

## Curriculum Vitae of Michael L. Swank, M.D.

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### **Personal Information**

Date of Birth: November 3, 1961  
Place of Birth: Sycamore, Illinois  
Citizenship: USA

### **Education**

Honors College Preparatory  
Saint Xavier  
Cincinnati, Ohio  
1975-1979

B. S., English and Psychology  
Georgetown University  
Washington, D. C.  
1979-1983

Medical School  
Northwestern University  
Chicago, Ill.  
1983-1987

### **Residency**

Northwestern University  
Department of Orthopaedics  
1987-1992

### **Fellowships**

Adult Reconstructive Surgery  
Charles Engh, MD  
Anderson Orthopaedic Institute  
Arlington Virginia  
1992-1993

Spinal Reconstructive Surgery  
Chester Sutterlin, MD  
Florida Fellowship In Reconstructive Spinal Surgery  
Gainesville, Fl.  
1993-1994

### **Private Practice**

Freiberg Orthopaedic and Sports Medicine  
Cincinnati, Ohio  
1994-2009

Reconstructive Orthopaedics and Sports Medicine, Inc.  
8099 Cornell Rd.  
Cincinnati, Ohio 45249  
2009-2019

Beacon Orthopaedics and Sports Medicine

500 E. Business way  
Sharonville, Ohio 45241  
2019- present

**State Medical License**

Ohio

Kentucky

Florida

**Board Certified**

American Board of Orthopaedic Surgery 1996  
Recertification: 2005  
Recertification: 2015

**Hospital Appointments**

None active

**Medical Associations**

American Association of Hip and Knee Surgeons  
American Academy of Orthopaedic Surgeons  
American Medical Association

**Professional Appointments**

President and Medical Director of Cincinnati Orthopaedic Research Institute

Medical Director of Beacon Orthopaedics Ambulatory Surgery Center

**Awards**

Cincinnati Top Doctors 2024, 2023, 2022, 2021, 2019, 2018,2017, 2016, 2015:  
<https://www.cincinnati.com/topdocs/>

Health Care Hero for Innovation by the Cincinnati Business Courier

Healthcare Award Winner by *Venue Magazine*

Meaningful Use Stage 1 Certification, Centers for Medicare & Medicaid Services, 2012

Business Courier, Health Care Heroes: Innovator of the Year award winner 2008

Top MD, Consumers Checkbook

Best Clinical Poster CAOS International 2006 “ Computer Assisted Orthopaedic Surgery With Ligament Balancing Technique Using An Internal Tension meter Lowers Manipulation Rate in Total Knee Replacement” M. Swank, L.Korbee

## **Published Articles**

Hunter M, Fawley DW, Diaz R, Barrett W, Croker S, Gorab R. (May 1, 2024) 5-year Survivorship of Total Hip Arthroplasty with a Proximally Coated, Medially Collared, Triple-Tapered Femoral Stem: A Retrospective, Multi-Center Registry Review. *Cureus* 16(5): e59462. DOI 10.7759/cureus.59462.

Nichols, Michael & Swank, Michael & Gaunder, Chris. (2023). Effects of Implantation Method on Biomechanical Alignment After Total Knee Arthroplasty: Data from A Southwest Ohio Orthopaedic Practice..

Fawley, David & Croker, Sean & Irving, John & Swank, Michael. (2023). Intermediate-Term Survivorship of Total Hip Arthroplasty With a Proximally Coated Tapered-Wedge Femoral Stem: A Retrospective, Multi-Center Registry Review. *Cureus*. 10.7759/cureus.36623.

Polymethyl methacrylate cure time in simulated in vivo total knee arthroplasty versus in vitro conditions. Daniel A. Funk, Quang-Viet Nguyen and Michael Swank  
*J Orthop Surg Res*. Published 2021 October 20. <https://doi.org/10.1186/s13018-021-02790-y>

Comparative Analysis of Hospital Length of Stay and Discharge Status of Two Contemporary Primary Total Knee Systems.

Etter K, Lerner J, Kalsekar I, de Moor C, Yoo A, Swank M.

*J Knee Surg*. 2018 Jul;31(6):541-550. doi: 10.1055/s-0037-1604442. Epub 2017 Aug 25

Variability in Distal Femoral Anatomy in Patients Undergoing Total Knee Arthroplasty: Measurements on 13,546 Computed Tomography Scans.

Meric G, Gracitelli GC, Aram LJ, Swank ML, Bugbee WD.

*J Arthroplasty*. 2015 Oct;30(10):1835-8. doi: 10.1016/j.arth.2015.04.024. Epub 2015 Apr 25.

Tibial Slope is Highly Variable in Patients Undergoing Primary Total Knee Arthroplasty: Analysis of 13,546 Computed Tomography Scans.

Meric G, Gracitelli GC, Aram L, Swank M, Bugbee WD.

*J Arthroplasty*. 2015 Jul;30(7):1228-32. doi: 10.1016/j.arth.2015.02.012. Epub 2015 Feb 17.

Low Incidence of Post-Operative Complications due to Pin Placement in Computer Navigated Total Knee Arthroplasty. R. F. Owens, M. L. Swank. *Journal of Arthroplasty*, 25(7): 1096-8. October, 2010.

Dermabond Efficacy in Total Joint Arthroplasty Wounds. A. G. Miller, M. L. Swank.

*American Journal of Orthop.*, 39(10): 476-8. October, 2010.

Unusual Presentation of Cobalt Hypersensitivity in a Patient with a Metal-on-Metal Bearing in Total Hip Arthroplasty. M. Alkire, V. Perumal, M. L. Swank. *American Journal of Orthop.* 39(5): E39-41. May, 2010.

Use of Inpatient Continuous Passive Motion vs. No CPM in Computer-Assisted Total Knee Arthroplasty. M. Alkire, M. L. Swank. *Orthop. Nurs.* 29(1):36-40. January, 2010.

Section VIII: Novel approaches to imaging and tracking of hip topology.

Stubbs AJ, Kim YJ, Swank ML. *J Bone Joint Surg Am*. 2009 Feb;91 Suppl 1:137. doi: 10.2106/JBJS.H.01453.

Novel Approaches to Imaging and Tracking of Hip Topology. Section VIII. Y. J. Kimand, A. J. Stubbs, M. L. Swank. Journal of Bone Joint Surg. AM. February, 2009.

Technology and Cost Effectiveness in Knee Arthroplasty; Computer Navigation and Robotics. M. Alkire, M. Conditt, J. H. Lonner, M. L. Swank. American Journal of Orthop. February, 2009.

Role of Navigation in Total Hip Arthroplasty. T. Kelley, M. L. Swank. Journal of Bone Joint Surg. AM. February, 2009.

Minimally Invasive Hip Resurfacing Compared to Minimally Invasive Total Hip Arthroplasty. M. Alkire, M. L. Swank. Bull. NYU Hosp. Jt. Dis. January, 2009.

Computer-Assisted Surgery in Total Knee Arthroplasty: Experience with the Vector Vision ® and Ci™ Navigation System for Mobile Bearing Total Knee Arthroplasty. T. Kelley, M. L. Swank. Techniques in Knee Surgery. 7(3): 144-152, September, 2008.

Getting it Right with Navigation: Imageless Navigation in Hip Resurfacing. Avoiding Component Malposition during the Surgeon Learning Curve. J. Romanowski, M. L. Swank. Journal of Bone Joint Surg. AM., 90; 65-70, August, 2008.

Ligament Balancing in Computer Assisted Total Knee Arthroplasty: Improved Clinical Results with a Spring Loaded Tensioning Device. S. Bignozzi, L. Korbee, J. Romanowski, M. L. Swank. Journal of Engineering in Medicine, 221(7): 755-762. October, 2007.

Computer Navigation: Does it Make You a Better TKA Surgeon? M. I. O'Connor, W. J. Robb, J. B. Stiehl, M. L. Swank, R. L. Wixson. Jan/Feb 2007 AAOS Now February 9, 2007.

Computer Assisted Surgery in Total Knee Arthroplasty. M. Swank, L. Korbee Techniques in Knee Surgery, 5(4): 228-237, December 2006.

Computer Assisted Surgery—Orthopaedic Navigation in Total Joint Replacement. M Swank. Submitted for publication in US Musculoskeletal Disease 2006, Vol 1 pg 85-87 June 2006.

Computer-assisted surgery for total knee arthroplasty and the changing role of orthopedic theatre personnel M Swank, IE Lehner. AORN. October, 2005

Computer-assisted surgery in total knee arthroplasty: recent advances. Swank ML. Surg Technol Int. 2004;12:209-13.

Computer-Assisted Surgery in Total Knee Arthroplasty. Surgical Technology International, Vol. XII, Recent Advances 209-213. November, 2004

Health Related Quality of Life Using the SF36 in Patients with Bipolar Disorder Compared to Patients with Chronic Back Pain and the General Population. L.M. Arnold, K.A. Witzman, BS, M.L. Swank, P. Keck Jr., S.L. McElroy. Journal of Affective Disorders, 57:235-239, 2000.

Anterior Cervical Allograft Arthrodesis and Instrumentation: Multilevel Interbody Grafting and Strut Graft Reconstruction. M. Swank, M.D., G. Lowery, M.D., Ph.D., R. McDonough, B.S., A. Allen, M.S., M.A. European Spine Journal, 6:138-143, 1997.

Rigid Internal Fixation With Lateral Mass Plates in Multilevel Anterior and Posterior Reconstruction of the Cervical Spine. M. Swank, M.D., C. Sutterlin III, M.D., C. Bossons, B.S., B. Dials, M.L.A. Spine, 22:3:224-282, 1997.

Posterior Cervical Arthrodesis and Stabilization with a Lateral Mass Plate, Clinical and CT Evaluation of Lateral Mass, Screw Placement and Associated Complications. A. Graham, M.D., M. Swank, M.D., R. Kinard, M.D., G. Lowery, M.D., Ph.D. Spine, 21:3:323-329, 1996.

Surgical Revision for Failed Anterior Cervical Fusions: Articular Pillar Plating or Anterior Revision? G. Lowery, M.D., Ph.D., M. Swank, M.D., R. McDonough, B.S. Spine, 20:22:2436-2441, 1995.

Walking Ability in Spina Bifida Patients: A Model for Predicting Future Ambulatory Status Based on Sitting Balance and Motor Level. M. Swank, M.D., L. Dias, M.D. Journal of Ped. Ortho. 1994; 14: 6.

Unicompartmental Knee Arthroplasty: An Eight Year Follow up Study With Survivorship Analysis. M. Swank, M.D., S.D. Stulberg, M.D., J. Jiganti, M.D., S. Machairas, M.D. Clin. Orth. Rel. Res. 1993; 286: 130-42.

Myelomeningocele: A Review of the Orthopaedic Aspects of 206 Patients Treated from Birth with No Selection Criteria. M. Swank, M.D., L. Dias, M.D. Dev. Med. and Child Neur. 1992; 34: 1047-1052.

### **Published Abstracts**

Fawley D, Kindsfater K, Dalury DF, Gorab R, Barrett WP, Alton T, Pomeroy D, Irving JF, Swank M, Spitzer A, Croker S. Plus 4 and Neutral Liners in Primary Total Hip Arthroplasty: Review of Survivorship and Clinical Outcomes From a Multi-Center Registry. [Poster Presentation # 9162] In: International Society for Technology in Arthroplasty (ISTA). August 28-31; Nashville, TN.

Swank M, Croker C, Fawley D. Does Patellar Component Style Matter? Comparison of Medialized Dome and Anatomic Patellar Components Used in Primary Total Knee Arthroplasty. [Poster Presentation #1986] In: European Federation of National Associations of Orthopaedics and Traumatology; May 22-24, 2024; Hamburg, Germany.

Kindsfater, KA, Dalury, DF, Spitzer, AI, Irving, JF, Barrett, WP, Swank, ML, Pomeroy, DL, Croker, S, Fawley, DW, Bridgens, J, Gorab, RS. Multi-Center Outcomes Using a Porous-coated Acetabular Component in Primary THA. [e-Poster #98] In: Western Orthopaedic Association; August 2-5, 2023; Coeur d'Alene, Idaho, USA.

Kindsfater, KA, Dalury, DF, Spitzer, AI, Irving, JF, Barrett, WP, Swank, ML, Pomeroy, DL, Croker, S, Fawley, DW, Bridgens, J, Gorab, RS. Survivorship and Clinical Outcomes Using a Porous-coated Acetabular Component in Primary Total Hip Arthroplasty: A Multi-center Registry Review. [Poster #1152]. In: European Federation of National Associations of Orthopaedics and Traumatology; May 24-26, 2023; Vienna, Austria.

Kindsfater, KA, Dalury, DF, Spitzer, AI, Irving, JF, Barrett, WP, Swank, ML, Pomeroy, DL, Croker, S, Fawley, DW, Gorab, RS. Survivorship and Clinical Outcomes Using a Porous-coated Acetabular Component in Primary Total Hip Arthroplasty: A Multi-center Registry Review. [Electronic Poster and Presentation]. In: Israel Orthopaedic Association; January 25-26, 2023; Tel Aviv, Israel.

Michael Hunter<sup>1</sup> , John Irving<sup>2</sup> , William Barrett<sup>3</sup> , Michael Swank<sup>4</sup> , Sean Croker<sup>5</sup> , David Fawley<sup>5</sup> , Robert Gorab<sup>1</sup> (2022). "Low Early Complication Rate And High 4-Year Survivorship Following Implantation Of A New Femoral Stem Design: A Multi-Center Registry Review"

Pomeroy, DL, Swank, ML, Irving, JF, Croker, S, Fawley, DW, Spitzer, AI. Two-Year Survivorship And Clinical Outcomes Of Total Knee Arthroplasty With A New Tibial Design From A Multi-Center Registry. [Abstract and Poster Presentation #658]. In: European Federation of National Associations of Orthopaedics and Traumatology; June 22-24, 2022; Lisbon, Portugal.

Swank, ML, Leopold, J, Fawley, DW. Seven Year Survivorship of Total Hip Arthroplasty with a Proximally Coated Tapered-Wedge Femoral Stem. [Abstract and Presentation]. In: Asia Pacific Arthroplasty Society Meeting; July 17, 2021; Virtual.

Low Incidence of Post Operative Complications Due to Reference Array Pin Placement in Image Free Computer Assisted Total Knee Replacement ML Swank, MD, L Korbee Computer Assisted Orthopaedic Surgery, 6<sup>th</sup> Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2006.

Computer Assisted Orthopaedic Surgery With Ligament Balancing Technique Using An Internal Tensionometer Lowers Manipulation Rate In Total Knee Replacement. ML Swank, MD, L Korbee Computer Assisted Orthopaedic Surgery, 6<sup>th</sup> Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2006.

Imageless Navigation in Minimally Invasive Total Hip Replacement with a Posterior Approach: Excellent Clinical Results and Radiographic Alignment. ML Swank, MD Computer Assisted Orthopaedic Surgery, 5<sup>th</sup> Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2005.

CAS Enabled Minimally Invasive TKA: Better Clinical Results and Better Mechanical Alignment than Mechanical Instruments. ML Swank, MD. Computer Assisted Orthopaedic Surgery, 5<sup>th</sup> Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2005.

Computer Assisted Total Hip Replacement—Planning and Outcome ML Swank, M.D. Computer Assisted Orthopaedic Surgery, 4<sup>th</sup> Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2004.

Clinical Validation of a Novel spring Loaded Tensioning Device and Computer Assisted Navigation S. Bignozzi, JL Briard, M Marcacci, M Swank. Computer Assisted Orthopaedic Surgery, 4<sup>th</sup> Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2004.

CT Based Image Guided Surgery vs. Conventional Intramedullary Instrumentation in Total Knee Arthroplasty. M L Swank, M.D. Computer Assisted Orthopaedic Surgery, 3<sup>rd</sup> Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2003.

Titanium Mesh in Cervical Spine Reconstruction: The North American Experience. G. Lowery, M.D., Ph.D., M. Swank, M.D., R. McDonough, B.S. Orthopaedic Transactions, 1997:21:3.

Salvage Reconstruction of Failed Anterior Cervical Surgeries, M. Swank, M.D., G. Lowery, M.D. Ph.D., J. Vega, P.A.C., R. McDonough, B.S., A. Allen, M.A. Orthopaedic Transactions, 1995:19:3.

Polyethylene Failure in Metal Backed Unicompartamental Tibial Components, M. Swank, M.D., N. Park, M.S., G. Engh, M.D. Orthopaedic Transactions, 1995:19:3.

Hip Arthroplasty in the Young Patient: Social and Economic Impact. M. Swank, M.D., G. Macalino, M.P.H. Orthopaedic Transactions 1994; 18:3.

Medial Compartment Unicompartamental Knee Arthroplasty: A Clinical and Radiographic Outcome Study with Cost Analysis. M. Swank, M.D., G. Engh, M.D., N. Parks, M.S. Orthopaedic Transactions 1994; 18:3.

Structural Autogenous Bone Grafting of Tibial Defects in Primary Total Knee Arthroplasty. M. Swank, M.D., G. Engh, M.D., N. Parks, M.S. Orthopaedic Transactions 1994; 18:3.

The Natural History of Unicompartamental Arthroplasty: An Eight-Year Follow-Up Study with Survivorship Analysis. M. Swank, M.D., S.D. Stulberg, M.D., J. Jiganti, M.D., S. Machairas, M.D. Orthopaedic Transactions 1992; 16:3.

The Natural History of the Spina Bifida Child: the First Ten Years. M. Swank, M.D., Dias, M.D. Orthopaedic Transactions 1989; 13:3.

### **Published Media**

“Beacon Orthopaedics: A Top Doc is Pioneer in Orthopaedics” article published by Christy Heitger-Ewing. Venue Cincinnati Magazine. April 3, 2022. Beacon Orthopaedics: A Top Doc is Pioneer in Orthopaedics | Health Care | [venuecincinnati.com](https://www.venuecincinnati.com)

“Hall of Fame Health Designates Beacon Orthopaedics as 1 of 25 ‘Elite Care Centers’ in the Country” December 22, 2021 <https://www.beaconortho.com/blog/hall-of-fame-health-designates-beacon-orthopaedics-as-1-of-25-elite-care-centers-in-the-country/?return=/physician/michael-l-swank-m-d/insights/>

“Making a Plan for the Perfect Fit: Customizing Knee Implants” article published by Christy Heitger-Ewing. Venue Cincinnati Magazine. July 26, 2021. [https://www.cdomagazine.tech/venuecincinnati/health-care/making-a-plan-for-the-perfect-fit-customizing-knee-implants/article\\_783c7062-ee06-11eb-84cc-933232bb9bfc.html](https://www.cdomagazine.tech/venuecincinnati/health-care/making-a-plan-for-the-perfect-fit-customizing-knee-implants/article_783c7062-ee06-11eb-84cc-933232bb9bfc.html)

“IN&OUT: Patients Safely Experience Outpatient Joint Surgery” article published by Christy Heitger-Ewing. Venue Cincinnati Magazine. May 26, 2021; May 10, 2022 [https://www.cdomagazine.tech/venuecincinnati/health-care/in-out-patients-safely-experience-outpatient-joint-surgery/article\\_66646ddc-a68e-11eb-9043-6b510e0a584e.html](https://www.cdomagazine.tech/venuecincinnati/health-care/in-out-patients-safely-experience-outpatient-joint-surgery/article_66646ddc-a68e-11eb-9043-6b510e0a584e.html)

“A Walk A Day Can Keep The Orthopaedic Doctor Away” article published by Christy Heitger-Ewing. Venue Cincinnati Magazine. February 11, 2021. May 10, 2022

[https://www.cdomagazine.tech/venuecincinnati/business/a-walk-a-day-can-keep-the-orthopaedic-doctor-away/article\\_d7ad1638-6c78-11eb-bef8-03cec35772f6.html](https://www.cdomagazine.tech/venuecincinnati/business/a-walk-a-day-can-keep-the-orthopaedic-doctor-away/article_d7ad1638-6c78-11eb-bef8-03cec35772f6.html)

Dr. Swank – Total Joint Replacement & Arthritis in Cincinnati, Ohio:  
<https://www.youtube.com/watch?v=1-hAZBsXDBE>

Dr. Swank on Cincy Lifestyle discussing Total Joint Replacements & Arthritis:  
<https://www.youtube.com/watch?v=FA6kHnCl0fw&t=1s>

FOX19 Business Spotlight: Dr. Michael Swank:  
<https://www.youtube.com/watch?v=VX9F-hmvKKE>

“With a Push from The Pandemic, Outpatient Joint Surgery Delivers Safe Outcomes”  
<https://www.cincinnati.com/article/with-a-push-from-the-pandemic-outpatient-joint-surgery-delivers-safe-outcomes/>

“Walk it Off: Orthopedics and Healthy Weight”  
<https://www.beaconortho.com/blog/walk-it-off-orthopaedics-and-healthy-weight-week-january-17-23/?return=/physician/michael-l-swank-m-d/insights/>

“Beacon Orthopaedics Reaches Four Thousand Outpatient Total Joint Replacements Performed”  
<https://www.beaconortho.com/blog/beacon-orthopaedics-reaches-four-thousand-outpatient-total-joint-replacements-performed/?return=/physician/michael-l-swank-m-d/insights/>

“A Hike a Day is the Orthopaedic Doctor’s Way”  
<https://www.beaconortho.com/blog/a-hike-a-day-is-the-orthopaedic-doctors-way/?return=/physician/michael-l-swank-m-d/insights/>

“After Double Knee Replacement, Former College Athlete Still Active at 71” article published by The Cincinnati Enquirer on Cincinnati.com on September 2, 2020.  
<https://www.cincinnati.com/story/sponsor-story/beacon-orthopaedics-and-sports-medicine/2020/09/02/after-double-knee-replacement-former-college-athlete-still-active-71/3446233001/>

“Custom-Designed Knee Replacement” article published by The Cincinnati Enquirer on Cincinnati.com on March 5, 2018.  
<https://www.cincinnati.com/story/sponsor-story/orthocincy/2018/03/05/custom-designed-knee-replacement/36> [https://www.cdomagazine.tech/overcoming-pain-off-the-bench-and-back-in-the-game/article\\_610f9dc1-6d99-5360-9b97-84c831b93e9c.html4061002/](https://www.cdomagazine.tech/overcoming-pain-off-the-bench-and-back-in-the-game/article_610f9dc1-6d99-5360-9b97-84c831b93e9c.html4061002/)

“Overcoming Pain: Off the Bench and Back in the Game” article published by Brian Ambes. Venue Cincinnati Magazine. July 14, 2014.  
[https://www.cdomagazine.tech/overcoming-pain-off-the-bench-and-back-in-the-game/article\\_610f9dc1-6d99-5360-9b97-84c831b93e9c.html](https://www.cdomagazine.tech/overcoming-pain-off-the-bench-and-back-in-the-game/article_610f9dc1-6d99-5360-9b97-84c831b93e9c.html)

## **Clinical Trials**

Journey II XR Safety and Effectiveness PMCF Clinical Trial  
A Prospective, Multicenter, Post-Market Clinical Follow-up Study to Evaluate the Safety and Effectiveness of the JOURNEY II XR Total Knee System. 2017 May.



#### Locations:

- Loma Linda University Dept of Orthopaedic Surgery, Loma Linda, CA, US
- Holy Cross Orthopedic Institute, Ft Lauderdale, FL, US
- Castle Orthopaedics & Sports Medicine, S.C., Aurora, IL, US
- Midwest Orthopaedics at Rush, Chicago, IL, US
- Anne Arundel Medical Center, Annapolis, MD, US
- DeClaire LaMacchia Orthopaedic Institute, Rochester, MI, US
- Reno Orthopaedic Center, Reno, NV, US
- Mercer Bucks Orthopaedics, Hamilton, NJ, US
- NYU Hospital for Joint Diseases/NYU Langone Medical Center, New York, NY, US
- Hospital for Special Surgery, New York, NY, US

#### MED Study

Evaluation of the Measuring Every Day, Patient-Incentive Device, as an Adjunct to Conventional Physical Therapy in the Acceleration of Flexion and Extension Capability in the Post-operative Total Knee Arthroplasty Patient: A Prospective, Randomized Study. 2016 September.

#### Journey II BCSA

Non-randomized, prospective study of short term outcomes following total knee replacement with Journey II BCS Total Knee System Compared to Other Posterior Stabilized Total Knee Systems in a Physical Therapy setting. 2016 August.

#### Journey II CR Total Knee System Clinical Trial

A Prospective, Non-Randomized, Single Cohort, Multicenter Study to Evaluate the Clinical Outcomes of Total Knee Arthroplasty (TKA) Using the JOURNEY II- CR Total Knee System JOURNEY™ II CR Total Knee System. Start of enrollment: 2015 Sep 01. Chow J.,Geller J.,Gerlinger T.,Lang J.,Podany E.,Swank M.

#### Locations:

- Orthopedic Institute of the West, Phoenix, AZ, US
- Rush University Medical Center, Chicago, IL, US
- Anne Arundel Medical Center, Annapolis, MD, US
- Center for Hip and Knee Replacement at Columbia University Medical Center, New York, NY, US
- Wake Forest University, Winston-Salem, NC, US
- The Lindner Research Center, MSK Division – The Christ Hospital, Cincinnati, OH, US
- Hospital Parc Tauli Servei de Cirurgia Ortopèdica, Barcelona, Spain
- Royal National Orthopaedic Hospital NHS Trust, Stanmore, UK
- Barts Health NHS Trust, Whitechapel, UK

#### Persona TKA Outcomes Study

A Prospective, Post Market Follow-up Study to Assess Clinical Outcomes of Persona Knee System. 2015 April.

#### Oxinium Clinical Trial

A Multi-Center, Randomized Controlled Study of Efficacy and Safety of the Oxinium DH Total Hip Replacement System in Subjects with Non-Inflammatory Arthritis. 2014 December.

A Multicenter Study to Evaluate the ConforMIS iTotal® (CR) Knee Replacement System Versus Off-the-Shelf Replacement. 2014 January. Ball S.,Johnson D.,O'connor M.,Quartulli M.,Smith E.,Swank M.

Study With the ConforMIS iDuo(R) G2Start of enrollment: 2012 May 01. Huber, B.,Jones, D.,Davis, K.,Morse, L.,Rolston, L.,Swank, M.,Sinha, R.,Foglesong, S.,Pawlak,S.

A Multicenter, Multinational, Randomized, Double-Blind, Comparison of Subcutaneous ORG31540/SR90107A with Enoxaparin in the Prevention of Deep Vein Thrombosis and Symptomatic Pulmonary Embolism after Elective Major Knee Surgery or a Revision. Phase III, FDA Clinical Trial.

CaptureWare 2000 National Database for Orthopaedic Outcomes. 2001-Current

Comparison of the Safety and Efficacy of Patient Controlled Analgesia Delivered by Fentanyl HCl Transdermal System Versus Morphine IV Pump for Pain Management after Primary Unilateral Total Hip (JH 04-04)

A Randomized Multi-Center Study to Evaluate the Safety and Efficacy of the Cervical I/F Cage for Anterior Cervical Fusion. (JH 01-05) 2001- Current

An Open Label, Randomized Parallel Group Study to confirm the Safety and efficacy of PROCRT (Epoetin alfa) Administered Perioperatively vs. the Standard of Care in Blood Conservation in Subjects Undergoing Major Elective Spinal Surgery. (JH-01-27) 2002-2005.

Study of the Genesis II Mobile Bearing Knee System. (JH-03-01) 2001

Randomized Third-Party Blinded Multicenter Clinical Trial to Determine the Safety and Efficacy of Oxiplex/SP Gel for the reduction of Pain and Radiculopathy Following Lumbar Disc Surgery. (JH 02-21) 2002-2006.

Clinical Evaluation of a Minimally Invasive Approach to Total Hip Replacement Surgery (MIS Hip). (JH 03-04) 2003

CAS Positive Financial Impact Study (JH 05-05) 2005

Factor Xa Inhibitor Study Phase II for Portola Pharmaceuticals. 2006

CAS Birmingham Hip Resurfacing Study. 2006

Clinical Evaluation of An Image Guided Approach to Minimally Invasive Total Hip Replacement Surgery (IGS-MIS Hip). 2003

De Puy Orthopedics Protocol. "Computer Assisted Surgery Sensor Tensor Surgical Technique." 2003

Clinical Evaluation of the VectorVision Navigation System (BrainLAB Knee and Hip Project). 2002-2003.

A Multicenter, Randomized, Double Blind, Placebo-and Active-Controlled Comparison of the Safety and Efficacy of Dirame® (Propiram Fumarate 50 mg, 100 mg, and 150 mg), Oxycodone (5 mg), and Placebo in the Treatment of Moderate to Severe Pain After Total Hip Replacement Surgery. Phase III FDA Clinical Trial. 2002.

A Randomized, Double Blind, Active-Controlled (Enoxaparin), Parallel Group, Dose-Response Study Of DPC 906 For The Prevention Of Deep Vein Thrombosis In Knee Replacement Surgery. Phase II, FDA Clinical Trial. 1999.

A Multi-center Study to Evaluate the Safety and Efficacy of DePuy AcroMed Titanium Surgical Mesh and MOSS-Miami Spinal Fixation System Pedicle Screws for Intradiscal Fusion in the Lumbar Spine. FDA Investigational Device Exemption Clinical Trial. 2002.

Clinical Evaluation of Perioperative Hemoglobin and the Relationship to Postoperative Vigor in Patients Undergoing Total Joint Arthroplasty. Phase IV, FDA Clinical Trial. 1999-2000.

Evaluation of the Metal Articulation with Ultima M.O.M. Total Hip System-Cemented. FDA, Investigational Device Exemption Clinical Trial. 1999-2002.

The Accuracy Of Placement Of Lumbar Pedicle Screws Placed By Conventional Fluoroscopic Technique Compared To Screws Placed With An Intraoperative, Computer-Guided Tracking System (OTS): A Prospective, Case Controlled Study Using CT Imaging. M. Swank, M.D., C. Willison, M.D., P.R. Schwetschenau, M.D. 1997-1998.

Cost-Effectiveness of a Peri-Operative Transfusion System in Patients Undergoing Elective Hip and Knee Replacement Surgery as an Alternative to Autologous Blood Donation. M. Swank, M.D. 1999

The Clinical and Cost Effectiveness of Four Different Treatment Methods for Preventing Epidural Scar Formation After Unilateral Lumbar Discectomy: A Prospective Clinical and MRI Evaluation. M. Swank, M.D. 2000-2001

### **Oral Presentations At Peer Reviewed Meetings and Invited Lectureships and Laboratory Courses**

“Low Early Complication Rate And High 4-Year Survivorship Following Implantation Of A New Femoral Stem Design: A Multi-Center Registry Review” Michael Hunter<sup>1</sup> , John Irving<sup>2</sup> , William Barrett<sup>3</sup> , Michael Swank<sup>4</sup> , Sean Croker<sup>5</sup> , David Fawley<sup>5</sup> , Robert Gorab<sup>1</sup> (2022).

“Two-Year Survivorship And Clinical Outcomes Of Total Knee Arthroplasty With A New Tibial Design From A Multi-Center Registry” Donald Pomeroy<sup>1</sup> , Michael Swank<sup>2</sup> , John Irving<sup>3</sup> , Sean Croker<sup>4</sup> , David Fawley<sup>4</sup> , Andrew Spitzer<sup>5</sup> (2022)

“Safety and Performance of the Journey II Cruciate Retaining Total Knee System: A Prospective, Multicentre Study” Jordi Villalba, James MacDonald, Tad Gerlinger, James Chow , Michael Swank, Jeffrey A. Geller, Herbert Cooper, Jonathan Miles, Amir Kamali, Pramod Achan.

- British Orthopaedic Association Annual Congress Meeting, Sept 21-24, 2021.

Seven Year Survivorship of Total Hip Arthroplasty with a Proximally Coated Tapered-Wedge Femoral Stem. ML Swank, MD. July 10-17-24, 2021. APAS Virtual Meeting

Hip & Knee Symposium 2007, Nov 9-10, Anderson Orthopaedic Research Institute. Imageless navigation in hip resurfacing: Does it decrease complications during the surgeon learning curve” M. Swank.

Poster P31, the use of transverse acetabular ligament for acetabular cup placement in computer-assisted total hip replacement. M. Swank, M. Alkire, L. Korbee, J. Grote.

Poster P32 Reducing cardiac complications after total joint replacement, M.Swank, M. Alkire.

ISTA 2007, Oct. 4-6, Paris, France. Paper B 4-5 Comparison of Mechanical axis measurements: Intraarticular navigation vs. postoperative standing films. J. Smail, M. Swank.

“Titanium Surgical Mesh and Local Bone Graft Eliminates the Need for Iliac Crest Autograft or Allograft in Anterior Cervical Reconstructions” North American Spine Society 2003 Annual Meeting, Oct 22-26, 2003.

Seminar of complex total knee procedures, St John, US Virgin islands, March 7-10, 2007. CAS ligament balance in RP knees using an internal tensiometer. M. Swank.  
ISTA 2006, Oct. 6-9, Roosevelt Hotel, New York City.

ISTA 2005 – Kyoto, Sept. 24 – Oct. 2. Clinical Validation of a Spring-Loaded Tension Device and Computer-Assisted Navigation, Swank, ML. Poster 11-4.

“Intra-operative Navigation in THA” Update in Hip Surgery 2004, Seoul, Korea, June 5, 2005.

“The Promises and Challenges of Computer-Assisted Surgery” 2004 Minimally Invasive Hip Arthroplasty Techniques, Orthopaedic Learning Center (OLC), Rosemont, Illinois February 2, 2004.

“The Whys and Hows of Image Based Navigation” Instructional Course, American Academy of Orthopaedics 2004 Annual Meeting, San, Francisco, California, March 12, 2004.

“Image Based vs. Image Free Navigation in THR and TKR Surgery: Pros and Cons” Instructional Course, American Academy of Orthopaedics 2004 Annual Meeting, San, Francisco, California, March 12, 2004.

“Computer Assisted Total Joint Surgery” Make a Difference: Updates in Orthopaedic Surgery and Musculoskeletal Therapeutics Marco Island, Florida, March 26, 2004

“Clinical Results of DePuy LCS Knees Navigated with CAS” Innovations in CAS, Frankfurt, Germany, April 1, 2004.

“CT vs. CT Free CAOS for TKR/THR” and “CAOS/MI Hip Video Vignettes” MIS Meets CAOS, Pittsburgh, Pennsylvania, April 16, 2004.

“Lumbar Fusion is Inadequate For The Treatment of Recurrent Lumbar Disc Herniation: New Alternatives Need To Be Found” for the 7<sup>th</sup> International ARGOS Symposium, Jan 30-31, 2003, Paris, France.

“Physical Therapy After Instrumented Lumbar fusion Surgery: One Visit vs. Eight visit Protocol” for the 70<sup>th</sup> Annual AAOS Meeting, February 4-9, 2003, New Orleans, Louisiana.

“The Promises and Challenges of Computer-Assisted Surgery” for the Presbyterian Institute for Minimally Invasive Technology, February 20-21, 2003, Dallas, Texas.

“Minimal Access Spinal Technologies” a laboratory course at the Medtronic Satellite Training Center, March 27-28, 2003, Cleveland, Ohio

“Image Guided Surgery” for the Masters Series Revision Course, Orthopaedic Learning April 13-14, 2003, Chicago, Illinois.

“Fundamental Principles and Techniques in Spinal Surgery” Medical Education and Research Institute, May 8-10, 2003, Memphis, Tennessee.

“The Promises and Challenges of Computer-Assisted Surgery” Grand Rounds at the University of Chicago Pritzker School of Medicine, May 21, 2003, Chicago, Illinois.

“CT Based Navigation for Knees and MIS Hips” at the MIS Meets CAOS Symposium, May 30-June 1, 2003, Pittsburgh, Pennsylvania.

Participant, “MITKR Meeting” Orthopaedic Learning Center, June 3-4, 2003, Chicago, Illinois.

“CT Based Image Guided Surgery vs. Conventional Intramedullary Instrumentation in Total Knee Arthroplasty” for 3<sup>rd</sup> Annual Meeting of the Int’l Society of Computer Assisted Orthopaedic Surgery, June 18-21, Marbella, Spain.

“Titanium Surgical Mesh and Local Bone Graft Eliminates the Need for Iliac Crest Autograft or Allograft in Anterior /Posterior Cervical Reconstructions” at the 10<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), July 10-12, 2003, Rome, Italy.

“Equation System Focus Group-Philosophical Indications” Equation Focus Group Meeting, July 18, 2003, Chicago, Illinois.

“2003 Minimally Invasive Hip Arthroplasty Techniques” Presbyterian Institute for Minimally Invasive Technology, July 31-August 1, 2003, Dallas, Texas.

”Basics of Computer assisted Navigation for Hip and Knee Replacements” and “CT Based Image Guided Surgery vs. Conventional Instrumentation in Total Knee Arthroplasty” 2003 Engh Society Reunion, September 4-5, Alexandria, Virginia.

“The Promises and Challenges of Computer-Assisted Surgery” September 11, 12 2003, Norfolk, Virginia

“The Promises and Challenges of Computer-Assisted Surgery” Orthopaedic Learning Center, Minimally Invasive Hip Replacement Course, Sept 14-15 2003, Chicago, Illinois.

“The Promises and Challenges of Computer-Assisted Surgery” and “Polyethylene Wear of Mobile Bearing Knees”, OctoberFest Orthopaedic Meeting, Cincinnati, Ohio Sept. 19, 2003.

“Early Experience With A CT Based Image Guided System for Total Knee Arthroplasty.” M. Swank, M.D.

- -2<sup>nd</sup> Annual Meeting CAOS International, Santa Fe, NM, June 2002.

“CT Based Image Guided Surgery vs. Conventional Intramedullary Instrumentation in Total Knee Arthroplasty: Alignment Study and Clinical Outcome Study” and “CT Based vs. CT Free total Knee Arthroplasty: Early Experience” ISTA 2003, Sept 24-27, San Francisco, California.

“CAS-TKR Navigation” Ci Asia-Pacific Launch. Oct 9-12 Adelaide, Australia.

“CT Based Navigation for Knees and MIS Hips” MIS Meets CAOS Fall symposium, October 16-18, 2003, Pittsburgh, Pennsylvania.

“MAST Instrumentation Satellite Lab” Medtronic Sofamor Danek, November 4, 2003, Detroit, Michigan

“Fundamental Principles and Techniques in Spinal Surgery” sponsored by Medtronic Sofamor Danek, Jan 3-5, 2002, Memphis, TN

“Contemporary Techniques & Issues in Orthopaedics” sponsored by DePuy in Whistler, BC, March 6-10.

“Image Guided Surgery for Total Joint Replacement” sponsored by DePuy in Winston-Salem, NC May 6, 2002

“Early Experience With a CT Based Image Guided System for Total Knee Arthroplasty” for CAOS, Santa Fe, NM June 19-23, 2002

“The Promises and Challenges of Computer Assisted Surgery” DePuy VIP course, June 21, 2002

“Cervical Pedicle Screw Fixation in Multilevel Cervical reconstructions: An Analysis of the Safety and Efficacy of 100 Consecutive Pedicle Screws Placed At C7 or T1.” M. Swank, M.D.

- Twenty-Eight Annual Meeting of Cervical Spine Research Society, Charleston, SC, November 2000.
- -69<sup>th</sup> Annual Meeting AAOS, Dallas TX, February, 2002

Micro TLIF Surgeon Visitation Program and research opportunities, DePuy AcroMed Aug. 16, 2002, Raynham, MA

“Advanced Course in Anterior Spinal Instrumentation-Open and minimally Invasive Techniques” Sponsored by DePuy AcroMed, Aug 23-25, 2002 San Diego, CA

“Image Guided Total Joint Arthroplasty” for The Engh Society, Sept 14-15, 2002, Alexandria, VA.

“Adjacent Segment Failure” for the Scoliosis Research Society” Sept 19-22, 2002, Seattle, WA.

Current Use of Intraoperative Navigation” at the Harvard Hip and Knee Course, Oct. 1-6, 2002, Boston, MA

“Adjacent Segment Failure” for the North American Spine Society, Oct 30-Nov2, 2002, Montreal, Canada.

“The Future of Technology” for the New Jersey Orthopaedic Society, Nov 8, 2002, Galloway, NJ

“The Future of Technology” for DePuy, Nov 14, 2002, Dallas, TX.

“Computer Aided Surgery Evaluators Meeting” Nov19-24, 2002 sponsored by DePuy, Paris, France.

“Multilevel Decompression And Reconstruction Of The Cervical Spine: A Review Of The Clinical Efficacy and Complications Of 50 Consecutive Cases Treated With Anterior And Posterior Internal Fixation.” 29<sup>th</sup> Annual Meeting Cervical Spine Research Society, Monterey, CA, December 2001. 16<sup>th</sup> Annual Meeting North American Spine Society, Seattle, WA. November 2001.

“Postoperative Transfusion Requirements in Primary Hip and Knee Arthroplasty: A Prospective Assessment of a Novel Perioperative Salvage System (Orthopat, <sup>TM</sup>) and Postoperative Transfusion Requirements in Primary Hip Arthroplasty: A Prospective Assessment of Autologous Blood Donation Versus a Novel Perioperative Salvage System” Orthopat Mid-America Orthopaedic Association 2001 Annual Meeting, Amelia Island, FL, April 2001.

“Prospective Evaluation of an Intraoperative Computer-Enhanced System for Placement of Vertebral Body Screws into the Spine with the Aid of a Computer-Assisted Device.” M Swank, M.D., C. Willison, M.D., P.R. Schwetschenau, M.D.

- Mid-America Orthopaedic Association 2001 Annual Meeting, Amelia Island, FL, April 2001.

“Prognostic Value of Hoffmann’s Sign as an Indicator of Cervical Spinal Stenosis in Patients with Chronic Low Back Pain.” M Swank, MD, C Willison, MD, C Ritter.

- 15<sup>th</sup> Annual Meeting, Section on Disorders of the Spine and Peripheral Nerves, of the American Association of Neurological Surgeons and Congress of Neurological Surgeons, Lake Buena Vista, FL, February, 1999.

“A Two-Year Prospective, Randomized Study of Pedicle Screw Fixation.” C Sutterlin, MD, R Wisneski, MD, FT Wetzel, MD, C Michelsen, MD, C Dickman, MD, P Barrett, MD, E Feild, MD, M Swank, MD, M Reed, MD, P McAfee, MD.

- 15<sup>th</sup> Annual Meeting, Section on Disorders of the Spine and Peripheral Nerves, of the American Association of Neurological Surgeons and Congress of Neurological Surgeons, Lake Buena Vista, Florida, FL, 1999.

“Titanium Mesh in Cervical Spine Reconstruction: the North American Experience.” G. Lowery, M.D., Ph.D., M. Swank, M.D., R. McDonough, B.S.

- 64<sup>th</sup> Annual AAOS, San Francisco, CA, February 1997
- Eurospine ‘96, Zurich, Switzerland, October 1996 (Lowery)
- 11<sup>th</sup> Annual Mtg. of Joint Section on Disorders of Spine and Peripheral Nerves, Ft. Lauderdale, FL, February 1995 (Lowery)
- CSRS-European Section Fourth Common Meeting, June, 1994, Roma, Italy (McDonough)

“Polyethylene Failure in Metal-Backed Unicompartamental Tibial Components.” M. Swank, M.D., G. Engh, M.D., N. Parks, M.S.

- 62<sup>nd</sup> Annual AAOS, Orlando, FL, February 1995

“Anterior Cervical Osteosynthesis with the Divergent ORION Fixation System: Early Results.” G. Lowery, M.D., Ph.D., M. Swank, M.D., R. McDonough, B.S.

- 90<sup>th</sup> Annual Scientific Assembly of Southern Medical Association, Baltimore, MD, November 1996 (McDonough)
- 10<sup>th</sup> Annual North American Spine Society, Washington, D.C., October 1995 (Lowery)
- CSRS-European Section Fourth Common Meeting, June, 1994, Roma, Italy (McDonough)

“Cervical Arthrodesis and Instrumentation: Multilevel Interbody Fusion versus Strut Graft Reconstruction.” M. Swank, M.D., G. Lowery, M.D., Ph.D., R. McDonough, B.S.

- Southern Medical Association, Orlando, FL, November 1994
- NASS/JSRS “Spine Across the Sea”. April, 1994 Maui, Hawaii

“Posterior Cervical Arthrodesis with Lateral Mass Plating for Multilevel Cervical Disease.”

Swank, M.D., B. Dials, M.S., C. Sutterlin III, M.D.

- Southern Medical Association, Orlando, FL, November 1994
- Third International Congress on Spinal Surgery, Antalya, Turkey, October 1994

“Anterior Cervical Interbody Fusion: Locked versus Non-Locked Plating Systems.” M. Swank, M.D., G. Lowery, M.D., Ph.D., R. McDonough, B.S.

- Southern Medical Association, Orlando, FL, November 1994
- NASS/JSRS “Spine Across the Sea”, April, 1994, Maui, Hawaii

“Posterior Cervical Arthrodesis and Stabilization with a Lateral Mass Plate, Clinical and CT Evaluation of Lateral Mass, Screw Placement and Associated Complications.” A. Graham, M.D., M. Swank, M.D., C. Sutterlin III, M.D., R. Kinard, M.D., G. Lowery, M.D., Ph.D.

- Southern Medical Association, Orlando, FL, November 1994
- Third International Congress on Spinal Surgery, Antalya, Turkey, October 1994

“Medial Compartment Unicompartmental Knee Arthroplasty: A Clinical and Radiographic Outcome Study with Cost Analysis.” M. Swank, M.D., G. Engh, M.D., N. Parks, M.S.

- 61<sup>st</sup> Annual AAOS, New Orleans, LA. February, 1994

“Structural Autogenous Bone Grafting of Tibial Defects in Primary Total Knee Arthroplasty.” M. Swank, M.D., G. Engh, M.D., N. Parks, M.S.

- 61<sup>st</sup> Annual AAOS, New Orleans, LA. February, 1994

“Adults with Spina Bifida: A Review of 71 Patients.” L. Dias, M.D., A. Hernandez, M.D., Swank, M.D.

- Pediatric Orthopaedic Society of North America, Toronto, Canada, May, 1987

## **Papers**

Paper B-3-5 Computer-assisted total knee surgery decreases the early postoperative pain compared to traditional surgery: a single surgeon’ series of 411 knee replacements. M. Swank.

Paper A7-4 Navigation in Hip Resurfacing: Report of initial results. M. Swank, L. Korbee.

Dermabond efficacy in computer-assisted total joint replacement wounds, M. Swank, A. Miller, L. Korbee.

Accuracy of component placement using computer-assisted surgery and the TAL. M. Swank.

Short-term results of custom trials of acetabular component for massive periacetabular bone lesions in revision hip arthroplasty. M. Wind, J. Sorger, M. Swank

Computer-assisted orthopaedic surgery with ligament balance technique lowers the manipulation rate in total knee replacement. M. Swank, L. Korbee.

First Annual North American Comprehensive Course on total hip resurfacing arthroplasty in Annapolis, MD, Nov. 9-10, 2007. Minimally invasive surgery in hip resurfacing. M. Swank.

Accuracy of component position using image-free navigation. M. Swank.

Contemporary techniques in revision hip and knee arthroplasty, Chicago, IL, July 28-29, 2006.

What about the CASS hip: Does it help me avoid complications?



Case presentations: what we use and how we do it in total hip arthroplasty.

Minimally invasive total knee arthroplasty – surgical instrumentation.

Moderator for computer-assisted total knee arthroplasty section and a panel member for Let's do a primary total knee, AAOS, 2007

Ask the Experts Panel, case presentations of total joints.

May 10-13, 2007, The Greenbriar, advances in total joint replacement, indications, perils and detailed surgical techniques.

Mobile bearing UKA, M. Swank  
Computer-assisted gap balancing, M. Swank  
Mobile bearing revisions, M. Swank

Panel discussion for unicompartmental replacement and gap balancing.

Instrumentation and surgical technique considerations in contemporary total knee arthroplasty, March 14, 2008 at the orthopaedic learning center.

Demonstration: Optimized sub vastus in total knee arthroplasty.

Talk: Manual approaches to gap Balancing.

Moderator: Balanced resection total knee arthroplasty.

Panel Discussion participant and a proctor for hands-on lab.

Computer-assisted surgery – surgical professional education program, C I system of T H R, Jan 6, 2007, Westin Hotel, Cincinnati.

Guest faculty presentation, computer-assisted surgery in total knee arthroplasty and a question and answer session.

Transforming orthopaedics –improving outcome through technology. Canyon Resorts, Utah, March 14-18, 2007.

Computer-assisted surgery in total hip arthroplasty.

ART-TGS UNI cadaver course, Feb 16, 2007. Mt. Vernon, Virginia.

3<sup>RD</sup> Annual CAOS UK, FEB. 7-9, 2008. Glasgow, UK.

Total knee replacement Part 2 as a moderator.

Poster R111: Imageless navigation in hip resurfacing, the impact of surgical volume on computer-assisted placement. Romanoski/Swank.

Talk: Cost effectiveness of computer-assisted surgery in the Medicare population.

Talk: computer-assisted surgery in crisis: Why has the innovation stopped.

DePuy Central Surgeon Panel Meeting, Jan 27, 2007, Dallas, Texas. Panel member.

DePuy ASR Training, Feb. 13, 2007, 7-10:30 a.m. San Diego, CA. Participant.

7<sup>th</sup> CAOS International, June 20-23, Heidelberg, Germany.

Special Poster: Navigation in hip resurfacing – Report of initial results. Swank, Korbee.

Poster: Comparison of mechanical axis measurements: intraarticular navigation vs. postop standing films. Smail, Swank, Korbee.

Poster: Use of transverse acetabular ligament for acetabular cup complement in computer-assisted total hip replacement. Swank, Alkire, Korbee, Grote.

17<sup>th</sup> ISTA 2004, Sept 23-25, Rome, Italy.

Poster 34: computer-assisted surgery total hip replacement planning and outcome. Swank.

3<sup>rd</sup> CAOS international, June 18-21, 2003, Marbella, Spain.

CT based image guided vs. conventional intermedullary instrumentation in total knee arthroplasty. Swank.

24<sup>th</sup> Mid America Orthopaedic Society, April 19-23, 2006. San Antonio, Texas.

Unicondylar arthroplasty trends and outcomes.

Talk on navigation and unicompartmental replacement.

Poster 24, blood conservation in primary total knee arthroplasty. M. Swank, V. Williams.

6<sup>th</sup> CAOS International, Montreal, Canada, June 21-24.

Paper\_ Low incidence of postoperative complications due to reference array pin placement and image-free computer-assisted surgery total knee replacement. M. Swank.

Posterior computer-assisted orthopaedic surgery with ligament balancing technique using an internal tensiometer lowers manipulation rate in total knee arthroplasty. M. Swank, L. Korbee. (this won the Best Poster award at this meeting).

American Academy of Orthopaedic Surgeon's, 2008, 75<sup>th</sup> Annual Meeting, March 5-9, 2008.

Instructional course lecture A263, computer-assisted orthopaedic reconstruction, and minimally invasive computer-assisted total knee arthroplasty.

Paper 097, patient and surgical factors associated with infection after total knee arthroplasty. W. Barrett, D. Goetz, C. Boese, M. Swank, J. Mason, J. Murphy, J. Gant.

Medical education multimedia ME CO7, imageless navigation in hip resurfacing arthroplasty, video surgical technique. M. Swank. A. Hallock.

April 26, 2007. The patient of the new millennium, local moderator and host.

4<sup>th</sup> annual International Orthopaedic congress modern trends in orthopaedic and traumatology, March 27-28, Znojmo, Czech Republic.

Talk: Pinless array fixation in determining leg length in imageless navigation. Swank, Perumal

Imageless Navigation in hip resurfacing, avoiding component malposition during the surgeon learning curve. M. Swank.

Comparison of mechanical axis measurements: intraoperative navigation vs. postoperative standing films. Smail, Swank, Alkire, Korbee.

Ligament balancing in computer-assisted total knee arthroplasty: Improved clinical results with a spring-loaded tensiometer. Swank, Romanoski, Korbee, Bignozzi.

Ion Concentrations From Hip Implants- Journal of Surgical Orthopaedic Advances 15(2): 113-114 (2006)

### **Research Grants**

Characteristics of Titanium Surgical Mesh: A Study of Bio Ingrowth Following Repair of Corpectomy Defects. Michael Swank, M.D. 2003, Medtronic Sofamor Danek.

The Clinical and Cost Effectiveness of Four Different Treatment Methods for Preventing Epidural Scar Formation After Unilateral Lumbar Discectomy: A Prospective Clinical and MRI Evaluation. M. Swank, M.D. Bethesda Foundations and Gliatech, Inc.

The Cost Effectiveness of a Perioperative Transfusion System in Patients Undergoing Elective Hip and Knee Replacement Surgery as an Alternative to Autologous Blood Donation. 1998, Jewish Hospital Research Council.

The Diagnostic Value of Hoffmann's Sign in Predicting Cervical Spine Pathology and Impending Cervical Myelopathy. 1997, Jewish Hospital Research Council.

The Chiropractic Treatment of MRI/CT-Proven Lumbar Disc Herniations. 1997, Jewish Hospital Research Council.

The Accuracy of Placement of Lumbar Pedicle Screws by Conventional Fluoroscopic Technique Compared to a Computer-Guided Tracking System: A Prospective Study Using CT Imaging. 1997, Bethesda Foundation.

The Cost Effectiveness and Outcome Analysis of Prospective Total Joint Replacement Program Instituted with the Cooperation of the Hospital and Joint Replacement Physicians in a Multi-Disciplinary Treatment Protocol. 1996, Jewish Hospital Research Council.

The Incidence Of Hip Fractures In Patients Admitted To Nursing Homes: The Relationship Between Date Of Admission To The Nursing Home And Onset Of Subsequent Fracture. 2000, The Jewish Hospital Research Council.

### **Local Activities / Talks**

Beacon Orthopaedics & Sports Medicine “Walk30 Community Walk” powered by Fleet Feet, 2023

Host for the Live Surgical Teleconference Program Entitled “Innovations in Cage Technique, Restoration of Lordosis and Endplate Preservation”. January 6, 2001.

Computer Assisted Image Guided Systems For Spinal Surgery, Live Surgical Presentation at Bethesda North Hospital. September 24-25, 1999.

Participated as guest on local cable television show, Doctors’ Health Tips on “A Multi-disciplinary Approach to Painful Spinal Disorders”, February 1995.

Presentation entitled, “The Orthopaedic Fellowship Experience” at the Northwestern University Medical School Department of Orthopaedic Surgery 17<sup>th</sup> Annual Resident Alumni Thesis Day, May 5, 1995

Presentation entitled, “A Clinical Perspective of Practice Parameters” to the Cincinnati Medical Group Management Association Seminar, May 18, 1995

Article on “Scoliosis” for the Health Matters column in the Cincinnati Post.

### **Other Works**

The Chiropractic Treatment Of MRI/CT Proven Lumbar Disc Herniations. M. Swank, M.D., J. Grote, P.A., D. Rottinghaus, D.C.

The Diagnostic Value Of Hoffmann’s Sign In Predicting Cervical Spine Pathology And Impending Cervical Myelopathy. M. Swank, M.D.

A Two-Year, Multi-Center, Prospective, Randomized Study of Pedicle Screw Fixation. C.E. Sutterlin, III, M.D., S.P. Barrett, M.D., R.J. Wisniewski, M.D., C.A. Dickman, M.D., F.T. Wetzell, M.D., C.B. Michelson, M.D., G.G. Field, M.D., P.C. McAfee, M.D., M.L. Swank, M.D., M. Reed, M.D.

Autogenous Bone Grafting of Uncontained Tibial Defects in Primary Total Knee Arthroplasty: A Four to Six Year Follow-Up Report. M. Swank, M.D., N. Parks, M.D., G. Engh, M.D.

Outcome Analysis in Hip Replacement Surgery. M. Swank, M.D., G. Macalino, M.P.H., C. Engh, M.D.

Medial Compartment Unicompartmental Knee Arthroplasty: A Clinical and Radiographic Outcome Study with Cost Analysis. M. Swank, M.D., N. Parks, M.S., G. Engh, M.D.

The Economic Impact of Total Hip Arthroplasty in Working Age Patients. M. Swank, M.D., C. Engh, M.D., G. Macalino, M.P.H., J. Leonard, A.S.A., E.A.

Osteolysis Causing Late Loosening of a Cementless Acetabular Component in Total Hip Arthroplasty: A Case Report. M. Swank, M.D., C. Engh, M.D.

### **Committee Memberships**

Chairperson, Computer Assisted Orthopaedic Surgery Fellowship Training Program, International Society of Computer Assisted Orthopaedic Surgery. 2003-2004.

Program Committee Member, 3<sup>rd</sup> Annual Meeting, International Society of Computer Assisted Orthopaedic Surgery, 2003

American Academy of Orthopaedic Surgery Special Interest Group on Medical Robotics and Computer Assisted Surgery.

Health Alliance of Greater Cincinnati, Orthopaedic Service Line Member, 1999

Orthopaedic Consultant to Alliance Physician and Surgeons, 1997

Jewish Hospital Emergency Department Triage Committee, 1997

Health Alliance of Greater Cincinnati TVC Joint Replacement Program Task Force, 1998

Health Alliance of Greater Cincinnati, Orthopaedic Service Line Strategic Planning Committee, 1997

Jewish Hospital Executive Committee, 1996-1999

Health Improvement Collaborative of Greater Cincinnati, Low Back Pain Task Force, 1996-1998

Academy of Medicine of Cincinnati, Low Back Pain Practice Guidelines Subcommittee, 1995.