Musculoskeletal Infection Society
29th Annual Open Scientific Meeting
August 2-3, 2019
Grand Hyatt New York

Agenda

Friday, August 2, 2019

7:15 a.m.  Registration Opens – Manhattan Ballroom Foyer

7:15-7:45 a.m.  Continental Breakfast – Museum Space / Manhattan Foyer
Seating in Manhattan Ballroom
Visit Exhibitors and e-Posters- Museum Space

7:46-7:59 a.m.  Welcome, Disclosures
Presentation of the George C. Cierny, III, M.D. Memorial Award
Barry D. Brause, M.D.

Session I  EPI AND EPIDEMIOLOGY
Moderator: Maja Babic, PhD; Brian A. Klatt, M.D.

8:00-8:06 a.m.  Hospital Volume and Post-Operative Infections in Total Knee Arthroplasty
Hiba K Anis; Bilal M Mahmood; Alison K Klika; Wael K Barsoum; Robert M Molloy; Carlos A Higuera

8:07-8:13 a.m.  Is Treatment of Periprosthetic Joint Infection Improving Over Time?
Mohammed Hammad; Karan Goswami; Chi Xu; Timothy L Tan; Michael Yayac; Qiaojie Wang; Javad Parvizi

8:14-8:20 a.m.  Opioid Use Disorder Increases the Risk of Infection after Primary Total Hip Arthroplasty
Nipun Sodhi; Hiba Anis; Rushabh Vakharia; Eric Grossman; Carlos A Higuera; Martin Roche; Michael Mont

8:21-8:27 a.m.  Comparing the Treatment of Knee Periprosthetic Joint Infections between Substance Use Disorder Patients and Non-Users in a Nationally-Representative Sample 2010-2014
Eric L Smith; Evan Dugdale; David Tybor; Amir Shahien; Kenneth McAlpine

8:28-8:36 a.m.  Discussion

8:37-8:43 a.m.  Greater Risk for Mental Health Conditions after Prosthetic Joint Infections in Total Knee Arthroplasty
Hiba Anis; Jared Warren; Alison Klika; Siran Koroukian; Guangjin Zhou; Carlos A Higuera; Wael Barsoum; Nicolas Piuzzi
8:44-8:50 a.m. Risk Factors for Infection after Primary Total Knee Arthroplasty in Octogenarians and Nonagenarians
Nipun Sodhi; Hiba Anis; Rushabh Vakharia; Bilal Mahmood; Eric Grossman; Martin Roche; Michael Mont

8:51-8:57 a.m. The Economics of Antibiotic Cement in Total Knee Arthroplasty: Added Cost with No Reduction in Infection Rates
P. Maxwell Courtney; Michael Yayac; Alexander Rondon; Timothy Tan; Hannah Levy; Javad Parvizi

8:58-9:04 a.m. Tranexamic Acid Reduces Periprosthetic Joint Infection after Primary Total Joint Arthroplasty
Hamidreza Yazdi; Mitchell R Klement; Mohammed Hammad; Daisuke Inoue; Chi Xu; Karan Goswami; Javad Parvizi

9:05-9:11 a.m. Preoperative decolonisation and surgical site infections in orthopaedic surgery: a prospective randomised controlled trial (DECO-SSI trial)
Felix Rohrer, Hubert Noetzli; Lorenz Risch; Thomas Bodmer; Philippe Cottagnoud; Tanja Hermann; Andreas Limacher; Niklaus Fankhauser; Karoline Wagner; Jan Bruegger

9:12-9:22 a.m. Discussion

SYMPOSIUM #1 Post-operative Spine Infections with Collections
9:23-10:13 a.m. (para-spinal, epidural and subdural)
Moderator: Sandra Nelson, M.D. Hollis Potter, M.D. Joseph Schwab, M.D.

10:14-10:34 a.m. Refreshment Break - Museum Space / Manhattan Foyer
Visit Exhibitors and ePosters –Museum Space

Session II BASIC SCIENCE
Moderator: Laura Certain, MD, Martin McNally, MD

10:35-10:41 a.m. Synovial fluid induced Staphylococcus aureus aggregate development and its impact on surface attachment and biofilm formation
Matthew J Pestrak; Devendra H Dusane; Doug Guzior; Paul Stoodley

Paul Stoodley; Casey W Peters; Craig Delury; Sean S Aiken; Phillip Laycock; Ed McPherson; Anne Sullivan; Jeffrey F Granger; Devendra H Dusane

10:49-10:55 a.m. Shotgun Metatranscriptomics for PJI diagnosis: A Novel Prospective Investigation
Karan Goswami; Alexander J Shope; Timothy L Tan; Justin Wright; Regina Lamendella; Javad Parvizi; James J Purtill
10:56-11:02 a.m. Killing of persister cells and biofilms of Pseudomonas aeruginosa by spatial
distribution of antibiotic-loaded calcium sulfate beads.
*Devendra H Dusane; Jacob Brooks; Devin Sindeldecker; Casey Peters; Craig
Delury; Sean S Aiken; Phillip Laycock; Anne Sullivan; Jeffrey F Granger; Paul
Stoodley*

11:03-11:11 a.m. Discussion

11:12-11:18 a.m. Simulated Large Joint Fluid Model for Evaluating Intra-Articular Local Antibiotic
Delivery Systems
*Edward J. McPherson; Andrew J. Wassef; Joel D. Bumgardner; Jessica A.
Jennings; Scott P. Noel; V. Priya Murali; Michael Harris; Madison Brown; Omar
Yunis; Matthew V Dipane*

11:19-11:25 a.m. The Antimicrobial Effects of Synovial Fluid
*Samy S Gabriel; Reuben Judd; Michael R Bubb*

11:26-11:32 a.m. Using laser capture microdissection to determine the bone concentration of
antibiotics in mice: a pilot study
*Laura Certain; Brendan Prideaux; Claire Carter; Veronique Dartois*

11:33-11:41 a.m. Discussion

Session III DIAGNOSTICS
Moderator: Andy O. Miller, M.D.; Stephen L. Kates, M.D.

11:42-11:48 a.m. Metagenomic DNA Sequencing for Pathogen Identification in Orthopedic
Nonunion
*Gerard Chang; Timothy L Tan; Karan Goswami; John Strony; Keenan Sobol;
Brianna Fram; Javad Parvizi; James C Krieg*

11:49-11:55 a.m. The Quality of a Synovial Fluid Aspirate is Critical to Result Interpretation
*Carl Deirmengian; Gregory Kazarian; Scott Feeley; Keith Kardos*

11:56-12:02 a.m. Neutrophil-to-Lymphocyte ratio (NLR) is a Strong Predictor of Treatment Failure
and Postoperative 90-Day Mortality in Septic Hip and Knee Arthritis
*Pierre-Emmanuel Schwab; Nathan Varady; Antonia F Chen*

12:03-12:09 p.m. A Potential New Indicator for the Diagnosis of Fracture-Related Infections:
Platelet Count to Mean Platelet Volume Ratio
*Taylor Paziuk; Gerard Chang; Brianna Fram; John Strony; James Krieg*

12:10-12:16 p.m. Prospective, Multicenter, Adjudicator-Blinded Clinical Trial of the Alpha-
Defensin (AD) Lateral Flow Test for Periprosthetic Infection (PJI)
*Carl Deirmengian; Sujith Kallur; John Madigan; Janet Conway; Carlos A
Higuera; Robin Patel*

12:17-12:27 p.m. Discussion
12:30-12:50 p.m. Lunch– Manhattan Ballroom

*Please get your lunch and return to your seat*

For the best Biofilm Symposium

*Basic Science with a clinical focus*

**SYMPOSIUM # 2  Biofilm**

12:50-1:45 p.m. Basic Science Findings Guide Clinical Outcomes Data

*Is acute vs chronic a biofilm question?*

*Local vs systemic antimicrobials, can either work against mature biofilm?*

Moderator: Alex C. McLaren, M.D.

Edward Schwarz, PhD

Steven Kates, M.D.

Kordo Saeed, M.D.

**Session IV  PJI DIAGNOSTICS AND MANAGEMENT**

Moderators: Angela L. Hewlett, M.D.; Carlos A. Higuera-Rueda, M.D.

1:46-1:52 p.m. A low percentage of patients meet inclusion criteria for single-stage exchange arthroplasty

*Malcolm E. Dombrowski; Alan Wilson; Michael J. O'Malley; Kenneth Urish; Brian R. Hamlin; Lawrence S. Crossett; Brian A. Klatt*

1:53-1:59 p.m. Femoral Impaction Bone Grafting in Staged Revision for Infected Hip Arthroplasty.

*Mukai Chimutengwende-Gordon; Stuart A Callary; Jerome A Davidson; Kerry Costi; Sue M Pannach; Roumen Stamenkov; Donald W howie; Lucian B Solomon*

2:00-2:06 p.m. Rheumatic Disease Patients Have More Culture Negative Prosthetic Joint Infections- Are There Clinical Differences?

*Milan Kapadia; Andy O Miller; Allina A Nocon; Peter Sculco; Susan Goodman; Michael Henry*

2:07-2:13 p.m. Total Joint Arthroplasty after Septic Arthritis: When can this be Safely Performed?

*Timothy L Tan; Chi Xu; Elie Ghanem; Carlos Higuera; Jaiben George; Karan Goswami; Ji-Ying Chen; Javad Parvizi*

2:14-2:22 p.m. Discussion

2:23-2:29 p.m. Automated Cell Counters May Yield Falsely Elevated Synovial fluid WBC Counts in TKA

*Carl Deirmengian; Scott Feeley; Stephen Sizer; Gregory Kazarian*

2:30-2:36 p.m. Diagnostic Performance of the Synovasure Microbial ID Test

*Carl Deirmengian; Scott Feeley; Tony Joaquim; Dan Keeter*
2:37-2:43 p.m. Organism Prevalence in Prosthetic Joint Infection (PJI) Before and After the Implementation of Routine Implant Sonicate Culture
Lee M Sasala; Alan Wilson; Elena Nikonova; Michael J O'Malley; Brian A Klatt

2:44-2:50 p.m. Differences in Pathogens Between Hip and Knee Prosthetic Joint Infections
Michael Henry; Milan Kapadia; Joseph Nguyen; Barry Brause; Andy O Miller

2:51-2:59 p.m. Discussion

3:00-3:20 p.m. Refreshment Break - Museum Space / Manhattan Foyer
Visit Exhibitors and e-Posters – Museum Space

SYMPOSIUM # 3 Pre-operative PJI Risk Calculators
3:21-4:16 p.m. The importance of modifying the modifiable
Moderator: Alberto V. Carli, M.D.
Antonia F. Chen, M.D., MBA
Carlos A. Higuera-Rueda, M.D.
Aaron J. Tande, M.D.

Session V PJI OUTCOMES
Moderator: Parham Sendi, M.D.; Antonia F. Chen, M.D., MBA

4:17-4:23 p.m. Periprosthetic joint infections diagnosed by MSIS and sonication cultures demonstrate greater than 50% treatment failure rate in patients with a history of two-stage exchange arthroplasty
Alan E Wilson; Kwesi St. Louis; Michael J O'Malley; Kenneth L Urish; Lawrence S Crossett; Brian A Klatt

4:24-4:30 p.m. Host Grariskde and Long Term Reinfection Rate in Prosthetic Joint Infection
Lee Sasala; Alan Wilson; Elena Nikonova; Michael O'Malley; Brian Klatt

4:31-4:37 p.m. Evolution of the 2 Stage to a 1 Stage in the Treatment of Infected Total Joints Arthroplasties: Results of the First 500 cases
Gerhard E Maale; John J Eager; Anirurth Srinivasaraghav

4:38-4:44 p.m. Serial Aspirations & Intra-Articular Antibiotic Injections for Non-Operative Management of Chronic PJ: Introducing the Concept of Biofilm Training
Edward J. McPherson; Jasmine A. Castillejos; Madhav Chowdhry; Matthew V Dipane

4:45-4:53 p.m. Discussion

4:54-5:00 p.m. Treatment Outcomes and Attrition in Gram Negative Periprosthetic Joint Infection
Irene Kalbian; Karan Goswami; Nathan John; Carol Foltz; Timothy L Tan; Javad Parvizi; William V Arnold

5:01-5:07 p.m. Safety and Tolerability of Rifampin in Staphylococcal Orthopedic Infections
Andy O Miller; Milan Kapadia; Alberto Carli; Michael Henry
5:08-5:14 p.m. The Value of Serological Screening Prior to Conversion Total Hip Arthroplasty
Kyle H Cic; Matthew C Christie; Alex R Heatherly; Gerald McGwin; Johnathan H Quade; Elie Ghanem

5:15-5:21 p.m. Reporting Outcomes of Treatment for Periprosthetic Joint Infection of the Knee
and Hip Together with a Minimum 1-year Follow-up is Reliable
William T Li; Timothy L Tan; Chi Xu; Karan Goswami; Javad Parvizi

5:22-5:30 p.m. Discussion

5:40-7:00 p.m. President’s Reception– Gallery on Lex
Wine & Beer with very light Hors d’oeuvres
SUGGESTION: Make dinner reservations early

6:00-6:30 p.m. Oral Presentations of Selected e-Posters

6:30 p.m. Remarks: Barry D. Brause, M.D, President

Saturday, August 3, 2019

6:45-7:30 a.m. MSIS Business Meeting (MSIS Members only)
Regency Room, Grand Hyatt Hotel (2nd floor)

6:45-7:30 a.m. Continental Breakfast – Museum Space / Manhattan Foyer
Seating in the Manhattan Ballroom
Visit Exhibitors and e-Posters –Museum Space

7:30-8:00 a.m. Special Presentation:
Journal of Bone and Joint Infections (JBJI)
Journal of the EBJIS & the MSIS
Best Papers of 2018-2019
Parham Sendi, M.D. ; Elie Berbari, M.D.
REMINDER: EBJIS Meeting is in Antwerp, Belgium, September 12-14, 2019

Symposium #4 Debridement, Antibiotics and Implant Retention
(DAIR) Case presentations with panel discussions,
in memory of Carl L. Nelson, M.D.
Co-branded with the American Association of Hip and Knee Surgeons
Moderator: Javad Parvizi, M.D.
Brian A. Klatt, M.D.
Thorsten Seyler, M.D.
Angela L.Hewlett, M.D.
Michael Henry, M.D.

Session VI BASIC SCIENCE
8:57-9:03 a.m. Transfusion of Older Blood Increases Bacterial Burden in a Validated Mouse Model of Spine Implant Infection
Peter P Hsiue; Chad R Ishmael; Sam Uweh; Clark J Chen; Kellyn R Hori; Howard Y Park; Zachary DC Burke; Eldad A Hod; Nicholas M Bernthal; Benjamin Kelley

9:04-9:10 a.m. Translational Challenges of Fluorescence Image-Guided Surgical Debridement in a Mouse Model of Spine Implant Infection
Peter P Hsiue; Chad R Ishmael; Kellyn R Hori; Clark J Chen; Cristina Villalpando; Howard Y Park; Steve D Zoller; Kevin P Francis; Nicholas M Bernthal; Danielle Greig

9:11-9:17 a.m. Fatty acid dispersal signals affect monocyte activation and nitric oxide release
Zoe Harrison; Daniel Baker; J Amber Jennings

9:18-9:24 a.m. Injectable mannitol chitosan blended paste prevents osteomyelitis in rabbit model
Leslie R Pace; Logan R Boles; Karen BEENKEN; Mark Smeltzer; J Amber Jennings

9:25-9:33 a.m. Discussion

Symposium #5 Molecular Diagnostics for Musculoskeletal Infection
9:34-10:24 a.m.

Next Generation Sequencing
MODERATOR: Thomas W. Bauer, M.D.,PhD.
Andy O. Miller, M.D.
Laura Donlin, PhD
Karan Goswami, M.D.

10:25-10:45 a.m. Refreshment Break - Museum Space / Manhattan Foyer
Visit Exhibitors and e-Posters – Museum Space

Session VII CLINICAL STUDIES
Moderator: Elie Berbari, M.D.; Arvind Nana, M.D.

10:46-10:52 a.m. Mycobacterium chimera (MC) Spondylodiscitis—A Medical and Surgical Collaboration
Bethany Lehman; Anita R. Modi; Maja Babic; Christopher Karakasis; R. Douglas Orr; Faisal Bakaeen; Steven M. Gordon

10:53-10:59 a.m. Development of a machine learning algorithm for prediction of failure of non-operative management in spinal epidural abscess
Akash A Shah; Aditya V Karhade; Christopher M Bono; Mitchel B Harris; Sandra B Nelson; Joseph H Schwab

11:00-11:06 a.m. Introducing a Novel Test for the Diagnosis of Native Vertebral Osteomyelitis
Talha Riaz; Matthew T Howard; Diehn E Felix; Aaron J Tande; Courtney K Ross; Paul M Huddleston; Elie F Berbari
11:07-11:13 a.m.  Factors Associated with In-Hospital Mortality in Necrotizing Fasciitis
Joseph Featherall; Joshua Lawrenz; Jaymeson Gordon; Jaret Karnuta; Deepak Ramanathan; Claus Simpfendorfer; Lukas Nystrom; Nathan Mesko; Maja Babic

11:14-11:22 a.m.  Discussion

11:23-11:29 a.m.  Patient Institutional Transfer During the Inter-stage Period of Two-Stage Periprosthetic Knee Infection Treatment Leads to Inferior Results
Simon Garceau; Yaniv Warschawski; Omar Dahduli; Ibrahim Alshaygy; Jesse Wolfstadt; David Backstein

11:30-11:36 a.m.  The Fate of Positive Intraoperative Cultures Following Conversion Total Hip Arthroplasty
Kyle H Cichos; Maxwell Detweiler; Javad Parvizi; Gerald McGwin; Johnatha H Quade; Elie Ghanem

11:37-11:43 a.m.  Investigating the Role of Serum Inflammatory Markers in Predicting Success of Two-Stage Prosthetic Hip Infection Revision
Simon Garceau; Ethan B Sanders; Alan Gross; Oleg Safir; Paul Kuzyk

11:44-11:50 a.m.  Sonication cultures obtained during presumed aseptic revision hip and knee arthroplasty are not predictive of future periprosthetic joint infection
Adam S Olsen; Alan E Wilson; Rebecca I Minorini; Michael J O'Malley; Kenneth L Urish; Brian R Hamlin; Lawrence S Crossett; Brian A Klatt

11:51-11:57 a.m.  The presence of a draining sinus is not a risk factor for two-stage exchange arthroplasty treatment failure
Alan E Wilson; Richard A Wawrose; Elena S Nikonova; Michael J O'Malley; Kenneth L Urish; Lawrence S Crossett; Brian A Klatt

11:58--12:06 p.m.  Discussion

12:07-12:35 p.m.  Introduction of Incoming President: Carlos Higuera-Rueda, M.D.
Barry D. Brause, M.D.

Presentation of Awards
Jon T. Mader Award; Jeanette Wilkins Award; e-Poster Award

Closing Remarks; Barry D. Brause, M.D.

Adjourn