

Curriculum Vitae

MICHAEL LAWSON SWANK

Birth Date: November 3, 1961
Birth Place: Sycamore, Illinois
Home: Cincinnati, Ohio

EMPLOYMENT

Freiberg Orthopaedic and Sports Medicine, 1994 – present, currently Chairman of the Board
Freiberg Spine Institute, 1998 – present, Medical Director
Cincinnati Orthopaedic Research Institute, 2000 – present, President

Associated with:

| | | |
|---------------------------|-------------------------------|-------------------------|
| James B. Willis, M.D. | R. Scott Jolson, M.D. | Glenn A. Reinhart, M.D. |
| David J. Greenfield, M.D. | Michael L. Swank, M.D. | Craig B. Willis, M.D. |
| Andrew M. Roth, M.D. | Sambhu N. Choudhury, M.D. | Rajbir S. Minhas, M.D. |
| Lee D. Shaftel, M.D. | Francis X. Florez, M.D. | John B. Jacquemin, M.D. |
| Lawrence A. Zeff, M.D. | Raul Florez, M.D. | Pamela J. Petrocy, M.D. |
| | | Sameh Arebi, MD |

PRACTICE OFFICE LOCATIONS

Business Office

One Kenwood Place
9825 Kenwood Road, Suite 200
Cincinnati, OH 45242-6232

Mt. Airy Office

Mercy Franciscan Professional Center
2450 Kipling, Suite G-08
Cincinnati, OH 45239

Kenwood Office

Jewish Hospital Medical Office
8250 Kenwood Crossing Way Suite 101
Cincinnati, OH 45236

Western Hills Office

Mercy Franciscan Professional Center
2841 Boudinot, Suite 202
Cincinnati, OH 45238

Phone: (513) 221-5500 ■ FAX 221-1962
www.freibergortho.com www.cincyresearch.org
E-mail: **mswank2789@aol.com**

STATE LICENSURE

Ohio, Kentucky, Illinois, Florida

CURRENT ACADEMIC APPOINTMENTS

Chairman of the Board: Freiberg Orthopaedics & Sports Medicine
President and Medical Director: Cincinnati Orthopaedic Research Institute
Medical Director: The Joint Replacement Center at The Jewish Hospital
Medical Director: The Freiberg Spine Institute
Volunteer Assistant, Clinical Professor: The Department of Orthopaedics: College of
Medicine, University of Cincinnati
Volunteer Assistant, Clinical Professor: The Department of Occupational Medicine:
College of Medicine, University of Cincinnati

EDUCATION AND TRAINING

Fellowships: Spinal Reconstructive Surgery
1994-1993 Chester Sutterlin III, M.D.
Florida Fellowship in Reconstructive Spinal Surgery
Gainesville, FL

1993-1992 Adult Reconstructive Surgery
Charles Engh, M.D.
Anderson Orthopaedic Institute
Arlington, VA

Residency: Northwestern University
1992-1987 Department of Orthopedics
Michael Schafer, M.D.
Chicago, IL

Medical School: Northwestern University
1987-1983 Chicago, IL

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

High School: Honors College Preparatory
1979-1975 Saint Xavier
Cincinnati, OH

BOARD CERTIFICATION

Board Certified, American Board of Orthopaedic Surgery, June 1996
Re-certified - July 2005 ~ June 2016

HOSPITAL PRIVILEGES

Active Staff: The Jewish Hospital, Cincinnati, OH

PROFESSIONAL SOCIETY MEMBERSHIPS

Academy of Medicine of Cincinnati
American Academy of Orthopaedic Surgeons
American Medical Association
Cervical Spine Research Society
Clinical Orthopaedic Society
International Society for Computer Assisted Orthopaedic Surgery
International Society for Technology in Arthroplasty
Mid-American Orthopaedic Association
North American Spine Society
Ohio State Medical Association
Ohio Orthopaedic Society
Scoliosis Research Society

PUBLICATIONS

ARTICLES

1. Computer-Assisted Surgery in Total Knee Arthroplasty: Experience with the Vector Vision and Ci Navigation System for Mobile Bearing Total Knee Arthroplasty. Techniques in Knee Surgery. 7(3): 144-152, Sept 2008 T Kelley, MD; **ML Swank, MD**
2. Getting it Right with Navigation: Imageless Navigation in Hip Resurfacing: Avoiding Component Malposition During the Surgeon Learning Curve J. Bone Joint Surgery Am., 90:65-70, Aug 2008 J R Romanowski, MD; **ML Swank, MD**
3. Ligament Balancing in Computer Assisted Total Knee Arthroplasty: Improved Clinical Results with a Spring Loaded Tensioning Device. Journal of Engineering in Medicine, 221(7): 755-762 Oct 2007 **ML Swank, MD**; JR Romanowski, MD; Simone Bignozzi, MD.
4. Computer Assisted Surgery in Total Knee Arthroplasty. Techniques in Knee Surgery, 5(4): 228-237, Dec 2006 **ML Swank, MD**; L Korbee, BS
5. Computer Assisted Surgery—Orthopaedic Navigation in Total Joint Replacement. US Musculoskeletal Disease 1: 85-87, June 2006 **ML Swank, MD**
6. Ion Concentrations from Hip Implants. Journal Of Surgical Orthopaedic Adv. 15(2): 113-114 June 2006 A Sargeant, MD; T Goswami, MD; **ML Swank, MD**
7. Orthopaedic Personnel Roles in the OR Computer Assisted Total Knee Arthroplasty AORN 82(4) 631-643 Oct 2005 **ML Swank, MD**; IE Lehner, MD

8. Computer-Assisted Surgery in Total Knee Arthroplasty; Recent Advances: Surgical Technology International, 12: 209-213, Jan 2004 **ML Swank, MD**
9. Health Related Quality of Life Using the SF36 in Patients with Bipolar Disorder Compared to Patients with Chronic Back Pain and the General Population. Journal of Affective Disorders, 5(1-3): 235-239, Jan 2000 LM Arnold, MD; KA Witzman, MD; **ML Swank, MD**; P Keck Jr., MD; SL McElroy, MD
10. Rigid Internal Fixation With Lateral Mass Plates in Multilevel Anterior and Posterior Reconstruction of the Cervical Spine. Spine, 22(3): 224-282, Feb 1997 **ML Swank, MD**; C Sutterlin III, MD; C Bossons, MD; B Dials, MD.
11. Anterior Cervical Allograft Arthrodesis and Instrumentation: Multilevel Interbody Grafting and Strut Graft Reconstruction. European Spine Journal, 6(2): 138-143, Jan 1997 **ML Swank, MD**; G Lowery, MD, PhD; R McDonough, BS; A Allen, MA
12. Posterior Cervical Arthrodesis and Stabilization with a Lateral Mass Plate, Clinical and CT Evaluation of Lateral Mass, Screw Placement and Associated Complications. Spine, 21(3): 323-8; Discussion 329, Feb 1996. A Graham, MD; **ML Swank, MD**; R Kinard, MD; G Lowery, MD, PhD; B Dials, MD
13. Surgical Revision for Failed Anterior Cervical Fusions: Articular Pillar Plating or Anterior Revision? Spine, 20(22): 2436-2441, Nov 1995. G Lowery, MD, PhD; **ML Swank, MD**; R McDonough, BS.
14. Walking Ability in Spina Bifida Patients: A Model for Predicting Future Ambulatory Status Based on Sitting Balance and Motor Level. Journal of Pediatric Orthopaedics. 14(6) 715-718, November 1994 **ML Swank, MD**; L Dias, MD
15. Unicompartamental Arthroplasty: An Eight Year Follow up Study With Survivorship Analysis. Clinical Orthopaedic Rel. Res. (286): 130-42, Jan 1993. **ML Swank, MD**; D Stulberg, MD; J Jiganti, MD; S Machaira, MD
16. Myelomeningocele: A Review of the Orthopaedic Aspects of 206 Patients Treated from Birth with No Selection Criteria. Dev. Med. and Child Neur. 34: 1047-1052; Dec 1992 **ML Swank, MD**; L Dias, MD

CHAPTERS IN TEXT BOOKS

1. Transition Zone Failure In Patients Undergoing Instrumented Lumbar Fusions From L1 or L2 To The Sacrum, Chapter XX, **ML Swank, MD**; A Miller, MD; L Korbee, BS “Innovations In Spinal Reconstruction” Lewandrowski KU, editor. Marcel Dekker, New York, NY Feb 2007.
2. Multi-level Cervical Decompression and Reconstruction, Ch. 49, “Advances in Spinal Fusion” **ML Swank, MD** Lewandrowski KU, editor. Marcel Dekker, New York, NY 2003 Nov 2003

ABSTRACTS

1. 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, BS Computer Assisted Orthopaedic Surgery, 6th Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2006.
2. Computer Assisted Orthopaedic Surgery With Ligament Balancing Technique Using An Internal Tensionometer Lowers Manipulation Rate In Total Knee Replacement. **ML Swank, MD**; L Korbee, BS Computer Assisted Orthopaedic Surgery, 6th Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2006.
3. 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, 5th Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2005.
4. CAS Enabled Minimally Invasive TKA: Better Clinical Results and Better Mechanical Alignment than Mechanical Instruments. **ML Swank, MD** Computer Assisted Orthopaedic Surgery, 5th Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2005.
5. Computer Assisted Total Hip Replacement--Planning and Outcome **ML Swank, MD**, Computer Assisted Orthopaedic Surgery, 4th Annual Meeting of CAOS, International Meeting. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2004.
6. Clinical Validation of a Novel spring Loaded Tensioning Device and Computer Assisted Navigation. S Bignozzi, MD; JL Briard, MD; M Marcacci, MD; **ML Swank, MD** Computer Assisted Orthopaedic Surgery, 4th Annual Meeting of CAOS, International Proceedings. Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2004.
7. CT Based Image Guided Surgery vs. Conventional Intramedullary Instrumentation in Total Knee Arthroplasty. **ML Swank, MD** Computer Assisted Orthopaedic Surgery Langlotz, Davies, Bauer, Editors, Steinkopf Darmstadt, June 2003.
8. Titanium Mesh in Cervical Spine Reconstruction: The North American Experience. G Lowery, MD, PhD; **ML Swank, MD**; R McDonough, BS Orthopaedic Transactions: 21:3 1997
9. Salvage Reconstruction of Failed Anterior Cervical Surgeries, **ML Swank, MD**; G Lowery, MD, PhD; J Vega, PAC; R McDonough, BS; A Allen, MA Orthopaedic Transactions: 19:3. 1995
10. Polyethylene Failure in Metal Backed Unicompartmental Tibial Components, **ML**

- Swank, MD**; N Park, MS; G Engh, MD Orthopaedic Transactions: 19:3. 1995
11. Hip Arthroplasty in the Young Patient: Social and Economic Impact. **ML Swank, MD**;
G Macalino, MPH Orthopaedic Transactions: 18:3. 1994
12. Medial Compartment Unicompartmental Knee Arthroplasty: A Clinical and Radiographic Outcome Study with Cost Analysis. **ML Swank, MD**; G Engh, MD; N Parks, MS Orthopaedic Transactions: 18:3. 1994
13. Structural Autogenous Bone Grafting of Tibial Defects in Primary Total Knee Arthroplasty. **ML Swank, MD**; G Engh, MD; N Parks, MS Orthopaedic Transactions: 18:3. 1994
14. The Natural History of Unicompartmental Arthroplasty: An Eight-Year Follow-Up Study with Survivorship Analysis. **ML Swank, MD**; S D Stulberg, MD; J Jiganti, MD; S Machairas, MD Orthopaedic Transactions: 16:3. 1992
15. The Natural History of the Spina Bifida Child: the First Ten Years. **ML Swank, MD**; B Dias, MD Orthopaedic Transactions: 13:3. 1989

POSTERS

1. North American Spine Society 2003 Annual Meeting, Oct 22-26, 2003.
–“Titanium Surgical Mesh and Local Bone Graft Eliminates the Need for Iliac Crest Autograft or Allograft in Anterior Cervical Reconstructions”
2. 2nd Annual Meeting CAOS International, Santa Fe, NM, June 2002.
–“Early Experience With A CT Based Image Guided System for Total Knee Arthroplasty.” **ML Swank, MD**
3. 69th Annual Meeting AAOS, Dallas TX, Feb, 2002
–“Cervical Pedicle Screw Fixation in Multilevel Cervical reconstructions: An Analysis of the Safety and Efficacy of 100 Consecutive Pedicle Screws Placed AtC7 or T1.” **ML Swank, MD**
4. Twenty-Eight Annual Meeting of Cervical Spine Research Society, Charleston, SC, Nov 2000.
–“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.” **ML Swank, MD**
5. The American Association of Neurological Surgeons 2000 Annual Meeting, San Francisco, CA April. 2000
–“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” **ML Swank, MD**

6. 15th 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, Feb 1999.
 - “Prognostic Value of Hoffmann’s Sign as an Indicator of Cervical Spinal Stenosis in Patients with Chronic Low Back Pain.” **ML Swank, MD**; C Willison, MD; C Ritter.
7. SSAF second annual advances in Techniques in Spinal Surgery, Dec 1994, New York, N.Y.
 - “Anterior Cervical Osteosynthesis with the Divergent ORION Fixation System: Early Results.” G Lowery, MD, PhD; **ML Swank, MD**; R McDonough, BS
8. Southern Medical Association, Orlando, FL, Nov 1994
 - “Titanium Mesh in Cervical Spine Reconstructions: The North American Experience.” G Lowery, MD, PhD; **ML Swank, MD**; R McDonough, BS
 - “Anterior Cervical Interbody Fusion: Locked versus Non-Locked Plating Systems.” **ML Swank, MD**; G Lowery, MD, PhD; R McDonough, BS.
 - “Cervical Arthrodesis and Instrumentation: Multilevel Interbody Fusion versus Strut Graft Reconstruction.” **ML Swank, MD**; G Lowery, MD, PhD; R McDonough, BS
9. NASS/JSRS “Spine Across the Sea”, April, 1994, Maui, Hawaii
 - “Cervical Arthrodesis and Instrumentation: Multilevel Interbody Fusion versus Strut Graft Reconstruction.” **ML Swank, MD**; G Lowery, MD, PhD; R McDonough, BS
 - “Anterior Cervical Interbody Fusion: Locked versus Non-Locked Plating Systems.” **ML Swank, MD**; G. Lowery, MD, PhD; R McDonough, BS
 - “Anterior Cervical Osteosynthesis with the Divergent ORION Fixation System: Early Results.” G Lowery, MD PhD; **ML Swank, MD**; R McDonough, BS

INSTITUTIONAL SERVICE

Program Committee Member, 2003-2008: Annual Meeting of International Society of Computer Assisted Orthopaedic Surgery

Orthopaedic Consultant 1997-2008: Alliance Physician and Surgeons.

Orthopaedic Service Line Member, 1999-2006: Health Alliance of Greater Cincinnati,

Chairperson, 2003-Present: Computer Assisted Orthopaedic Surgery Fellowship Training Program

International Society of Computer Assisted Orthopaedic Surgery(cannot locate dates)

Triage Committee, 1997-2003: Jewish Hospital Emergency Department.

Executive Committee, 1996-1999: Jewish Hospital.

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

Low Back Pain Task Force 1996-1998: Health Improvement Collaborative of Greater Cincinnati
Orthopaedic Service Line Strategic Planning Committee, 1997: Health Alliance of Greater Cincinnati

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

Special Interest Group on Medical Robotics and Computer Assisted Surgery: American Academy of Orthopaedic Surgery (cannot locate dates)

Clinical Orthopaedic and Research Journal Arthroplasty (cannot locate dates)

(NO TITLE)

- 2008** 21st Annual Congress of ISTA Oct 1-4 2008 Seoul, Korea
–“Computer-Assisted Surgery in Total Knee Arthroplasty: Experience with the VECTORVISION® AND CITM Navigation System For Mobile Bearing TK”
–“Cost Effectiveness of Computer Navigation in Total Joint Arthroplasty in the Medicare Population”

8th Annual CAOS-International Meeting June 4-7 2008 Hong Kong, China
–“Pinless array fixation in determining leg length in imageless navigation”
ML Swank, MD; V Perumal, MD

AAOS/AICKH Research Symposium 2008 May 15-17 2008 Providence, RI
–“Role of Navigation in Total Hip Arthroplasty” **ML Swank, MD**

7th Annual Meeting: American Academy of Orthopaedic Surgeon’s, 2008,
March 5-9, 2008 San Francisco, CA
–“Patient and Surgical Factors Associated with Infection After Total Knee Arthroplasty” **ML Swank, MD**
–“Imageless navigation in hip resurfacing arthroplasty, video surgical technique”
ML Swank, MD; A Hallock.

3rd Annual CAOS UK Feb 7-9, 2008 Glasgow, UK
–“Imageless Navigation in Minimally Invasive Hip Replacement” **ML Swank, MD**
–“Cost Effectiveness of Computer Navigation in Total Joint Arthroplasty in the Medicare Population” **ML Swank, MD**

- 2007** ISTA 2007 Oct 4-6 2007 Paris, France
–“Comparison of Mechanical Axis Measurements: Intra-Operative Navigation Versus Postoperative Standing Films Jennifer Smal; **ML Swank, MD**
- 7th Annual CAOS-International Meeting June 23-24 2007 Heidelberg, Germany
–“Low Incidence of Post Operative Complications Due to Reference Array Pin Placement in Image Free Computer Assisted Total Knee Replacement”
ML Swank, MD
- Complex Total Knee Procedures Seminar March 7-10, 2007 St. John, US Virgin, Islands
–“CAS ligament balance in RP knees using an internal tensiometer” **ML Swank, M.D.**
- Anderson Orthopaedic Research Institute Hip & Knee Symposium, Nov 9-10 2007
–“Imageless Navigation in hip resurfacing: “Does it decrease complications during the surgeon learning curve?” **ML Swank, MD**
- 2006** AAHKS 16th Annual Meeting Nov 3-5, 2006 Dallas, TX
–“Low Incidence of Post Operative Complications Due to Reference Array Pin Placement in Image Free Computer Assisted Total Knee Replacement” **ML Swank, MD**
–“Computer Assisted Orthopaedic Surgery With Ligament Balancing Technique Using Internal Tensionometer Lowers Manipulation Rate In Total Knee Replacement **ML Swank, MD**
- 6th Annual CAOS-International Meeting June 21-24 2006 Montreal, Canada
–“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 With Ligament Balancing Technique Using An Internal Tensionometer Lowers Manipulation Rate In Total Knee Replacement.” **ML Swank, MD; L Korbee, BS**
- 73rd AAOS Annual Meeting Mar 8-12 2006 New Orleans, LA
–“Computer Assisted Total Knee Surgery Decreases Early Postoperative Pain” **ML Swank, MD**
–“Imageless Navigation in Minimally Invasive Total Hip Replacement with a Posterior Approach” **ML Swank, MD**
–“Clinical Validation of A Novel Spring Loaded Tensioning Device and Computer Assisted Navigation” **ML Swank, MD**
- 2005** ISTA Sept 24-Oct 2 2005 Kyoto, Japan
–“Clinical Validation of a Spring-Loaded Tension Device and Computer-Assisted

Navigation **ML Swank, MD.**

- 5th Annual CAOS-International Meeting June 19-2, 2005 Helsinki, Finland
–“Imageless Navigation in Minimally Invasive Total Hip Replacement with a Posterior approach: Excellent Clinical Results and Radiographic Alignment.”
ML Swank, MD
–“CAS Enabled Minimally Invasive TKA: Better Clinical Results and Better Mechanical Alignment than Mechanical Instruments.” **ML Swank, MD**

Updates in Hip Surgery June 5 2005 Seoul, Korea,
–“Intra-operative Navigation in THA”

- 72nd AAOS Annual Meeting Feb 23-27 2005 Washington, DC
–“ CT based Computer Assisted Navigation in Minimally Invasive Total Hip Arthroplasty
ML Swank, MD

- 2004** 4th Annual CAOS-International Meeting June 16-19 2004 Chicago, IL
–“Computer Assisted Total Hip Replacement--Planning and Outcome”
–“Clinical Validation of a Novel spring Loaded Tensioning Device and Computer Assisted Navigation”

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

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

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

American Academy of Orthopedics Annual Meeting, March 12, 2004 San, Francisco, CA
–“The Whys and Hows of Image Based Navigation” Instructional Course
–“Image Based vs. Image Free Navigation in THR and TKR Surgery: Pros and Cons”

Orthopaedic Learning Center (OLC), Feb 2, 2004 Rosemont, IL
–“The Promises and Challenges of Computer-Assisted Surgery: Minimally Invasive Hip Arthroplasty Techniques”

- 2003** CSRS Annual Meeting Dec 11, 2003 Scottsdale, AZ
–“Titanium Surgical Mesh and Local Bone Graft Eliminates need for Iliac Crest Autograft or Allograft in Anterior Cervical Reconstructions”

- Medtronic Sofamor Danek, Nov 4, 2003, Detroit, MI
–“MAST Instrumentation Satellite Lab”
- MIS Meets CAOS Fall symposium Oct 16-18, 2003, Pittsburgh, PA
–“CT Based Navigation for Knees and MIS Hips”
- Ci Asia-Pacific Launch Oct 9-12 2003, Adelaide, Australia
–“CAS-TKR Navigation”
- ISTA 2003, Sept 24-27, San Francisco, CA
–“CT Based Image Guided Surgery vs. Conventional Intramedullary Instrumentation of Total Knee Arthroplasty: Alignment Study and Clinical Outcome Study” and
–“CT Based vs. CT Free total Knee Arthroplasty: Early Experience”
- Engh Society Reunion Sept 4-5, 2003 Alexandria, VA
–”Basics of Computer assisted Navigation for Hip and Knee Replacements”
–“CT Based Image Guided Surgery vs. Conventional Instrumentation in Total Knee Arthroplasty”
- Presbyterian Institute for Minimally Invasive Technology July 31-Aug 1, 2003
Dallas, TX
–“Minimally Invasive Hip Arthroplasty Techniques”
- 10th International Meeting of Advanced Spine Techniques (IMAST) July 10-12 2003
Rome, Italy.
–“Titanium Surgical Mesh and Local Bone Graft Eliminates the Need for Iliac Crest Autograft or Allograft in Anterior /Posterior Cervical Reconstructions.”
- 3rd Annual CAOS International Meeting June 18-21 2003 Marbella, Spain.
–“CT Based Image Guided Surgery vs. Conventional Intramedullary Instrumentation of Total Knee Arthroplasty”
- MIS Meets CAOS Symposium, May 30-June 1, 2003, Pittsburgh, PA
–“CT Based Navigation for Knees and MIS Hips”
- Grand Rounds at the University of Chicago Pritzker School of Medicine May 21, 2003
Chicago, IL
–“The Promises and Challenges of Computer-Assisted Surgery”
- 70th Annual AAOS Meeting, Feb 4-9, 2003, New Orleans, LA
–“Physical Therapy After Instrumented Lumbar fusion Surgery: One Visit versus Eight visit Protocol”
- Presbyterian Institute for Minimally Invasive Technology, Feb 20-21, 2003, Dallas, TX

- “The Promises and Challenges of Computer-Assisted Surgery”
- 2002** North American Spine Society, Oct 30-Nov 2 2002 Montreal, Canada.
–“Adjacent Segment Failure above Lumbosacral fusions Instrumented to L1 or L2.”
- Harvard Hip and Knee Course, Oct 1-6, 2002, Boston, MA
–“Current Use of Intraoperative Navigation”
- Scoliosis Research Society Sept 19-22 2002 Seattle, WA.
–“Adjacent Segment Failure above Lumbosacral fusions Instrumented to L1 or L2.”
- The Engh Society, Sept 14-15, 2002, Alexandria, VA.
–“Image Guided Total Joint Arthroplasty”
- CAOS, Santa Fe, NM June 19-23, 2002
–“Early Experience With a CT Based Image Guided System for Total Knee Arthroplasty”
- DePuy in Winston-Salem, NC May 6, 2002
–“Image Guided Surgery for Total Joint Replacement”
- DePuy March 6-10 2002 Whistler, British Columbia
–“Contemporary Techniques & Issues in Orthopaedics”
- Medtronic Sofamor Danek, Jan 3-5, 2002, Memphis, TN
–“Fundamental Principles and Techniques in Spinal Surgery”
- 2001** 29th Annual Meeting Cervical Spine Research Society, Monterey, CA, Dec 2001.
–“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.” **ML Swank, MD**
- 16th Annual Meeting North American Spine Society Seattle, WA. Nov 2001.
–“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.” **ML Swank, MD**
- 36th SRS Annual Meeting Sept 19-22 2001 Cleveland, OH
–“Cervical Pedicle Screw fixation in multilevel cervical reconstruction: An analysis of the safety and efficacy of 100 consecutive pedicle screws placed at C7 or T1”
ML Swank, MD
- Mid-America Orthopaedic Association 2001 Annual Meeting, April 2001 Amelia Island, FL
–“Postoperative Transfusion Requirements in Primary Hip and Knee Arthroplasty: A Prospective Assessment of a Novel Perioperative Salvage System (Orthopat™)

And Postoperative Transfusion Requirements in Primary Hip Arthroplasty: A Prospective Assessment of Autologous Blood Donation Versus a Novel Perioperative Salvage System (Orthopat™)” **ML Swank, MD**

–“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.” **ML Swank, MD**; C. Willison, MD; R. Schwetschenau, MD

2000 7th International ARGOS Symposium Jan 30-31 2000 Paris, France.

–“Lumbar Fusion is Inadequate For The Treatment of Recurrent Lumbar Disk Herniation: New Alternatives Need To Be Found”

PRIOR YEARS~LECTURES/PRESENTATIONS/SITE VISITS:

Third Annual North American Program on Computer-Assisted Orthopaedic Surgery, Pittsburgh, PA, June 1999.

–“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.” **ML Swank, MD**

64th Annual AAOS, San Francisco, CA, Feb 1997.

12th Annual Meeting Cervical Spine Research Society - European Section, Nice, France June 1996

10th Annual North American Spine Society, Washington, D.C., Oct 1995

Third Annual Symposium and Call for Papers: Critical Decisions in Spinal Surgery, New York, NY, Dec 1994

2nd Annual Cervical Spine Research Society, Baltimore, MD, Nov 1994

–“Anterior Cervical Allograft Arthrodesis and Instrumentation: Multilevel Interbody Grafting and Strut Graft Reconstruction.” G. Lowery, M.D., Ph.D., **ML Swank, MD**; R McDonough, BS; A Allen, MS, MA.

10th Annual North American Spine Society, Washington, D.C., Oct 1995

11th Annual Meeting Joint Section on Disorders of the Spine and Peripheral Nerves, Ft. Lauderdale, FL, Feb 1995

–“Salvage Reconstruction for Failed Anterior Cervical Fusion: Articular Pillar Plating or Anterior Revision?” **ML Swank, MD**; G Lowery, MD, Ph.D.; J Vega, PAC; R McDonough, BS; A Allen, MS, MA.

–“Anterior Cervical Interbody Fusion: Locked versus Non-Locked Plating Systems.” G Lowery, MD, PhD; **ML Swank, MD**; R McDonough, BS; A Allen, MS, MA.

62nd Annual AAOS, Orlando, FL, Feb 1995

Cervical Spine Research Society, 22nd Annual Meeting, Baltimore, MD, Dec 1994;

–“Salvage Reconstruction of Failed Anterior Cervical Surgeries by Posterior Procedures.” **ML Swank, MD**; G Lowery, MD, PhD; J Vega, PAC; R McDonough, BS; A. Allen, MS, MA.

- 61st Annual AAOS, New Orleans, LA Feb 1994
–“Hip Arthroplasty in the Young Patient: Social and Economic Impact.” **ML Swank, MD**; G Macalino, MPH.
- 59th Annual AAOS, Washington, D.C., Feb 1992
7th Open Scientific Meeting of the Knee Society, Washington, D.C., Feb 1992
–“The Natural History of Unicompartamental Arthroplasty: An Eight-Year Follow-Up Study with Survivorship Analysis.” **ML Swank, MD**; SD Stulberg, MD; J Jiganti, MD, S Machairas, MD
- 56th Annual AAOS Meeting Las Vegas, NV. Feb 1989
American Academy for Cerebral Palsy and Developmental Medicine, Boston, MA Sept 1987
–“The Natural History of the Spina Bifida Child: The First Ten Years.” **ML Swank, MD**; L Dias, MD
- 15th 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.
–“A two year prospective, randomized Study of Pedicle Screw Fixation”
C. Sutterlin; R Wisneski; FT Wetzels; C Michelsen; C Dickman; P Barrett; E Field; ML Swank; m Reed; P McAfee
- 64th Annual AAOS, San Francisco, CA, Feb 1997
Eurospine '96, Zurich, Switzerland Oct 1996
11th Annual Mtg. of Joint Section on Disorders of Spine and Peripheral Nerves, Ft. Lauderdale, FL, Feb 1995
CSRS-European Section Fourth Common Meeting, June, 1994, Roma, Italy
–“Titanium Mesh in Cervical Spine Reconstruction: the North American Experience.” G Lowery; **ML Swank**; R McDonough
- 62nd Annual AAOS, Orlando, FL, Feb 1995
–“Polyethylene Failure in Metal-Backed Unicompartamental Tibial Components.” **ML Swank**; G Neigh; N Parks
- 90th Annual Scientific Assembly of Southern Medical Association Baltimore, MD Nov 1996
10th Annual North American Spine Society, Washington, D.C. Oct 1995
CSRS-European Section Fourth Common Meeting, June, 1994, Rome, Italy
–“Anterior Cervical Osteosynthesis with the Divergent ORION Fixation System Early Results.” G. Lowery, **ML Swank**, R. McDonough,
- Southern Medical Association, Orlando, FL Nov 1994
Third International Congress on Spinal Surgery, Antalya, Turkey, Oct 1994

–“Posterior Cervical Arthrodesis with Lateral Mass Plating for Multilevel Cervical Disease.” **ML Swank**; B Dials; C Sutterlin III

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

61st Annual AAOS, New Orleans, LA Feb 1994

–“Medial Compartment Unicompartmental Knee Arthroplasty: A Clinical and Radiographic Outcome Study with Cost Analysis.” **ML Swank**; G Engh; N Parks

–“Structural Autogenous Bone Grafting of Tibial Defects in Primary Total Knee Arthroplasty.” **ML Swank**, G. Engh, N. Parks,

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

–“Adults with Spina Bifida: A Review of 71 Patients.”L. Dias; A Hernandez; **ML Swank**

MEETINGS ATTENDED AS A PARTICIPANT:

Hip Surgery in the Young Adult, 4, in British Columbia, Canada Jan 17-21, 2008.

Scoliosis Research Society, Edinburgh, Scotland Sept 5-8, 2007.

Controversies in Knee Arthroplasty, Lenox Hill Hospital New York City, NY June 8, 2007.

ART-TGS UNI Cadaver Course, Mt. Vernon, VA Feb 16, 2007

American Academy of Orthopaedic Surgeons, San Diego, CA Feb. 14-18, 2007.

North American Hip & Knee Symposium, Copper Mountain, CO Feb. 2-4, 2006.

Cervical Spine Research Society, Palm Beach, FL Nov 30-Dec2, 2006

Osteotech Think Tank for the Spinal Market, Montreal, Canada July 29-31 2004

Equation Focus Group Meeting, July 18, 2003, Chicago, IL

MITKR Meeting, Orthopaedic Learning Center, June 3-4, 2003, Chicago, IL

Fundamental Principles and Techniques in Spinal Surgery; Medical Education and Research Institute, May 8-10, 2003, Memphis, TN

DePuy Computer Aided Surgery Evaluators Meeting, Nov 19-24, 2002 Paris, France

LOCAL/NATIONAL ACTIVITIES~SERVICE

The Patient of the New Millennium: Moderator, host. April 26, 2007.

Seminar: Complex Total Knee Procedures St John, US Virgin Islands, March 7-10, 2007.

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

Computer Assisted Surgery – Surgical Professional Education Program, C I System of T H R Westin Hotel, Cincinnati. Jan 6, 2007,

"Innovations in Cage Technique; Restoration of Lordosis and Endplate Preservation"
Host Live Surgical Teleconference Program Jan 6, 2001.

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

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

“The Orthopaedic Fellowship Experience” 17th Annual Resident Alumni Thesis Day, Northwestern University Medical School Department of Orthopaedic Surgery May 5, 1995

“A Multi-disciplinary Approach to Painful Spinal Disorders” Guest; local cable television program: Doctors’ Health Tips Feb 1995.

“Scoliosis” Health Matters The Cincinnati Post Newspaper **ML Swank, MD**

PAPERS:

1. Instrumentation and Surgical technique considerations in contemporary total knee Arthroplasty Orthopaedic Learning Center. March 14, 2008
2. First Annual North American Comprehensive Course on Total Hip Resurfacing Arthroplasty: Minimally invasive surgery in hip resurfacing. Annapolis, MD. Nov. 9-10, 2007.
3. Transforming Orthopaedics –improving outcome through technology. Canyon Resorts, Utah, March 14-18, 2007.

4. Comparison of Mechanical axis measurements: Intraarticular Navigation vs. Postoperative standing films. J. Smail; **M. Swank, M.D.**
5. Contemporary Techniques in Revision Hip and Knee Arthroplasty Chicago, IL, July 28-29, 2006.
6. Computer-assisted total knee surgery decreases the early postoperative pain compared to traditional surgery: A single surgeon's series of 411 knee replacements.
7. CAS ligament balance in RP knees using an internal tensiometer. **ML Swank, MD**
8. Navigation in Hip Resurfacing: Report of initial results. **ML Swank, MD**; L. Korbee
9. Dermabond efficacy in computer-assisted total joint replacement wounds, **ML Swank, MD**; A. Miller, L Korbee.
10. Accuracy of component placement using computer-assisted surgery and the TAL. **ML Swank, MD**
11. Short-term Results of Custom Triflange of Acetabular Component for Massive Periacetabular Bone Lesions in Revision Hip Arthroplasty. M. Wind, M.D., J. Sorger, M.D., **ML Swank, MD**; L Korbee
12. Computer-assisted Orthopaedic surgery with ligament balance technique lowers the manipulation rate in total knee replacement. **ML Swank, MD**; L Korbee.
13. Accuracy of Component Position using Image-free Navigation **ML Swank, MD**
14. CT based image guided vs. conventional intermedullary instrumentation in total knee Arthroplasty. **ML Swank, MD**
15. Unicondylar Arthroplasty trends and outcomes.
14. Low incidence of postoperative complications due to reference array pin placement and image-free computer-assisted surgery total knee replacement. **ML Swank, MD**
15. Patient and surgical factors associated with infection after total knee Arthroplasty. W. Barrett, D. Goetz, C. Boese, **ML Swank, MD**; J. Mason, J. Murphy, J. Gant.
16. Comparison of mechanical axis measurements: intraoperative navigation vs. postoperative standing films. J Smail; **ML Swank, MD**; M Alkire; L Korbee.
17. Ligament balancing in computer-assisted total knee Arthroplasty: Improved clinical results with a spring-loaded tensiometer. **ML Swank, MD**; Romanoski; Korbee; Bignozzi.

18. Imageless Navigation in hip resurfacing, avoiding component mal-positions during the surgeon learning curve. **ML Swank, MD**

POSTERS

1. ISTA 2005 – Kyoto, Sept. 24 – Oct. 2. Clinical Validation of a Spring-Loaded Tension Device and Computer-Assisted Navigation, **M. Swank, MD** Poster 11-4.
2. Poster P31, The use of transverse acetabular ligament for acetabular cup placement in computer-assisted total hip replacement. **ML Swank, MD**; M Alkire, L Korbee, J Grote.
3. Poster P32: Reducing cardiac complications after total joint replacement, **ML Swank, MD**; M. Alkire.
4. Poster 24: Blood conservation in primary total knee arthroplasty. **ML Swank, MD**; V Williams.
5. Posterior computer-assisted orthopaedic surgery with ligament balancing technique using an internal tensiometer lowers manipulation rate in total knee arthroplasty. **ML Swank, MD**; L Korbee. (Winner: Best Poster Award).
6. Poster: Comparison of mechanical axis measurements: Intraarticular navigation vs. postop standing films. Smail, **ML Swank, MD**; L Korbee.
7. Poster 34: computer-assisted surgery total hip replacement planning and outcome. **ML Swank, MD**
8. Special Poster: Navigation in hip resurfacing – Report of initial results. **ML Swank, MD**; L Korbee.
9. Poster R111: Imageless navigation in hip resurfacing, the impact of surgical volume on Computer assisted placement. Romanoski, **ML Swank, MD**
10. Poster: Use of transverse acetabular ligament for acetabular cup complement in Computer assisted total hip replacement. **ML Swank, MD**; M Alkire; L Korbee; J Grote.

RESEARCH/STUDY/CLINICAL TRIALS

JH 04-09 DigiMatch ROBODOC Surgical System: A prospectively designed, Randomized, Controlled multi-center clinical trial assessing the safety and efficacy of DigiMatch Technology in primary cement-less total hip arthroplasty. 2008-2007

JH 06-20 Birmingham Hip Resurfacing: Clinical Evaluation Of BrainLAB VectorVision Hip

SR™ Software for Birmingham Hip Resurfacing 2008-2006

JH 06-27 CaptureWare 2000 National Database for Orthopaedic Outcomes: CaptureWare Database Project 2008-2001

JH 06-24 Journey Knee: A prospective, consecutive series, multi-center clinical study analyzing the functional performance of the RENASYS/JOURNEY Naturally Articulating Knee System in Total Knee Arthroplasty 2008-2007

Clinical Evaluation of a Minimally Invasive Approach to Total Hip Replacement Surgery (MIS Hip) 2008-2003

JH 08-07 Efficacy of Knee Mobilization device in postoperative total knee Arthroplasty Rehabilitation. Freiberg Ortho 2008

JH 06-09 CPM vs. No CPM in Total Knee Replacement: Use of Inpatient Continuous Passive Motion (CPM) versus No CPM in Computer Assisted Total Knee Arthroplasty (TKA) 2008-2006

JH 07-06 Apixaban (CV185-035): A Phase 3, Randomized, Double-blind, Active-controlled, Parallel-group, Multi-center Study to Evaluate the Safety and Efficacy of Apixaban in Subjects Undergoing Elective Total Hip Replacement Surgery 2008-2007

JH 06-28 BrainLab Hip 5.0 Software Trial: A Clinical Evaluation of a Computer Aided Orthopaedic Software Package for Hip Replacement Surgery 2008-2006

JH 07-09 BrainLab 2.0 Software Knee Trial: A Clinical Evaluation of a Computer Aided Orthopaedic Software Package for Knee Replacement Surgery 2008-2006

A PDP Study of the Genesis II Mobile Bearing Knee System in Total Knee Arthroplasty 2008-2001

JH 06-19 MI TGIS Hip Study 2007-2006

JH 03-05 Clinical Evaluation of An Image Guided Approach to Minimally Invasive Total Hip Replacement Surgery (IGS-MIS Hip) Beta Floura Hip 2007-2003

JH 05-09 CAS Positive Financial Impact Study 2007-2005 DePuy

JH 06-06 Evaluation of the Factor Xa Inhibitor, PRT054021, Against Enoxaparin in a Randomized Trial for the Prevention of Venous Thromboembolic Events After Unilateral Total Knee Replacement (EXPERT) 2006

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. 2006-2002

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. 2005-2002

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

JH 01-25 Clinical Evaluation of the VectorVision Navigation System (BrainLAB Knee and Hip Project) 2003-2002.

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. 2002-2001.

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.

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.

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

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. 2001-2000.

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

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.

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

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.

1998-1997.

A Two-Year, Multi-Center, Prospective, Randomized Study of Pedicle Screw Fixation. CE Sutterlin, III MD; SP Barrett, MD; RJ Wisnewski, MD; CA Dickman, MD; FT Wetzell, MD; CB Michelson, MD; GG Field, MD; PC McAfee, MD; **ML Swank, MD**; M Reed, MD.

RESEARCH GRANTS

1. JH 06-09 CPM VS. No CPM in Total Knee Replacement: Use of Inpatient continuous passive motion (CPM) versus No CPM in computer Assisted Total Knee Arthroplasty (TKA) 2008
2. Characteristics of Titanium Surgical Mesh: A Study of Bio Ingrowth Following Repair of Corpectomy Defects. Medtronic Sofamor Danek 2003,
3. 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. The Jewish Hospital Research Council 2000
4. 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. Bethesda Foundations and Gliatech, Inc.
5. The Cost Effectiveness of a Perioperative Transfusion System in Patients Undergoing Elective Hip and Knee Replacement Surgery as an Alternative to Autologous Blood Donation. The Jewish Hospital Research Council. 1998,
6. The Diagnostic Value of Hoffmann's Sign in Predicting Cervical Spine Pathology and Impending Cervical Myelopathy. The Jewish Hospital Research Council. 1997
7. The Chiropractic Treatment of MRI/CT-Proven Lumbar Disc Herniations. The Jewish Hospital Research Council. 1997
8. 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. Bethesda Foundation. 1997,
9. 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. The Jewish Hospital Research Council. 1996
10. Medial Compartment Unicompartmental Knee Arthroplasty: A Clinical and Radiographic Outcome Study with Cost Analysis. **ML Swank, MD**; N Parks, MS; G Engh. MD.

HONORS AND AWARDS

Best Clinical Poster CAOS International 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.

Cincinnati Magazine’s selection as one of the area’s *Top Doctors* Nov 2008

Health Care Hero Awards: Innovator of the Year February 2008 Business Courier
February 26, 2008