOLUME PARAMETERS AND ACUTE GASTROINTESTINAL (GI) TOXICITY DURING PRE-OPERATIVE (PRE-OP) RADIOTHERAPY (RT) FOR RETROPERITONEAL SARCOMA (RPS)

John G. Phillips¹; Kimberley Mak¹; Constance Barysaukas²; Liam Vanbenthuyssen³; Leslie Lee⁴; Edward Mannarino²; Thomas F. DeLaney³; **Elizabeth H. Baldini²**

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AUTOPHAGY ONSET BY ARGININE DEPRIVATION REDIRECTS GLUCOSE FROM AEROBIC GLYCOLYSIS TO SERINE BIOSYNTHESIS

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CARDIAC SAFETY PROFILE OF PATIENTS RECEIVING HIGH CUMULATIVE DOSES OF PEGYLATED-LIPOSOMAL DOXORUBICIN (PLD); USE OF LEFT VENTRICULAR EJECTION FRACTION (EF)

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CHARACTERIZATION OF THE IMMUNE STATE OF MPNST BY PD-L1 AND CD8 EXPRESSION

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CLINICAL OUTCOME OF PAZOPANIB FOR LIPOSARCOMA PATIENTS FROM POST-MARKETING SURVEILLANCE SUB-ANALYSIS

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CORRELATION BETWEEN LIVER TESTS ABNORMALITIES AND PAZOPANIB EFFICACY IN THE TREATMENT OF SOFT TISSUE SARCOMA

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DINACICLIB ALTERS CELL CYCLE DYNAMICS AND INDUCE CELL DEATH IN SOFT TISSUE SARCOMAS

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DYNAMIC VARIATION AND PROGNOSTIC VALUE OF TUMOR INFILTRATING IMMUNE CELLS, PDL1, IDO AND KYNURENE EXPRESSION IN LOCALISED SOFT TISSUE SARCOMA TREATED WITH NEOADJUVANT CHEMOTHERAPY

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EVIDENCE OVER TIME: HAS THE MUSCULOSKELETAL TUMOR SOCIETY MOVED TOWARDS HIGHER LEVEL OF EVIDENCE?

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FORTY YEARS OF RANDOMIZED TRIALS IN ADVANCED/METASTATIC SOFT TISSUE SARCOMA (STS): ENDPOINTS SELECTION, SURROGACY AND QUALITY OF REPORTING

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HENT1 EXPRESSION IN ANGIOSARCOMA AND LEIOMYOSARCOMA, AND EXPLORATORY ANALYSIS AS A PREDICTOR OF EFFICACY TO GEMCITABINE

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MDM2 LEVELS IN DEDIFFERENTIATED LIPOSARCOMA CORRELATE WITH MDM2 SENSITIVITY TO DOXORUBICIN AND MDM2 INHIBITORS ARE COOPERATIVE WITH DOXORUBICIN

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MYXOFIBROSARCOMA: RESPONSE TO CHEMOTHERAPY

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OLDER AGE MODIFIES ONCOLOGIC OUTCOMES FOLLOWING RADIOTHERAPY IN SOFT TISSUE SARCOMA PATIENTS UNDERGOING SURGERY: A SUBTYPE-SPECIFIC ANALYSIS

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PARADOXICAL EXPANSION OF SARCOMA CANCER STEM CELLS FOLLOWING LOW DOSE SORAFENIB

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PHASE II STUDY OF PAZOPANIB IN PATIENTS WITH ADVANCED INTERMEDIATE OR HIGH-GRADE LIPOSARCOMA

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PRECLINICAL EVALUATION OF THE RECOMBINANT HUMAN ARGINASE PEG-BCT-100 IN SARCOMAS

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PROTEOMIC ANALYSIS OF BENIGN AND MALIGNANT PERIPHERAL NERVE TUMORS FROM FORMALIN-FIXED, PARAFFIN-EMBEDDED TISSUE

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QUANTITATIVE DYNAMIC CONTRAST-ENHANCED (DCE) MRI PREDICTS RESPONSE TO PREOPERATIVE THERAPY IN EXTREMITY SOFT TISSUE SARCOMA (STS)

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SOFT TISSUE SARCOMAS ABUTTING THE FEMUR: DOES BONE RESECTION IMPROVE THE ONCOLOGICAL OUTCOME?

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TARGETING PI3K/MTOR IN RHABDOMYOSARCOMA WITH FGFR4 MUTATIONS

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THE ANTI-PLATELET-DERIVED GROWTH FACTOR RECEPTOR ALPHA ANTIBODY OLARATUMAB (LY3012207/IMC-3G3) IN COMBINATION WITH CHEMOTHERAPY INHIBITS THE GROWTH OF SOFT TISSUE SARCOMA AND OSTEOSARCOMA PATIENT-DERIVED XENOGRAPHS

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TRABECTEDIN IN ADVANCED CHORDOMA

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VENOUS THROMBOEMBOLIC EVENTS (VTE) IN SARCOMA PATIENTS: RETROSPECTIVE ANALYSIS OF AN INSTITUTIONAL DATABASE

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A RANDOMIZED CONTROLLED PHASE-3 STUDY OF TRABECTEDIN (T) OR DACARBAZINE (D) FOR THE TREATMENT OF PATIENTS (PTS) WITH ADVANCED LEIOMYOSARCOMA (LMS) OR LIPOSARCOMA (LPS): FINAL OVERALL SURVIVAL (OS) ANALYSIS

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AUTOPHAGY INDUCES CHANGES IN THE SARCOMA KINOME AND PHOSPHOPROTEOME IN RESPONSE TO ARGinine STARVATION

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BLOOD TRANSFUSION VOLUME AND DURATION OF ANESTHESIA INFLUENCE MORTALITY AND POSTOPERATIVE COMPLICATIONS IN SURGICAL TREATMENT FOR SARCOMA IN LIMBS AND PELVIS

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COMPARATIVE ANALYSIS OF WOUND CLOSURE METHOD FOLLOWING ADJUVANT BRACHYTHERAPY FOR RECURRENT SOFT TISSUE SARCOMA

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DEVELOPMENT OF A GENETIC SIGNATURE TO PREDICT RISK FOR RECURRENCE FOR SOFT TISSUE SARCOMA

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EFFICACY AND SAFETY OF TRABECTEDIN AS AN EARLY TREATMENT FOR ADVANCED STS: AN INTERIM ANALYSIS OF A NON-INTERVENTIONAL, PROSPECTIVE PHASE IV STUDY

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GENOME-WIDE MISTARGETING OF ONCOGENIC SWI/SNF(BAF) COMPLEXES IN SMARCB1-DEFICIENT SARCOMAS**Robert Nakayama, MD, PhD¹**; Robert T. Williams²; Seth H. Cassel²; Mingxiang Teng³; Rafael A. Irizarry³; George D. Demetri¹; Cigall Kadoch²¹Medical Oncology, Dana-Farber Cancer Institute, Boston, MA, USA; ²Pediatric Oncology, Dana-Farber Cancer Institute, Boston, MA, USA; ³Department of Biostatistics and Computational Biology, Dana-Farber Cancer Institute, Boston, MA, USA

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IDENTIFYING ACTIONABLE MUTATIONS USING NEXT GENERATION SEQUENCING IN UNDIFFERENTIATED PLEOMORPHIC SARCOMA**Jeremy Lewin, MBBS FRACP¹**; Frank Traub¹; Nalan Gokgoz²; Brendan C. Dickson¹; Anthony M. Griffin¹; Peter Ferguson¹; Irene L. Andrulis²; Jay Wunder¹; Albiruni R. Razak¹¹Sarcoma Program, Mount Sinai Hospital, Toronto, ON, Canada; ²Lunenfeld-Tenanbaum Research Institute, Toronto, ON, Canada

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IMPACT OF PREOPERATIVE THERAPIES IN LOCALIZED MYXOFIBROSARCOMA**Marco Fiore, MD¹**; Chiara Colombo¹; Roberta Sanfilippo²; Stefano Radaelli¹; Claudia Sangalli³; Carlo Morosi⁴; Dario Callegaro¹; Andrea Fontana¹; Silvia Stacchiotti²; Paolo G. Casali²; Alessandro Gronchi¹¹Dept. of Surgery, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; ²Dept. of Cancer Medicine, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; ³Dept. Radiation Therapy, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; ⁴Dept. of Radiology, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy

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MODELING THE TUMOR MICROENVIRONMENT IN SARCOMAS: THE IMPACT ON MPNST BIOLOGY AND CHEMOTHERAPY RESPONSE**Rebecca Dodd**; Chang-Lung Lee; Mary Overton; William C. Eward; Yan Ma; Diana M. Cardona; David G. Kirsch
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MOUSE CLINICAL TRIALS: INTEGRATING PDX MODELS OF SARCOMA WITH GENOMICS TO REPLICATE PATIENT RESPONSES TO CANCER THERAPEUTICS**Amanda Katz¹**; Raphael Pollock²; Leonard H. Wexler³; Carlos Rodriguez-Galindo⁴; Jonathan C. Trent⁵; Robert G. Maki⁶; Daniel Ciznadija¹; Angela Davies¹; **Keren Paz¹**¹Champions Oncology, Hackensack, NJ, USA; ²Ohio State University Medical Center, Columbus, OH, USA;³Memorial Sloan-Kettering Cancer Center, New York, NY, USA; ⁴Dana-Farber Cancer Institute, Boston, MA, USA;⁵University of Miami Hospital, Miami, FL, USA; ⁶Mount Sinai School of Medicine, New York, NY, USA

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PREOPERATIVE RADIATION THERAPY COMBINED WITH RADICAL SURGICAL RESECTION IS ASSOCIATED WITH A LOWER RATE OF LOCOREGIONAL RECURRENCE WHEN TREATING PRIMARY RETROPERITONEAL LIPOSARCOMA**George Molina, MD, MPH²**; Melissa A. Hull³; Yen-Lin Chen⁴; Thomas F. DeLaney⁴; Karen De Amorim Bernstein⁴; Edwin Choy⁵; Gregory M. Cote⁵; David Harmon⁵; John T. Mullen¹; Alex B. Haynes¹²Surgery, Massachusetts General Hospital, Boston, MA, USA; ³Division of Surgical Oncology, Virginia Commonwealth University School of Medicine, Richmond, VA, USA; ⁴Radiation Oncology, Massachusetts General Hospital, Boston, MA, USA; ⁵Hematology and Oncology, Massachusetts General Hospital, Boston, MA, USA

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PRIMARY ARTHROPLASTY IN HEALED OSTEOARTICULAR ALLOGRAFTS IN PATIENTS WITH HISTORY OF PRIMARY FEMORAL BONE TUMORS**Nuno Rui Cools Paulino Pereira**; Bianca M. Verbeek; Christine Park; Santiago Lozano-Calderon
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PROGNOSTIC FACTORS FOR RESPONSE OF SOFT TISSUE SARCOMA TO CHEMOTHERAPY - AN ANALYSIS OF THE EORTC 62012 STUDY

Robin J. Young¹; Saskia Litiere²; Michela Lia²; Christina Messiou³; Viktor Gruenwald⁴; Alessandro Gronchi⁵; Winette Van der Graaf⁶; Eva Wardelmann⁷; Ian Judson³

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RESULTS OF THE JAPAN RHABDOMYOSARCOMA STUDY GROUP JRS-I LRB0402 PROTOCOL, USING VINCRISTINE, DACTINOMYCIN AND CYCLOPHOSPHAMIDE AND RADIATION THERAPY, FOR LOW-RISK EMBRYONAL RHABDOMYOSARCOMA

Hajime Hosoi, MD, PhD¹; Hiroshi Hojo²; Hajime Okita⁴; Atsuko Nakazawa³; Jun-Ichi Hata⁵; Hidekazu Masaki⁶; Miwako Nozaki⁷; Toshinori Soejima⁸; Hitoshi Ikeda⁹; Keizo Horibe¹⁰; Jun-Ichi Hara¹¹; Tetsuya Takimoto¹²; Mitsuru Miyachi¹; Satoshi Teramukai¹³; Yasuhide Morikawa¹⁴

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SARC023: PHASE I/II TRIAL OF GANETESPIB IN COMBINATION WITH SIROLIMUS FOR REFRACTORY SARCOMAS INCLUDING MALIGNANT PERIPHERAL NERVE SHEATH TUMORS (MPNST)

AeRang Kim, MD, PhD¹; Scott H. Okuno²; Denise Reinke³; Vesna Milacic³; Karen Cichowski⁴; Thomas DeRaedt⁴; Perentesis John⁵; Sant Chawla⁶; Seth Steinberg⁷; Brigitte Widemann⁷

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THE RISK OF RHABDOMYOSARCOMA AMONG CHILDREN WITH BIRTH DEFECTS: AN EPIDEMIOLOGIC ASSESSMENT AND META-ANALYSIS

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TRABECTEDIN IN ELDERLY PATIENTS WITH RECURRENT SOFT TISSUE SARCOMA (STS): AN INTERIM ANALYSIS OF A NON-INTERVENTIONAL, PROSPECTIVE PHASE IV STUDY

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UPDATED OUTCOME AND ANALYSIS OF TUMOR RESPONSE IN MOBILE SPINE AND SACRAL CHORDOMA TREATED WITH DEFINITIVE HIGH DOSE PHOTON/PROTON RADIOTHERAPY**Peyman Kabolizadeh, MD, PhD¹**; Yen-Lin Chen¹; Norbert Liebsch¹; Francis J. Hornicek²; Joseph H. Schwab²; Edwin Choy³; Daniel Rosenthal⁴; Thomas F. DeLaney¹¹Radiation Oncology, Harvard/MGH, Boston, MA, USA; ²Orthopaedic Surgery, Harvard/MGH, Boston, MA, USA;³Medical Oncology, Harvard/MGH, Boston, MA, USA; ⁴Radiology, Harvard/MGH, Boston, MA, USA

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WHOLE EXOME SEQUENCING REVEALS THE TEMPORAL SEQUENCE OF GENETIC CHANGES DURING MALIGNANT TRANSFORMATION AND METASTASIS IN A SINGLE PATIENT WITH NF1-ASSOCIATED PLEXIFORM NEUROFIBROMA**Angela C. Hirbe, MD, PhD¹**; Sonika Dahiya²; Christopher Miller³; Tiandao Li³; Robert Fulton³; Sandra McDonald²; Katherine DeSchryver²; Eric Duncavage²; Jessica Walrath⁴; Karylne Reilly⁴; Haley Abel⁵; Melike Pekmezci⁶; Arie Perry⁶; Tim Ley⁷; David Gutmann⁸¹Medical Oncology, Washington University in St Louis, Saint Louis, MO, USA; ²Pathology, Washington University inSt Louis, Saint Louis, MO, USA; ³The Genome Institute, Washington University in St Louis, Saint Louis, MO, USA;⁴Rare Tumors Initiative, National Cancer Institute, Bethesda, MD, USA; ⁵Division of Statistical Genomics, WashingtonUniversity in St Louis, Saint Louis, MO, USA; ⁶Pathology, UCSF School of Medicine, San Francisco, CA, USA;⁷Department of Genetics, The Genome Institute, Washington University in St Louis, Saint Louis, MO, USA;⁸Neurology, Washington University in St Louis, Saint Louis, MO, USA

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Y-IMAGE STUDY: A NON-INTERVENTIONAL, PROSPECTIVE PHASE IV STUDY OF TRABECTEDIN IN PATIENTS WITH ADVANCED SOFT TISSUE SARCOMA (STS)**Nicolas Penel¹**; Angela Buonadonna²; Charlotte Benson³; Jose Casanova⁴; Bernd Kasper⁵; José Alberto Nadal⁶; Antonio Lopez-Pousa⁷; Filomena Mazzeo⁸; Brodowicz Thomas⁹¹Centre Oscar Lambret, 3, rue F Combemale, Lille, France; ²IRCCS - C.R.O. Centro di Riferimento Oncologico di AvianoVia Franco Gallini, Aviano, Italy; ³Royal Marsden Hospital, London, United Kingdom; ⁴Centro Hospitalar e Universitário deCoimbra, EPE - CHUC, Coimbra, Portugal; ⁵University of Mannheim, Mannheim, Germany; ⁶PharmaMar, Madrid, Spain;⁷Hospital de la Santa Creu i Sant Pau, Barcelona, Spain; ⁸L'Institut Roi Albert II, Bruxelles, Belgium; ⁹Medical University

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A PHASE I STUDY TO DETERMINE THE SAFETY OF GLUCOPYRANOSYL LIPID A STABLE EMULSION (G100) COMBINED WITH RADIATION IN PATIENTS WITH ADVANCED SARCOMA**Seth M. Pollack, MD¹**; Edward Y. Kim²; Ernest U. Conrad³; Ryan B. O'Malley⁴; Sara Cooper¹; Elizabeth T. Loggers¹; Darin Davidson³; Lynn Bonham⁵; Venu G. Pillarisetty⁶; Gabrielle Kane²; Stanley R. Riddell¹; Robin L. Jones⁷¹Clinical Research, Fred Hutchinson Cancer Research Center, Seattle, WA, USA; ²Radiation Oncology, University ofWashington, Seattle, WA, USA; ³Orthopedics, University of Washington, Seattle, WA, USA; ⁴Radiology, University ofWashington, Seattle, WA, USA; ⁵Seattle Cancer Care Alliance, Seattle, WA, USA; ⁶Surgery, University of Washington,Seattle, WA, USA; ⁷Royal Marsden NHS Foundation Trust, London, United Kingdom

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AVOIDING RADIATION THERAPY (RT) IN HIGH-RISK SOFT TISSUE SARCOMA (STS) OF ESTREMITY AND TRUNK WALL: A RETROSPECTIVE ANALYSIS FROM RECENT YEARS**Marco Fiore, MD¹**; Chiara Colombo¹; Claudia Sangalli²; Elena Palassini³; Stefano Radaelli¹; Carlo Morosi⁴; Dario Callegaro¹; Andrea Fontana¹; Paolo G. Casali³; Alessandro Gronchi¹¹Dept. of Surgery, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; ²Dept. of Radiation Therapy, FondazioneIRCCS Istituto Nazionale dei Tumori, Milan, Italy; ³Dept. of Cancer Medicine, Fondazione IRCCS Istituto Nazionale deiTumori, Milan, Italy; ⁴Dept. of Radiology, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy

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COMBINING RADIATION WITH AGENTS THAT TARGET VEGF-A AND TUMOR HYPOXIA PREVENTS SARCOMA GROWTH BY DISRUPTING TUMOR VASCULATURE AND THE HYPOXIC TUMOR RESPONSE

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COST-EFFECTIVENESS OF SARCOMA RADIOTHERAPY: RESULTS OF A 5-YEAR COST-EFFECTIVENESS ANALYSIS OF IMRT VS. 3DCRT FOR EXTREMITY SOFT-TISSUE SARCOMAS

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CROSS-CULTURAL ADAPTATION AND VALIDATION OF THE KOREAN TORONTO EXTREMITY SALVAGE SCORE FOR EXTREMITY SARCOMA

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DISCREPANCY OF PD-L1 EXPRESSION BETWEEN PRIMARY AND METASTATIC SARCOMAS, AND ITS IMPACT ON CLINICAL OUTCOME

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EARLY PREDICTION OF LUNG METASTASES IN SOFT-TISSUE SARCOMAS OF THE EXTREMITIES USING FDG-PET AND MRI TEXTURAL FEATURES

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EFFICACY AND SAFETY OF TRABECTEDIN (T) OR DACARBAZINE (D) IN ADVANCED LEIOMYOSARCOMA (LMS) OR LIPOSARCOMA (LPS) AFTER PRIOR CHEMOTHERAPY: ELDERLY PATIENT (AGE ≥65 YEARS) SUBGROUP ANALYSIS

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HYPOXIA INDUCED GENE-PROFILE IN SARCOMA PATIENTS: A NEW PROGNOSTIC MARKER

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IMPACT OF SURGICAL MARGIN ON SURVIVAL IN EXTREMITY SOFT TISSUE SARCOMA: A SYSTEMATIC REVIEW AND META-ANALYSIS

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LOCALLY RECURRENT SOFT TISSUE SARCOMA: OUTCOMES WITH RE-IRRADIATION AND/OR SURGICAL EXCISION

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MOLECULAR CHARACTERIZATION OF DESMOID TUMORS

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POST-RELAPSE OUTCOME OF PATIENTS (PTS) WITH LOCALIZED RETROPERITONEAL SARCOMA (RPS) TREATED ON ITALIAN SARCOMA GROUP-SOFT TISSUE SARCOMA (ISG-STTS) PROTOCOL 0303: AN UPDATE

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PROGNOSTIC FACTORS AFTER "UNPLANNED" EXCISION OF PRIMARY LOCALIZED ADULT SOFT TISSUE SARCOMA OF THE EXTREMITIES

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THE IMPORTANCE OF CENTRAL PATHOLOGY REVIEW TO TRIAL OUTCOMES - AN ANALYSIS OF THE EORTC 62012 STUDY

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TRABECTEDIN (T) OR DACARBAZINE (D) FOR TREATMENT OF PATIENTS (PTS) WITH ADVANCED LEIOMYOSARCOMA (LMS) OR LIPOSARCOMA (LPS) AFTER PRIOR CHEMOTHERAPY: HISTOLOGY-SPECIFIC SUBGROUP ANALYSIS OF A RANDOMIZED PHASE-3 STUDY

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CONVENTIONAL EXTERNAL BEAM RADIATION THERAPY (EBRT) VS. INTENSITY MODULATED RADIATION THERAPY (IMRT) FOR NEOADJUVANT RADIATION OF RETROPERITONEAL SARCOMAS

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PET/CT IMAGING MIGHT BE SUPERIOR TO PERCUTANEOUS BIOPSY IN IDENTIFYING DEDIFFERENTIATION IN PATIENTS WITH WELL-DIFFERENTIATED (WDLS)/ DEDIFFERENTIATED LIPOSARCOMA (DDLs)

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RECURRENT CHORDOMAS: OUTCOMES AFTER SALVAGE TREATMENT

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IS LONG TERM SURVIVAL POSSIBLE FOR MARGIN POSITIVE RESECTION OF RETROPERITONEAL SARCOMA (RPS)?

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PTEN EXPRESSION IS A GOOD PROGNOSTIC MARKER IN MALIGNANT PERIPHERAL NERVE SHEATH TUMORS

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THE METABOLIC SIGNATURE OF SOFT TISSUE SARCOMA

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ONCOLOGIC OUTCOMES FOR PATIENTS WITH MYXOFIBROSARCOMA

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PRECLINICAL STUDY: HDAC INHIBITION COMBINED WITH GEMCITABINE FOR THE TREATMENT OF LEIOMYOSARCOMA

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ADAPTIVE RADIOTHERAPY FOR SOFT TISSUE SARCOMA

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HEALTH-RELATED QUALITY OF LIFE AND OUTCOMES OF PEDIATRIC PATIENTS WITH NON-METASTATIC OSTEOSARCOMA TREATED IN COUNTRIES WITH DIFFERENT RESOURCES

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NAVIGATED COMPLEX BONE TUMOR RESECTIONS IN THE HANDS OF NON-TUMOR SURGEONS A SKILL TRANSLATION STUDY

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OUTCOME OF RECURRENT OSTEOSARCOMA PATIENTS ENROLLED IN SEVEN PHASE II TRIALS THROUGH CCG, POG AND COG: LEARNING FROM THE PAST TO MOVE FORWARD

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PATIENT-DERIVED TUMOR XENOGRAFTS TO STUDY TUMOR HETEROGENEITY IN PEDIATRIC SARCOMAS

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POST-METASTASIS SURVIVAL IN HIGH-GRADE EXTREMITY OSTEOSARCOMA: ANALYSIS OF PROGNOSTIC FACTORS OF 126 PATIENTS

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PREVENTION OF INFECTIOUS COMPLICATIONS IN CHILDREN WITH BONE TUMORS AFTER THE ARTHROPLASTY

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SAFETY AND FEASIBILITY OF ALPHA PARTICLE RADIUM-223 DICHLORIDE THERAPY IN HIGH RISK OSTEOSARCOMA: A PHASE 1 DOSE ESCALATION TRIAL

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SMALL CELL OSTEOSARCOMA: THE MD ANDERSON CANCER CENTER EXPERIENCE**Hatel R. Moonat, DO¹**; Wei-Lien Wang²; Kenneth Hess³; Cindy L. Schwartz¹; Michaelle Moise⁴; Shreyaskumar Pate⁵; Robert S. Benjamin⁵; Valerae O. Lewis⁶; Alexander J. Lazar²; Najat C. Daw¹¹Pediatrics, University of Texas MD Anderson, Houston, TX, USA; ²Pathology, University of Texas MD Anderson, Houston, TX, USA; ³Biostatistics, University of Texas MD Anderson, Houston, TX, USA; ⁴Clinical Effectiveness, University of Texas MD Anderson, Houston, TX, USA; ⁵Sarcoma Medical Oncology, University of Texas MD Anderson, Houston, TX, USA; ⁶Orthopedic Oncology, University of Texas MD Anderson, Houston, TX, USA

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SOCIO-PHYSIOLOGICAL PROBLEMS FOR BONE AND SOFT TISSUE SARCOMA PATIENTS IN CHILDHOOD AND AYA GENERATION**Kanya Honoki, MD, PhD¹**; Yasufumi Takeshita²; Takashi Ishihara²; Toshiaki Shinomiya³; Akira Kido¹; Hiromasa Fujii¹; Shinji Tsukamoto¹; Yumiko Kondo¹; Shingo Kishi¹; Midori Shima²; Yasuhito Tanaka¹¹Department of Orthopedic Surgery, Nara Medical University, Kashihara, Japan; ²Department of Pediatrics, Nara Medical University, Kashihara, Nara, Japan; ³Palliative Care Center, Nara Medical University, Kashihara, Japan

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TRAIL-BASED THERAPEUTICS IN OSTEOSARCOMA: INVOLVEMENT OF BONE TUMOR MICROENVIRONMENT IN TRAIL RESISTANCE**Romain Guiho¹**; Kevin Biteau¹; Julien Taurelle¹; Valérie Trichet¹; Franck Tirode²; Dominique Heymann¹; **Françoise Rédini¹**¹INSERM UMR957, Nantes, France; ²Institut Curie, Paris, France

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USEFULNESS OF INCREASED 18F-FDG UPTAKE FOR DETECTING LOCAL RECURRENCE IN PATIENTS WITH EXTREMITY OSTEOSARCOMA TREATED WITH SURGICAL RESECTION AND ENDOPROTHETIC REPLACEMENT**Chang-Bae Kong**; Byung Hyun Byun; Sang Moo Lim

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WHOLE EXOME SEQUENCING IDENTIFIES CANDIDATE VARIANTS ASSOCIATED WITH PULMONARY METASTASIS OF PEDIATRIC OSTEOSARCOMA**Shintaro Iwata, MD¹**; Yasutoshi Tatsumi²; Tsukasa Yonemoto¹; Hiroto Kamoda¹; Takeshi Ishii¹; Hiroki Nagase³; Miki Ohira⁴¹Division of Orthopaedic Surgery, Chiba Cancer Center, Chiba, Japan; ²Laboratory of Cancer Genomics, Chiba Cancer Center Research Institute, Chiba, Japan; ³Chiba Cancer Center Research Institute, Chiba, Japan; ⁴Research Institute for Clinical Oncology, Saitama Cancer Center, Saitama, Japan

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AOST1322: A PHASE II STUDY OF ERIBULIN IN RECURRENT OR REFRACTORY OSTEOSARCOMA**Michael Isakoff¹**; Robert Goldsby²; Doojduen Villaluna⁵; Mark D. Krailo⁸; Richard G. Gorlick³; John Doski⁷; Richard B. Womer⁶; Katherine Janeway⁴¹Connecticut Children's Medical Center, Hartford, CT, USA; ²University of California San Francisco, Benioff Children's Hospital, San Francisco, CA, USA; ³Department of Pediatrics, The Children's Hospital of Montefiore, Bronx, NY, USA; ⁴Dana-Farber/Boston Children's Cancer and Blood Disorders Center, Boston, MA, USA; ⁵Children's Oncology Group, Monrovia, CA, USA; ⁶The Children's Hospital of Philadelphia, University of Pennsylvania, Philadelphia, PA, USA; ⁷Department of Surgery/Pediatric Surgery Division, University of Texas Health Science Center, San Rosa Children's Hospital, San Antonio, TX, USA; ⁸Department of Preventive Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA, USA

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BIOLOGICAL EFFECTS OF CABOZANTINIB ON OSTEOSARCOMA-BONE MICROENVIRONMENT MODEL**Marco Fioramonti**; Valentina Fausti; Francesco Pantano; Michele Iuliani; Giulia Ribelli; Daniele Santini; Giuseppe Tonini; Bruno Vincenzi

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BLOCKAGE OF THE OSTEOSARCOMA MICROENVIRONMENT: ACTIVIN A INHIBITORS AND ZOLEDRONATE AS A NOVEL COMBINATION AGAINST OSTEOSARCOMA.

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CAN WE REVISE CEMENTED ENDOPROSTHESES?

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OUTCOME AND RESPONSE PREDICTION FOR PRIMARY AND OLIGOMETASTATIC SPINAL SARCOMA PATIENTS WHO RECEIVED STEREOTACTIC BODY RADIATION THERAPY (SBRT)

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PATIENTS OLDER THAN 40 YEARS WITH HIGH-GRADE BONE SARCOMA WITH SYNCHRONOUS METASTASES: RESULTS OF THE EUROPEAN BONE OVER 40 SARCOMA STUDY (EURO.B.O.S.S.)

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Wolfgang Berdel⁵; Virginia Ferraresi⁶; Gerlinde Egerer⁸; Rossella Bertulli⁹; Odd Monge⁷; Mathias Werner¹⁰;

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⁷University Hospital, Bergen, Norway; ⁸University Hospital, Heidelberg, Germany; ⁹Istituto Nazionale Tumori, Milano, Italy;

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SOCIOECONOMIC MEASURES INFLUENCE SURVIVAL IN OSTEOSARCOMA: AN ANALYSIS OF THE NATIONAL CANCER DATA BASE

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TAILORED POST-OPERATIVE THERAPY IN ADULT OSTEOSARCOMA PATIENTS WITH POOR NECROSIS: 30 YEARS OF TREATMENT AT MD ANDERSON CANCER CENTER

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TARGETING OF CXCR4/SDF-1 CHEMOKINE AXIS IN OSTEOSARCOMA METASTASIS

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TAXOTERE, AVASTIN, GEMCITABINE "TAG" CHEMOTHERAPY FOR HIGH RISK RELAPSED ADOLESCENT AND YOUNG ADULT (AYA) SARCOMA PATIENTS

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THE CLINICAL SIGNIFICANCE OF CHANGES IN EZRIN EXPRESSION IN OSTEOSARCOMA OF CHILDREN AND YOUNG ADULTS**Iwona A. Lugowska, MD PhD¹**; Ewa Mierzejewska²; Teresa Klepacka³; Elzbieta Michalak³; Malgorzata Lenarcik³; Irena Koch³; Piotr Rutkowski¹¹Maria Sklodowska Curie Memorial Cancer Centre, Warsaw, Poland; ²Epidemiology and Biostatistics, Institute of Mother and Child, Warsaw, Mazowieckie, Poland; ³Pathology, Institute of Mother and Child, Warsaw, Mazowieckie, Poland

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THE IMPACT OF INTERACTION BETWEEN P-GLYCOPROTEIN AND TOPOISOMERASE II ALPHA ON OUTCOME IN OSTEOSARCOMA PATIENTS**Iwona A. Lugowska, MD, PhD³**; Katarzyna Szamotulska¹; Teresa Klepacka²; Elzbieta Michalak²; Irena Koch²; Ewa Mierzejewska¹; Piotr Rutkowski³¹Epidemiology and Biostatistics, Institute of Mother and Child, Warsaw, Mazowieckie, Poland; ²Pathology, Institute of Mother and Child, Warsaw, Mazowieckie, Poland; ³Maria Sklodowska-Curie Memorial Center and Institute of Oncology, Warsaw, Mazowieckie, Poland

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WHOLE EXOME SEQUENCING IN OSTEOSARCOMA, A FEASIBILITY STUDY OF NEXT-GENERATION SEQUENCING IN DECALCIFIED, FORMALIN-FIXED PARAFFIN EMBEDDED ARCHIVAL TISSUE**Andrew S. Brohl²**; Mireia Castillo-Martin¹; Andrew Uzilov³; Robert G. Maki⁴; Carlos Cordon-Cardo¹; **Elizabeth G. Demicco, MD, PhD¹**¹Pathology, Mount Sinai Hospital, New York, NY, USA; ²Medical Oncology, Genetics and Genomics Sciences, Mount Sinai Hospital, New York, NY, USA; ³Genetics and Genomics Sciences, Mount Sinai Hospital, New York, NY, USA; ⁴Medical Oncology, Mount Sinai Hospital, New York, NY, USA

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CD44 IS A DIRECT TARGET OF MIR-199A-3P AND CONTRIBUTES TO AGGRESSIVE PROGRESSION IN OSTEOSARCOMA**Zhenfeng Duan**; Yan Gao; Edwin Choy; Gregory M. Cote; David Harmon; Henry Mankin; Francis Hornicek
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FLAVOKAWAINS A AND B FROM KAVA EXTRACT EXHIBIT LOW TOXICITY AND MODULATE MIRNA IN HUMAN OSTEOSARCOMA CELLS: A NEW CHEMOPREVENTIVE STRATEGY**David S. Geller, MD¹**; Wendong Zhang²; Sajida Piperdi²; Tingting Ren²; Amy Park²; Yi Guo¹; Tao Ji³; Jonathan Gill²; Michael Roth²; Richard G. Gorlick²; Xiaolin Zi⁴; Bang Hoang¹¹Orthopaedic Surgery, Montefiore Medical Center, Bronx, NY, USA; ²Pediatrics, Montefiore Medical Center, Bronx, NY, USA; ³Musculoskeletal Tumor Center, Beijing, China; ⁴University of California, Irvine, CA, USA

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HOW GOOD ARE SURGEONS AT PREDICTING RESPONSE TO CHEMOTHERAPY AND HOW DID THAT AFFECT THEIR DECISION MAKING ON SURGERY? EURAMOS-1, EUROPEAN OSTEOSARCOMA INTERGROUP PATIENTS**Robert J. Grimer¹**; R. Lor Randall²; Reinhard Windhager³; Otte Brosjö⁴; Gordana Jovic⁵; Jeremy Whelan⁶; Stefan S. Bielack⁷; Neyssa M. Marina⁸; Sigbjørn Smeland⁹; Mark D. Krailo¹⁰; Trude Butterfass-Bahloul¹¹; Pancras Hogendoorn¹²; Mark L. Bernstein¹³; Matthew R. Sydes⁵¹The Royal Orthopaedic Hospital, Birmingham, United Kingdom; ²Huntsman Cancer Institute, Salt Lake City, UT, USA; ³University Clinic For Orthopaedic Surgery, Vienna, Austria; ⁴Karolinska Hospital, Stockholm, Sweden; ⁵Medical Research Council, Clinical Trials Unit, University College London, London, United Kingdom; ⁶University College Hospital, Department of Oncology, London, United Kingdom; ⁷Klinikum Stuttgart – Olga Hospital, Cooperative Osteosarcoma Study Group (COSS), Stuttgart, Germany; ⁸Stanford University Medical Center, Pediatric Hematology/Oncology, Children's Oncology Group, Palo Alto, CA, USA; ⁹Oslo University Hospital, Division of Cancer, Surgery and Transplantation and Scandinavian Sarcoma Group, Oslo, Norway; ¹⁰Children's Oncology Group, Arcadia, CA, USA; ¹¹Centre for Clinical Trials, University Hospital Muenster, Muenster, Germany; ¹²Leiden University Medical Center, Leiden, Netherlands; ¹³IWK Health Center, Dalhousie University, Pediatric Hematology Oncology, Halifax, NS, Canada

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NOTCH DRIVES MUSCLE ATROPHY IN SARCOMA-ASSOCIATED CACHEXIA

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PROPHYLACTIC ANTIBIOTIC REGIMENS IN TUMOR SURGERY (PARITY): A PILOT MULTI-CENTER RANDOMIZED CONTROLLED TRIAL

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Milcah C. Scott; Hirotaka Tomiyasu; Rebecca S. LaRue; John Garbe; Aaron Sarver; Sue Rathe; Nuri Temiz;

Anne Sarver; Logan G. Spector; Subbaya Subramanian; David Largaespada; Jaime Modiano

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SURVIVAL AFTER RECURRENCE IN OSTEOSARCOMA: A REPORT FROM THE CHILDREN'S ONCOLOGY GROUP

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THERAPEUTIC EFFECT OF TUMOR-SPECIFIC ONCOLYTIC ADENOVIRUS IN COMBINATION WITH SYSTEMIC CHEMOTHERAPY FOR OSTEOSARCOMA

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VITAMIN D: A MODIFIABLE RISK FACTOR FOR INFECTION IN OUR IMMUNOCOMPROMISED PATIENTS UNDERGOING SURGERY

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FORWARD TRANSLATION: DETERMINING THE ACCURACY, SENSITIVITY, AND SPECIFICITY OF OUR FLUORESCENCE IMAGING SYSTEM IN DOGS WITH CANCER

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PROGNOSTIC FACTORS PREDICTIVE OF SURVIVAL IN ADVANCED SYNOVIAL SARCOMA*Wanlim Kim; Han-Soo Kim; Ilkyu Han, MD, PhD**Orthopedic Surgery, Seoul National University Hospital, Seoul, Korea (the Republic of)*

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TARGETING APOPTOSIS IN SYNOVIAL SARCOMA*Jared Barrott¹; Ju-Fen Zhu¹; Lance Burrell²; Huifeng Jin¹; Kyllie Smith-Fry¹; Yanliang Wang¹; Matthew Cable¹;**Jeffrey Yap²; Kevin B. Jones¹**¹Department of Orthopaedics, University of Utah, Huntsman Cancer Institute, Salt Lake City, UT, USA;**²Center for Quantitative Cancer Imaging, Huntsman Cancer Institute, Salt Lake City, UT, USA*

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THE LONG-TERM OUTCOMES OF INTENSIVE COMBINED THERAPY OF ADULT PATIENTS WITH LOCALIZED SYNOVIAL SARCOMA*Katarzyna Kozak, MD; Hanna Kosela-Paterczyk; Tomasz Switaj; Anna Klimczak; Jolanta Andrzejuk; Iwona Lugowska; Slawomir Falkowski; Tadeusz Morysinski; Milena Szacht; Piotr Rutkowski**Department of Soft Tissue/Bone Sarcoma and Melanoma, Maria Sklodowska-Curie Memorial Cancer Center and Institute of Oncology, Warsaw, Poland*

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SS18-SSX, THE ONCOGENIC FUSION PROTEIN IN SYNOVIAL SARCOMA, IS A CELLULAR CONTEXT-DEPENDENT EPIGENETIC MODIFIER*Sakura Tamaki¹; Makoto Fukuta¹; Kazuya Sekiguchi¹; Kazuo Hayakawa¹; Yonghui Jin¹; Sho Hineno¹; Takeshi Okamoto²; Makoto Watanabe³; Knut Woltjen⁴; Makoto Ikeya³; Tomohisa Kato³; Junya Toguchida¹**¹Department of Tissue Regeneration, Institute for Frontier Medical Sciences, Kyoto University, Kyoto, Japan;**²Department of Orthopaedic Surgery, Graduate School of Medicine, Kyoto University, Kyoto, Japan; ³Department of Cell Growth and Differentiation, Center for iPS Cell Research and Application, Kyoto University, Kyoto, Japan; ⁴Department of Reprogramming Sciences, Center for iPS Cell Research and Application, Kyoto University, Kyoto, Japan*

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SYSTEMIC THERAPY AND PATIENT OUTCOMES IN THE METASTATIC SETTING IN THE SOFT TISSUE SARCOMA IN THE ASIA PACIFIC REGION (STAR) STUDY*Roger Ngan¹; Mohamad Farid²; Edward Wang³; Apichat Asavamongkolkul⁴; Alex Leung¹; Nugroho Prayogo⁵; Thipachart Punyaratabandhu⁶; Ee Min Yeoh⁷; Sumitra Shantakumar⁸; Stephanie Manson⁹; Richard Quek²**¹Department of Clinical Oncology, Queen Elizabeth Hospital, Hong Kong, Hong Kong; ²Division of Medical Oncology, National Cancer Centre Singapore, Singapore, Singapore; ³Department of Orthopaedics, University of the**Philippines-Philippine General Hospital, Manila, Philippines; ⁴Department of Orthopaedic Surgery, Siriraj Hospital, Mahidol University, Bangkok, Thailand; ⁵Department of Medical Oncology, Dharmais Hospital National Cancer Center, Jakarta, Indonesia; ⁶Department of Orthopaedics, Phramongkutklao Hospital and College of Medicine, Bangkok, Thailand;**⁷Novartis Oncology Asia Pacific-South Africa, Singapore, Singapore; ⁸GlaxoSmithKline Worldwide Epidemiology (Asia), Singapore, Singapore; ⁹Novartis Pharmaceuticals UK, London, United Kingdom*

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TROFOSFAMIDE AND ETOPOSIDE AS A WELL TOLERATED PALLIATIVE TREATMENT IN ADVANCED SOFT TISSUE SARCOMA*Marie Ahlstrom; Mikael Eriksson**Oncology, Skane University Hospital, Lund, Sweden*

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DRUG-MEDIATED DISRUPTION OF THE TUMOR-DRIVING PROTEIN COMPLEX IN SYNOVIAL SARCOMA - ASSESSED BY THE PROXIMITY LIGATION ASSAY*Aimee N. Laporte¹; Jennifer Ji²; Torsten O. Nielsen¹; Bertha Brodin³**¹University of British Columbia, Vancouver, BC, Canada; ²BC Cancer Agency, Vancouver, BC, Canada;**³Cancer Centre Karolinska Institutet, Stockholm, Sweden*

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METASTASIS OF SMALL (T1) SYNOVIAL SARCOMA

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RNAI SCREEN IDENTIFIES NOVEL EPIGENETIC DEPENDENCIES IN SYNOVIAL SARCOMA

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Translocation Associated Sarcomas NOS

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HAS IDENTIFICATION OF PATHOGNOMONIC TRANSLOCATIONS INCREASED THE REPORTED INCIDENCE OF TRANSLOCATION ASSOCIATED SARCOMAS OVER TIME?

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MOLECULAR EVOLUTION AND FUNCTIONAL ACTIVITY OF A SPECIFIC HIGH AFFINITY IGF2 ISOFORM ANTAGONIST (IGF2-TRAP) FOR SARCOMA THERAPY

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NEXT GENERATION SEQUENCING IDENTIFIES FREQUENT TARGETABLE ALTERATIONS IN PEDIATRIC AND ADOLESCENT/YOUNG ADULT SARCOMA PATIENTS

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CALRETICULIN AS A POTENTIAL METASTASIS-ASSOCIATED PROTEIN IN MYXOID LIPOSARCOMA REVEALED BY PROTEOMICS

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FAT- INDUCED RETROPERITONEAL SOFT TISSUE SARCOMA TUMORIGENESIS

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IDENTIFICATION OF FUS-DDIT3 PROTEIN INTERACTORS IN MYXOID LIPOSARCOMA.**Jamie Lim**¹; Christopher S. Hughes³; Judith Bovee⁴; Alexander J. Lazar⁵; Gregg B. Morin³; Torsten O. Nielsen²¹Interdisciplinary Oncology, University of British Columbia, Vancouver, BC, Canada; ²Pathology, University of British Columbia, Vancouver, BC, Canada; ³Michael Smith Genome Sciences Centre, BC Cancer Agency, Vancouver, BC, Canada; ⁴Pathology, Leiden University Medical Center, Leiden, Netherlands; ⁵Pathology, MD Anderson Cancer Center, Houston, TX, USA

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LEIOMYOSARCOMA WITH ALTERNATIVE LENGTHENING OF TELOMERES IS ASSOCIATED WITH AGGRESSIVE HISTOLOGICAL FEATURES, LOSS OF ATRX EXPRESSION AND POOR CLINICAL OUTCOME**CHING-YAO YANG, MD, PhD**¹; Jau-Yu Liao²; Jia-Huei Tsai²; Yung-Ming Jeng²; Jen-Chieh Lee²¹Department of Surgery, National Taiwan University Hospital, and College of Medicine, National Taiwan University, Taipei, Taiwan; ²Department of Pathology, National Taiwan University Hospital, and College of Medicine, National Taiwan University, Taipei, Taiwan

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NEXT GENERATION SEQUENCING OF EXTRASKELETAL MYXOID CHONDROSARCOMA**Rashmi Chugh, MD**¹; Jyoti N. Anthanikar²; Scott M. Schuetze¹; Laurence Baker¹; Elizabeth J. Davis¹; Yi-mi Wu²; Arul M. Chinnaiyan²; Dan Robinson²¹Internal Medicine, University of Michigan, Ann Arbor, MI, USA; ²Pathology, University of Michigan, Ann Arbor, MI, USA

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RESISTANCE MECHANISMS OF RHABDOMYOSARCOMAS TO RHABDOMYOSARCOMA-DIRECTED CHIMERIC T CELLS**Katja Simon-Keller**; Anna Seils; Alexander Marx

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FINAL RESULTS OF TWO PHASE II STUDIES, A RANDOMIZED COMPARATIVE STUDY AND A SINGLE ARM STUDY, OF TRABECTEDIN IN PATIENTS WITH TRANSLOCATION-RELATED SARCOMAS (TRS)**Hiroaki Hiraga, MD, PhD**¹; Shunji Takahashi²; Nobuhito Araki³; Hideshi Sugiura⁴; Takafumi Ueda⁵; Tsukasa Yonemoto⁶; Mitsuru Takahashi⁷; Hideo Morioka⁸; Toru Hiruma⁹; Toshiyuki Kunisada¹⁰; Akihiko Matsumine¹¹; Akira Kawai¹²¹Department of Orthopaedic Surgery, Hokkaido Cancer Center, Sapporo, Hokkaido, Japan; ²Department of Medical Oncology, Cancer Institute Hospital of Japanese Foundation for Cancer Research, Koto, Tokyo, Japan; ³Department of Orthopaedic Surgery, Osaka Medical Center for Cancer and Cardiovascular Diseases, Osaka, Osaka, Japan; ⁴Department of Orthopaedic Surgery, Aichi Cancer Center Hospital, Nagoya, Aichi, Japan; ⁵Department of Orthopaedic Surgery, Osaka National Hospital, Osaka, Osaka, Japan; ⁶Division of Orthopaedic Surgery, Chiba Cancer Center, Chiba, Chiba, Japan; ⁷Division of Orthopaedic Surgery, Shizuoka Cancer Center Hospital, Suntou, Shizuoka, Japan; ⁸Department of Orthopaedic Surgery, School of Medicine, Keio University, Shinjuku, Tokyo, Japan; ⁹Department of Musculoskeletal tumor surgery, Kanagawa Cancer Center, Yokohama, Kanagawa, Japan; ¹⁰Department of Medical Materials for Musculoskeletal Reconstruction, Okayama University Graduate School of Medicine, Okayama, Okayama, Japan; ¹¹Department of Orthopedic Surgery, Mie University Graduate School of Medicine, Tsu, Mie, Japan; ¹²Division of Musculoskeletal Oncology, National Cancer Center Hospital, Chuo, Tokyo, Japan

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METASTATIC CLEAR CELL SARCOMA IN A 6-YEAR-OLD MIMICKING METASTATIC MELANOMA AND SUCCESSFULLY TREATED WITH CHECKPOINT INHIBITORS**Suzanne Forrest, MD**¹; Alanna Church²; Birgitta Schmidt²; Annette Werger³; Marian Harris²; Carlos Rodriguez-Galindo⁴; Katherine Janeway⁴¹Department of Medicine, Boston Children's Hospital, Boston, MA, USA; ²Department of Pathology, Boston Children's Hospital, Boston, MA, USA; ³Department of Pediatric Oncology, Dana-Farber / Boston Children's Cancer and Blood Disorders Center, Boston, MA, USA; ⁴Department of Pediatric Oncology, Dana-Farber / Boston Children's Cancer and Blood Disorders Center and Harvard Medical School, Boston, MA, USA

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RECURRENT DESMOPLASTIC SMALL ROUND CELL TUMOR RESPONDING TO M-TOR INHIBITOR-CONTAINING REGIMEN

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THE CHK1/CHK2 SMALL MOLECULE INHIBITOR LY2606368 MESYLATE MONOHYDRATE DEMONSTRATES ANTI-TUMOR ACTIVITY ACROSS A WIDE RANGE OF PRECLINICAL MODELS FOR PEDIATRIC AND ADULT SOFT TISSUE SARCOMA

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ADAMANTINOMA OF THE LEG: TWO CASE REPORTS

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MUTI-TARGETED TYROSINE KINASE INHIBITORS FOR ALVEOLAR SOFT PART SARCOMAS

***Eisuke Kobayashi, MD, PhD**; Makoto Endo; Yoshikazu Tanzawa; Fumihiko Nakatani; Hirokazu Chuman; Akira Kawai*
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PLASMA LEVELS OF MIRNA-155 AS A POWERFUL DIAGNOSTIC MARKER FOR DEDIFFERENTIATED LIPOSARCOMA

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TWO CASES OF AGED PATIENTS WITH METASTATIC BONE TUMOR OF THE DISTAL FEMUR THAT WAS TREATED WITH ENDOPROSTHETIC REPLACEMENT

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EPITHELIOID ANGIOSARCOMA OF SMALL INTESTINE PRESENTING WITH METASTATIC BONE PAIN: A CASE REPORT

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AGGRESSIVE ANGIOMYXOMA: FIVE-YEARS EXPERIENCE IN A RARE PELVIC MESENCHYMAL TUMOR

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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?

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UNDIFFERENTIATED SARCOMA IN A NEWBORN MASQUERADING AS SACROCOCCYGEAL TERATOMA

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A PILOT STUDY OF ZALTOPROFEN IN ADVANCED PRIMARY AND RECURRENT PIGMENTED VILLONODULAR SYNOVITIS

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ANGIOMATOID FIBROUS HISTIOCYTOMA: A REPORT OF EIGHT CASES

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COMPREHENSIVE GENOMIC CHARACTERISATION OF A RARE MELANOTIC NEUROECTODERMAL TUMOUR PRESENTING IN THE FIBULA OF A 2 MONTH OLD CHILD.

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EDUCATIONAL ACTIVITIES EFFECTIVELY IMPROVED THE REFERRAL PATHWAY OF PATIENTS WITH SOFT TISSUE TUMORS

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SYSTEMIC TREATMENT FOR UNRESECTABLE CHONDROSARCOMA PATIENTS

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EFFECTS OF PANOBINOSTAT, CARFILZOMIB AND AGI-5198(C35) IN IDH-MUTANT HUMAN CHONDROSARCOMA CELL LINES

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EPIGENETIC REGULATION OF EMBRYONIC STEM CELL MARKER MIR302C IN HUMAN CHONDROSARCOMA AS DETERMINANT OF ANTIPROLIFERATIVE ACTIVITY OF PROLINE RICH POLYPEPTIDE 1.

Karina Galoian, PhD¹; Amir Qureshi⁴; Gianluca Dippolito³; Paul Schiller¹; Marco Molinari¹; Andrea L. Johnstone²; Shaun P. Brothers²; Ana Paz⁵; H. T. Temple¹

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CHEST WALL EWING SARCOMA: A POPULATION BASED ANALYSIS

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DEFINING THE MECHANISMS OF RESISTANCE TO LSD1 INHIBITION

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FOLLOW-UP IN PATIENTS WITH EWING SARCOMA: VALUE OF AN IMAGING PROTOCOL INCLUDING FDG-PET(-CT) AND MRI FOR RECURRENCE DETECTION

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DECIPHERING THE ROLE OF THE CALCITONIN-RELATED POLYPEPTIDE BETA (CALCB) IN EWING SARCOMA

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DISEASE AND LATE EFFECT SURVEILLANCE PRACTICES AFTER TREATMENT FOR LOCALIZED EWING'S SARCOMA

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LOCAL TREATMENT STRATEGIES FOR NON-METASTATIC EWING SARCOMA OF BONE: A SYSTEMATIC REVIEW AND META-ANALYSIS

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OUTCOMES OF CHILDREN AND YOUNG ADULTS WITH EWING SARCOMA: DOES ETHNICITY AFFECT? A SINGLE INSTITUTION EXPERIENCE

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THE CXCR4 ANTAGONIST PLERIXAFOR (AMD3100) PROMOTES SURVIVAL AND MIGRATION OF EWING SARCOMA CELLS IN VITRO

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A SUCCESS IN TREATING IMPENDING CORD COMPRESSION WITH ONLY IMATINIB IN GIST

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GIST - CLINICAL DECISION SUPPORT SYSTEM

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LAPAROSCOPIC VERSUS OPEN RESECTION FOR GASTROINTESTINAL STROMAL TUMORS (GIST)

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EFFICACY OF THE COMBINATION REGIMEN OF BEVACIZUMAB PRECONDITIONING FOLLOWED BY IFOSFAMIDE AND ETOPOSIDE IN INOPERABLE HEAD AND NECK RADIATION INDUCED SARCOMA

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IMPACT OF HIP JOINT STABILIZATION ON FUNCTIONAL OUTCOME AFTER INTERNAL HEMIPELVECTOMY AND PROXIMAL FEMUR RESECTION USING GAIT ANALYSIS

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SEVERE TOXICITY OF CHEMOTHERAPY AGAINST ADVANCED SOFT TISSUE SARCOMA IN WERNER'S SYNDROME: IFOSFAMIDE-INDUCED ENCEPHALOPATHY WITH CENTRAL DIABETES INSIPIDUS.

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SURGICAL TREATMENT FOR MULTIPLE MYXOFIBROSARCOMAS - A CASE REPORT -

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THE INTRAOPERATIVE RADIATION THERAPY FOR THE SOFT TISSUE SARCOMAS INVOLVING THE TENDON

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VASCULAR LEIOMYOSARCOMAS OF THE LOWER EXTREMITY

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IDENTIFICATION OF NOVEL DRUG TARGETS IN UNDIFFERENTIATED PLEOMORPHIC SARCOMA BY GENOMIC APPROACHES

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PRIMARY HIGH GRADE SOFT TISSUE SARCOMA OF THE BUTTOCK: A MULTIDISCIPLINARY TEAM APPROACH

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SOCIOECONOMIC DISPARITY IN LIMB SALVAGE VERSUS AMPUTATION AMONG EXTREMITY SOFT TISSUE SARCOMA PATIENTS: A NATIONAL CANCER DATABASE (NCDB) ANALYSIS

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DEVELOPING A LIQUID BIOPSY APPROACH FOR LEIOMYOSARCOMA AND LEIOMYOMA

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PROSTATE AND BLADDER SARCOMA IN THE PEDIATRIC POPULATION

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A CLINICAL REVIEW OF 15 CASES OF EXTRASKELETAL OSTEOSARCOMA

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A COMPARATIVE MODEL TO STUDY BIOLOGICAL BEHAVIOR OF OSTEOSARCOMA IN VIVO

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CHEMOTHERAPY REVIVED - INTRAARTERIAL CHEMOTHERAPY IN AN OSTEOSARCOMA XENOGRAFT MODEL

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EPIDEMIOLOGY OF BONE AND SOFT TISSUE TUMORS IN RUSSIA.

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HEAT SHOCK PROTEIN A5: A NEW MOLECULAR TARGET IN THE INHIBITION OF LUNG METASTASIS PROGRESSION IN A PRECLINICAL MODEL OF OSTEOSARCOMA

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HIGH-DOSE METHOTREXATE: ANALYSIS OF A SERIES OF PATIENTS OLDER THAN 40 YEARS

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INCIDENCE, MORTALITY AND TIME TRENDS OF CHILDHOOD SOFT TISSUE SARCOMAS IN RUSSIA

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OLIGO-RECURRENCE OF OSTEOSARCOMA PATIENTS: TREATMENT STRATEGIES FOR PULMONARY METASTASES

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PATHOLOGIC FRACTURES AS PROGNOSTIC FACTORS FOR SURVIVAL, LOCAL RECURRENCE AND DISTANT METASTASES IN OSTEOSARCOMA OF THE EXTREMITIES

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PROSPECTIVE EVALUATIONS OF FUNCTIONAL MOBILITY FOR PATIENTS WITH LOWER EXTREMITY OR PELVIC OSTEOSARCOMA TREATED ON A THERAPEUTIC TRIAL

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PSYCHOSOCIAL OUTCOMES IN LONG-TERM SURVIVORS OF PEDIATRIC AND ADOLESCENT OSTEOSARCOMA

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SYNERGISTIC ANTI-PROLIFERATIVE EFFECT OF IMATINIB AND ADRIAMYCIN IN PDGFR-EXPRESSING OSTEOSARCOMAS

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TARGETING $\alpha V\beta 3$ AND $\alpha V\beta 5$ INTEGRINS IN OSTEOSARCOMA CELLS

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A COMBINATION CHEMOTHERAPY, TEMOZOLOMIDE (TMZ) WITH ETOPOSIDE (VP), IN RELAPSED OR REFRACTORY SOLID CANCER: PRELIMINARY REPORT OF RANDOMIZED PHASE II STUDY OF TWO DIFFERENT OUTPATIENT SETTING REGIMENS (RPII)

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A HIGH TRAIL-RECEPTOR CLUSTERING IS ABLE TO OVERCOME TRAIL RESISTANCE IN PEDIATRIC BONE SARCOMA MODELS

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ACCURACY OF PREOPERATIVE MRI AND RADIOGRAPHY IN THE PREDICTION OF INTRAOSSEOUS MARGINS IN HIGH-GRADE BONE SARCOMA

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ADHESION IS CRUCIAL TO OSTEOSARCOMA PULMONARY METASTASIS IN TETRASPANIN CD151 DEPENDENT MANNER

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APOPTOTIC EFFECT OF AICAR ON OSTEOSARCOMA CELL LINES

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BENEFITS OF ZOLEDRONIC ACID AND LIPOSOMAL MIFAMURTIDE ASSOCIATION IN OSTEOSARCOMA

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COMMERCIAL ACTIVITY MONITOR FOR ASSESSING FUNCTIONAL OUTCOMES IN PEDIATRIC LOWER EXTREMITY BONE CANCER

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DEFINING LOCAL DISEASE PROGRESSION IN PATIENTS WITH OSTEOSARCOMA: INTER-RADIOLOGIST AGREEMENT AND RECIST VS. EURAMOS

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DRIVERS OF MESENCHYMAL-EPITHELIAL TRANSITIONS IN SARCOMAS

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EARLY RESPONSE MONITORING TO NEOADJUVANT CHEMOTHERAPY IN OSTEOSARCOMA USING SEQUENTIAL ¹⁸F-FDG PET/CT AND MRI

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EFFECT OF BMP-2 ON OSTEOSARCOMA LUNG METASTASES IN A XENOGRFT MURINE MODEL

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EFFECT OF BONE MICROENVIRONMENT IN JAW OSTEOSARCOMA DEVELOPMENT

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EFFECTS OF METFORMIN ADMINISTRATION TO MYELOID-DERIVED SUPPRESSOR CELLS (MDSCS) IN OSTEOSARCOMA MICROENVIRONMENT

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EFFICACY OF FLUORESCENCE-GUIDED SURGERY ON PRIMARY HUMAN OSTEOSARCOMA

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SARCOMA PATIENT DERIVED TUMOR CELLS OBTAINED BY THE EXPLANT TECHNIQUE

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UNFOLDED PROTEIN RESPONSE: STRESS ADAPTATION PATHWAY AS REGULATOR OF THERAPY RESISTANCE IN OSTEOSARCOMA

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CHARACTERIZATION OF THE METASTATIC PHENOTYPE OF A PANEL OF ESTABLISHED OSTEOSARCOMA CELLS

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GENETIC INTERACTION BETWEEN RECQL4 AND P53 IN OSTEOSARCOMA DEVELOPMENT

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IDENTIFICATION OF FASCIN-1 AS A NOVEL PROGNOSTIC BIOMARKER IN OSTEOSARCOMA

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PAIRED COMPARATIVE TRANSCRIPTOME ANALYSIS OF SYNOVIAL SARCOMAS AND THEIR DERIVATIVE CELL LINES

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THE METABOLIC FATE OF GLUCOSE AND GLUTAMINE IN SYNOVIAL SARCOMA

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A MODIFIED DELPHI PROCESS TO IDENTIFY SARCOMA QUALITY AND PERFORMANCE METRICS FOR CANCER CARE ONTARIO

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CIC-DUX4 FUSION-POSITIVE ROUND CELL SARCOMAS OF SOFT TISSUE AND BONE: THE RIZZOLI INSTITUTE EXPERIENCE

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TUMOR RESPONSE FOLLOWING PREOPERATIVE THERAPY FOR MYXOID/ROUND CELL LIPOSARCOMAS OF THE EXTREMITY

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CLINICOPATHOLOGICAL ASSESSMENT OF NY-ESO-1 EXPRESSION IN HIGH GRADE SOFT TISSUE SARCOMA

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DISCOVERY OF TARGETABLE TYROSINE KINASES AND ANTI-TUMOR ACTIVITY OF TYROSINE KINASE INHIBITORS IN ALVEOLAR SOFT PART SARCOMA

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LOCALIZED, LIMITED-STAGE DESMOPLASTIC SMALL ROUND CELL TUMOR: TREATMENT OF 4 CASES

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DESMOPLASTIC SMALL ROUND CELL TUMOR: CLINICAL COURSES AND OUTCOME OF 15 CASES FROM THE NATIONAL CANCER CENTER, JAPAN

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SEVERE HYPERCALCEMIA FOLLOWING DENOSUMAB TREATMENT IN A CHILD WITH GIANT CELL TUMOR OF BONE

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TARTRATE-RESISTANT ACID PHOSPHATASE 5B AS A SENSITIVE TUMOR MRKER ON EARLY EVALUATION OF EFFECTIVENESS OF DENOSUMAB AGAINST GIANT CELL TUMOR OF BONE.

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