

**DUKE UNIVERSITY MEDICAL CENTER**

***CURRICULUM VITAE***

**for  
Permanent Record  
and the  
Appointments, Promotions and Tenure Committee**

**Name:** Michael Paul Bolognesi, M.D., B.S.

**Date Prepared:** December 15, 2009

**Primary academic appointment (department):** Department of Surgery – Division of Orthopaedics

**Primary academic department (not DUAP):**

**Secondary appointment (if any) (department):**

**Present academic rank and title (if any):** Assistant Professor of Surgery (Track I)

**Date and rank of first Duke faculty appointment:** September 1, 2004; Assistant Professor of Surgery (Track I)

**Medical licensure: North Carolina License #** removed

**Date of License (Month/Day/Year):** June 16, 2004

**Utah License #** removed

**Date of License:** 8/13/2003

**Specialty certification and dates:**

Passed Part I examination of the American Board of Orthopaedic Surgery- 7/18/2003

Passed Part II examination of American Board of Orthopaedic Surgery- 9/2006

**Date of birth:** 6/23/1971

**Place:** Tubingen, Germany

**Citizen of:** USA

**Visa Status (if applicable):** N/A

<b><u>Education:</u></b>	<b><u>Institution</u></b>	<b><u>Date (Year)</u></b>	<b><u>Degree</u></b>
<b>High School</b>	Virginia Episcopal School	1989	Diploma
<b>College</b>	University of North Carolina-Chapel Hill	1993	B.S.
<b>Graduate School</b>	Duke University School of Medicine	1998	M.D.

**Scholarly societies (Alpha Omega Alpha, Sigma Xi, Phi Beta Kappa, etc.):** Cum Laude

**Professional training and academic career (chronologically commencing with first postdoctoral position):**

<u>Institution</u>	<u>Position/Title</u>	<u>Dates</u>
Duke University Medical Center	Resident	1998 - 2003
University of Utah Medical Center	Fellow	2003 - 2004
University of Utah Medical Center	Visting Instructor In Orthopaedics	2003 - 2004
Veterans Administration Medical Center Salt Lake City, Utah	Attending Surgeon- Orthopaedics	2003 - 2004
Duke University Medical Center	Assistant Professor	2004 - Present
University of Utah Medical Center	Adjunct Assistant Professor	2005 - Present

**Publications:**

**1. Refereed journals: (Refereed journals are scientific publications that have active editorial boards and a system of critical review of all submissions for publication.)**

1. **Bolognesi MP**, Chen, LE, Seaber, AV, Urbaniak, JR. The Protective Effect of Hypothermia on Contractile Force in Ischemic Skeletal Tissue. *Journal of Orthopaedic Research*, 14: 390-395, 1996.
2. Koukoubis, TD, Glisson, RR, **Bolognesi, MP**, Vail, TP. Dimensions of the Intercondylar Notch of the Knee. *American Journal of Knee Surgery*, 10: 1-6, 1997.
3. Yan, ZQ, **Bolognesi, MP**, Steeber, DA, Tedder, TA, Chen, LE, Seaber, AV, Urbaniak, JR. Blockade of L-selectin attenuates reperfusion injury in a rat model. *Journal of Reconstructive Microsurgery*, 16:227-33, 2000.
4. **Bolognesi, MP**, Pietrobon, R, Clifford, PE, Vail, TP. Comparison of a Hydroxyapatite-Coated Sleeve and a Porous-Coated Sleeve with a Modular Revision Hip Stem. A Prospective, Randomized Study *Journal of Bone and Joint Surgery Am.* 86: 2720-2725, 2004.
5. **Bolognesi, MP**, Hofmann, AA. Total Knee Arthroplasty Using an Imageless Computer-Navigated Technique Versus Standard Instrumentation: A Single Surgeon Experience. *Current Orthopedics and Related Research.* 440:162-9, 2005.
6. Lee, J, Schmader KA, **Bolognesi, MP**, Kaye, KS. Surgical Site Infection in the Elderly Following Orthopaedic Surgery: Risk Factors and Outcomes. *J Bone Joint Surg Am.* 88(8):1705-12, 2006.
7. Hofmann, AA, Kurtin, SM, Lyons, S, Tanner, AM, **Bolognesi, MP**. Clinical and radiographic analysis of accurate restoration of the joint line in revision total knee arthroplasty. *J Arthroplasty.* 21(8):1154-62, 2006.
8. Duncan, SFM, Hofmeister, E, **Bolognesi, MP**, Stewart R. AOA-JOA Traveling Fellowship 2006: The Fellows' Travel Log. *J Bone and Joint Surg Am.* 89:2312-2315, 2008.
9. Hofmann, AA, **Bolognesi, M**, Lahav, A, Hurtin S. Minimizing leg length inequality in total hip arthroplasty: use of pre-operative templating and an intraoperative x-ray. *Am J Orthop.* 37(1):18-23, 2008.
10. Grant, JA, Viens, N, **Bolognesi, MP**, Olson, SA, Cook, CA. Two year outcomes in primary THA in obese male patient veterans administration medical center patients. *Rheumatology International*, April, 2008.
11. Lalani, Chu, Grussmeyer, Reid, **Bolognesi, MP**, Friedman, Griffiths, Crosland, Kanafani, Kaye, Corey, Fowler. Clinical Outcomes and Costs among Patients with Staphylococcus Aureus

and Bacteremia and Orthopaedic Device Infection. *Scandinavian Journal of Infectious Diseases*. 10 :1-5, July, 2008.

12. **Bolognesi, MP**, Marchant, Jr. MH, Viens, NA, Cook, C, Pietrobon, R, Vail, TP. The Impact of Diabetes on Perioperative Patient Outcomes After Total Hip and Total Knee Arthroplasty in the United States. *Journal of Arthroplasty*. 2Sep;23(6 Suppl 1):92-8, 2008.
13. Unnanuntana, A, Dimitroulias, A, **Bolognesi, MP**, Hwang, KL, Goodman, SB, Marcus, RE. The Cost Comparison Between Cementless and Cemented Femoral Prosthesis at Three High-volume Academic Medical Centers. *CORR*. 2009 Jun;467(6):1546-51.
14. Cook, C, Hawkins, R, Aldridge III, JM, Tolan, S, Krupp, R, **Bolognesi, M**. Comparison of Perioperative Complications in Patients With and Without Rheumatoid Arthritis who Receive Total Elbow Replacement. *Journal of Shoulder and Elbow Surgery*. 2009 Jan-Feb;18(1):21-6.
15. Browne, J, Vail, TP, **Bolognesi, MP.**, Hip Resurfacing after Failed Free Vascularized Fibular Graft. *Journal of Arthroplasty*, 2009 Oct;24(7):1074-8.
16. Marchant MH Jr, Viens NA, Cook C, Vail TP, **Bolognesi MP**. The Impact of Glycemic Control and Diabetes Mellitus on Perioperative Outcomes after Total Joint Arthroplasty. *J Bone Joint Surg Am*. 2009 Jul;91(7):1621-9.
17. Catterall JB, Barr D, **Bolognesi M**, Zura RD, Kraus VB. Post-translational aging of Proteins in Osteoarthritic Cartilage and Synovial Fluid as Measured by Isomerized Aspartate. *Arthritis Res Ther*. 2009;11(2):R55.
18. Krenzel, BA, Cook, C, Martin, GN, Vail, TP, Attarian, DE, **Bolognesi, MP**. Posterior Capsular Injections of Ropivacaine During Total Knee Arthroplasty: A Randomized, Double-Blind, Placebo Controlled Study. *Journal of Arthroplasty*, 2009 Sep;24 (6 Suppl):138-43.
19. Watters TS, Hallows RK, Campbell P, Covington DB, Vail TP, **Bolognesi MP**. Lack of Radiographic Loosening Signs in a Hip Resurfacing that Failed by Stem Fracture. *Arch Orthop Trauma Surg*. 2009 Jun 16. (date of on-line publication)
20. Browne, JA, Cook, C, Olson, SA, **Bolognesi, MP**. Resident Duty Hour Reform Associated with Increased Morbidity Following Hip Fracture. *J Bone Joint Surg Am*. 2009 Sep;91(9):2079-85.
21. Ferrell, MS, Browne, JA, Attarian, DE, Cook, C, **Bolognesi MP**. Cementless porous-coated anatomic total hip arthroplasty at Duke: 18- to 24-year follow-up. *J Surg Orthop Adv*. 2009 Fall;18(3):150-4.
22. Cook, C, Hawkins, R., Aldridge JM 3<sup>rd</sup>, Tolan, S, Krupp R., **Bolognesi M**. Comparison of perioperative complications in patients with and without rheumatoid arthritis who receive total elbow replacement. *J Shoulder Elbow Surg*. *J Shoulder Elbow Surg*. 2009 Jan-Feb;18(1):21-6.
23. Domzalski, T, Cook, C, Attarian, DE, Kelley, SS, **Bolognesi, MP**, Vail, TP. Activity Scale for Arthroplasty Patients (ASAP) following total hip arthroplasty. *Journal of Arthroplasty*, 2010 Jan;25(1):152-7
24. Browne, JA, Cook, C, Hofmann, AA, **Bolognesi, MP**. Postoperative Morbidity and Mortality Following Total Knee Arthroplasty with Computer Navigation. *Knee*. *Knee*. 2010 Mar;17(2):152-6

### **In Press:**

#### **2. Non-refereed publications: (Non-refereed publications are those that frequently solicit articles and do not routinely use a system of critical review prior to publication.)**

1. **Bolognesi, MP**, Chen, LE, Seaber, AV, Urbaniak, JR. Immediate Effect of Hypothermic Storage at 4°C and 10°C on the Function of Skeletal Muscle. *Surgical Forum*, 51: 597-599, 1995.

2. Yan, ZQ, **Bolognesi, MP**, Chen, LE, Seaber, AV, Urbaniak, JR. Blockade of L-selectin-mediated leukocyte attenuates skeletal muscle reperfusion injury. *Surgical Forum*, 53: 521-522, 1998.
3. **Bolognesi, MP**, Annex, B, Thompson, M, Chen, LE, Seaber, AV, Urbaniak, JR. A potential role for tissue factor in reperfusion injury in skeletal tissue. *Surgical Forum*, 53: 526-527, 1998.

### 3. Chapters in books:

1. **Bolognesi, MP**, Hofmann, AA. Primary Total Knee Arthroplasty Outcomes: Cementless. OKU: Hip and Knee Reconstruction 3, Ed. Mont et.al., AAOS Publications, Chicago, 2005.
2. **Bolognesi, MP**. Navigated TKA and the ORTHOsoft Navitrack System. pgs 162-166, Navigation and MIS in Orthopaedic Surgery. Ed. Stiehl et al. Springer MedizinVerlag, Heidelberg, 2007.
3. **Bolognesi, MP**, Instructional Course Lectures Hip, Commentary/Editor- Modern Management of Complications, Ed. Vail, TP., American Academy of Orthopaedic Surgeons Publications, Rosemont, Illinois, 2007.
4. **Bolognesi MP**, AAOS Comprehensive Orthopaedic Review, Chapter 103- Primary TKA, Ed. Lieberman, JR, American Academy of Orthopaedic Surgeons Publications, Rosemont, Illinois, 2009.

### 4. Books:(Indicate authors or editor) None

### 5. Non-authored publications: (Faculty member formally acknowledged in the publication for her/his contributions) None

### 6. Other: a. Published scientific reviews (for mass distribution) None

#### b. Selected abstracts

### Scientific Presentations (National)

1. **Bolognesi, MP**, LE Chen MD PhD, AV Seaber, JR Urbaniak MD. Contractile Force in Skeletal Muscle after Various Periods of Hypothermic Ischemia, 11<sup>th</sup> Meeting American Society for Reconstructive Microsurgery, Marco Island, FL, Jan. 12-14, 1995.
2. **Bolognesi, MP**, LE Chen MD PhD, AV Seaber, , JR Urbaniak MD. The Protective Effect of Hypothermia on Contractile Force in Ischemic Skeletal Tissue, 41<sup>st</sup> Annual Meeting, Orthopaedic Research Society, February 13-16, 1995, Orlando, Florida
3. **Bolognesi, MP**, LE Chen MD PhD, AV Seaber, , JR Urbaniak MD. The Immediate Effect of Hypothermic Storage at 4°C and 10°C on the Function of Skeletal Muscle, 81<sup>st</sup> Clinical Congress of the American College of Surgeons, New Orleans, LA, October 22-27, 1995.
4. **Bolognesi, MP**, LE Chen MD PhD, AV Seaber, JR Urbaniak MD. The Response of Muscle Function to Hypothermic Storage at 4°C and 10°C, 11<sup>th</sup> Meeting American Society for Reconstructive Microsurgery, Tucson, AZ, Jan. 14-17, 1996.
5. **Bolognesi, MP**, LE Chen MD PhD, AV Seaber, JR Urbaniak MD. The Role of Neutrophils in Ischemia Reperfusion Injury, 1997 Meeting of Medical Student Fellows, Howard Hughes Medical Institute, Chevy Chase, MD, May 12-14, 1997.

6. Yan, ZQ, **Bolognesi, MP**, Chen, LE, Seaber, AV, Urbaniak, JR. Blockade of L-selectin-mediated leukocyte attenuates skeletal muscle reperfusion injury. 84<sup>st</sup> Clinical Congress of the American College of Surgeons, Orlando, Florida October 25-30, 1998.
7. **Bolognesi, MP**, Annex, B, Thompson, M, Chen, LE, Seaber, AV, Urbaniak, JR. A potential role for tissue factor in reperfusion injury in skeletal tissue. 84<sup>st</sup> Clinical Congress of the American College of Surgeons, Orlando, Florida October 25-30, 1998.
8. **Bolognesi, MP**, Goldberg TG, Hofmann, AA. TKA Using an Imageless Computer Navigated Technique vs Standard Instrumentation: A Single Surgeon Experience- Paper # 34, American Association of Hip Knee Surgeons Annual Meeting, Dallas, Texas November 5-7, 2004.
9. **Bolognesi MP**, Viens, N, Marchant, M, Cooc, C, Pietrobon, R, Vail TP. The Impact of Diabetes on Perioperative Patient Outcomes after Total Hip and Total Knee Arthroplasty in the United States. American Association of Hip and Knee Surgeons 17<sup>th</sup> Annual Meeting, Dallas, Texas, November 2-4, 2007.
10. **Bolognesi, MP**, Marchant, M, Viens, N, Cook, C, Pietrobon, R, Vail, TP. The Impact of Diabetes on Perioperative Patient Outcomes after Total Hip and Total Knee Arthroplasty in the United States. American Academy of Orthopaedic Surgeons 75<sup>th</sup> Annual Meeting, San Francisco, California, March 5-9, 2008.
11. Wilusz R, Darling E, **Bolognesi, MP**, Zauscher S, Guilak F. The Inhomogeneous Mechanical Properties of the Pericellular Matrix of Articular Cartilage Measured In Situ by Atomic Force Microscopy. ASME Summer Bioengineering Conference. Lake Tahoe, CA, June 17-21, 2009

#### Scientific Presentations (Regional)

1. **Bolognesi, MP**, Clifford, PE, Vail, TP. Bone defects affect outcome in proximally modular hip revision stems. North Carolina Orthopaedic Association, Wrightsville, NC, 2001.
2. **Bolognesi, MP**, Clifford, PE, Vail, TP. Bone defects affect outcome in proximally modular hip revision stems. 32<sup>rd</sup> Annual Meeting of the Eastern Orthopaedic Association, Southampton, Bermuda. October 10-14, 2001.
3. Berend, K, **Bolognesi, MP**, Pietrobon, R, Vail, TP. Patient factors influencing the rate of complications after primary and revision total hip arthroplasty. 32<sup>nd</sup> Annual Meeting of the Eastern Orthopaedic Association, South Hampton, Bermuda. October 10 – 14, 2001
4. **Bolognesi, MP**, Berend, KR, Scully, S, Moore, R, Urbaniak, JR. The role of lesion size in survival following free vascularized fibular grafting to the hip for osteonecrosis. North Carolina Orthopaedic Association, Asheville, NC, 2002.
5. **Bolognesi, MP**, Berend, KR, Scully, S, Moore, R, Urbaniak, JR. The role of lesion size in survival following free vascularized fibular grafting to the hip for osteonecrosis. 33<sup>rd</sup> Annual Meeting of the Eastern Orthopaedic Association, Amelia Island, Florida. October 16-20, 2002.
6. **Bolognesi MP** et al. Computer Assisted Reduction Method for Periprosthetic Distal Femur Fractures. 2006 Combined Annual Meeting of the North Carolina/South Carolina Orthopaedic Association, Asheville, North Carolina, October 5, 2006.
7. **Bolognesi MP** et al. Total Knee Arthroplasty with Intramedullary Femoral Canal Compromise: Does Computer Navigation Provide an Advantage? 2006 Combined Annual Meeting of the North Carolina/South Carolina Orthopaedic Association, Asheville, North Carolina, October 5, 2006.
8. **Bolognesi MP** et al. Indications for a Computer Assisted TKA: Cases Where a Femoral IM Rod Can Not Be Used. Piedmont Orthopaedic Society, 55<sup>th</sup> Annual Meeting, Sea Island, Georgia, May 9-13, 2007.

9. **Bolognesi MP** et al. The Impact of Diabetes on Perioperative Patient Outcomes after Total Hip and Total Knee Arthroplasty in the United States. Annual Meeting of the North Carolina Orthopaedic Association, October 26, 2007.
10. **Bolognesi MP** et al. Increasing Age at Surgery Correlates with Better Functional Outcomes Following Primary Total Knee Arthroplasty. Annual Meeting of the North Carolina Orthopaedic Association, October 26, 2007.
11. **Bolognesi MP** et al. Computer Navigated Hip Resurfacing: Reducing the Learning Curve? Annual Meeting of the North Carolina Orthopaedic Association, October 26, 2007.
12. **Bolognesi MP** et al. Resident Duty Hour Reform Associated with Increased Morbidity Following Hip Fracture. Piedmont Orthopaedic Society, 57th Annual Meeting, Sea Island, Georgia, May 6-10, 2009.
13. **Bolognesi MP** et al. Mid-Term Follow-up of the Conserve Plus Hip Resurfacing System: The Duke Experience. Piedmont Orthopaedic Society, 57th Annual Meeting, Sea Island, Georgia, May 6-10, 2009.
14. Mather RC, **Bolognesi MP**, Moorman CT, Orlando L, Watters, TS. Cost Effectiveness Analysis of Total Shoulder Arthroplasty and Humeral Hemiarthroplasty. 40th Annual Meeting of the Eastern Orthopaedic Association, Nassau, Bahamas, June 18, 2009
15. Watters TS, Berend KR, **Bolognesi MP**, Browne JA, Lombardi AV, Mather RC. Analysis of Procedure Related Costs and the Proposed Benefits of Using the Patient Specific Approach in Total Knee Arthroplasty. 40th Annual Meeting of the Eastern Orthopaedic Association, Nassau, Bahamas, June 18, 2009.
16. Watters TS, **Bolognesi MP**, Browne JA, Orlando L, Urbaniak JR, Wellman SS. Cost Effectiveness Analysis of Vascularized Fibular Grafting for Osteonecrosis of the Femoral Head. 26th Annual Meeting of the Southern Orthopaedic Association, Amelia Island, Florida, July 15-18, 2009.
17. Mather RC, **Bolognesi MP**, Moorman CT, Orlando L, Watters TS. Cost Effectiveness Analysis of Total Shoulder Arthroplasty and Humeral Hemiarthroplasty. 26th Annual Meeting of the Southern Orthopaedic Association, Amelia Island, Florida, July 15-18, 2009.

### Posters and Scientific Exhibits

1. **Bolognesi, MP**, Kurtin, SM, Hofmann, AA, Cook, T, Goldberg, T, Dominati, S-P. Accuracy of alignment in total knee arthroplasty using computer assistance. 71<sup>st</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, California. March 10-14, 2004.
2. Kurtin, SM, Hofmann, AA, **Bolognesi, MP**, Tanner, AM, Camargo, MP, Cook, T, Stirland, K. Revision total knee arthroplasty and accurate restoration of the joint line. 71<sup>st</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, California. March 10-14, 2004.
3. **Bolognesi, MP**, Lahav, A, Goldberg, TD, Hofmann, AA. Total Knee Arthroplasty Using an Imageless Computer-Navigated Technique Versus Standard Instrumentation: A Single Surgeon Experience. 72<sup>nd</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, Washington, D.C. February 23-27, 2005.
4. Lahav, A, Hocker, S, **Bolognesi, MP**, Bloebaum, R, Hofmann, AA. Effect of Celecoxib on Bone Ingrowth in Humans. American Association of Hip Knee Surgeons Annual Meeting, Dallas, Texas. November, 5-7, 2005
5. Lahav, A, Hocker, S, **Bolognesi, MP**, Bloebaum, R, Hofmann, AA. Effect of Celecoxib on Bone Ingrowth in Humans. 73<sup>rd</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons, Chicago, IL. March 22-26, 2006.

6. **Bolognesi, MP** et al. Bilateral Patellofemoral Arthroplasty, Third Annual Joint Arthroplasty Young Investigators' Conference, San Deigo, Californina, February 13, 2007.
7. **Bolognesi MP**, Marchant M, Viens N, Cook C, Pietrobon R, Vail TP. The Impact of Type I and II Diabetes on Perioperative Outcomes after Total Hip and Total Knee Arthroplasty in the United States. American Academy of Orthopaedic Surgeons 75<sup>th</sup> Annual Meeting, San Francisco, California, March 5-9, 2008.
8. Wellman S, Viens N, Cook C, **Bolognesi MP**, Vail TP. Increasing Age Predicts Greater Improvement in Knee Scores Following Primary Cemented Total Knee Arthroplasty. American Academy of Orthopaedic Surgeons 75<sup>th</sup> Annual Meeting, San Francisco, California, March 5-9, 2008.
9. Browne J, Cook C, Olson S, **Bolognesi MP**. Resident Duty Hour Associated with Increased Morbidity Following Hip Fracture. 122nd Annual Meeting of the American Orthopaedic Association, Bonita Springs, Florida, June 10-13, 2009.
10. Sabesan V, Queen R, Abbey A, **Bolognesi MP**. Gait Analysis of Patients with Hip Resurfacing Arthroplasty Compared to Large Head Total Hip Arthroplasy. 122nd Annual Meeting of the American Orthopaedic Association, Bonita Springs, Florida, June 10-13, 2009.
11. Sabesan V, Abbey A, **Bolognesi MP**, Queen R, Watters TS. Gait Analysis of Patients with Hip Resurfacing Arthroplasty Compared to Large Head Total Hip Arthroplasy at 1-2 Years Postoperative. 26th Annual Meeting of the Southern Orthopaedic Association, Amelia Island, Florida, July 15-18, 2009.
12. Queen R, Abbey A, Sabesan V, Covington D, Vail TP, **Bolognesi MP**. Gait Symmetry: Hip Resurfacing vs. Total Hip Athroplasty. American Association of Hip and Knee Surgeons, Dallas, Texas, November 6-8, 2009.

**c. Editorials, position, and background papers**

None

**Consultant appointments: (Include US government, state, private organizations, etc.)**

- Zimmer Inc.
- Amedica (Surgeon Advisory Board)
- Biomet Inc.
- Total Joint Orthopaedics

**Invited Presentations and Educational Courses**

**International:**

1. April , 12-15, 2005- IV International Course in Arthroplasties, Barcelona, Spain  
Computer Assisted surgery in TKA  
Is PS necessary or will a deep dish do?  
MIS for unicompartmental and TKA
2. February 25,2006- Whistler, B.C., Canada Emerging Trends and Controversies in Hip and Knee Arthroplasty, Surgical Navigation for Total Knee Arthroplasty, CAOS versus Chaos
3. February 25,2006- Whistler, B.C., Canada Emerging Trends and Controversies in Hip and Knee Arthroplasty, Cementless Total Knee Arthroplasty
4. February 25,2006- Whistler, B.C., Canada Emerging Trends and Controversies in Hip and Knee Arthroplasty, Articulating Spacers for Infected Total Knee Arthroplasty

5. May 9, 2006- Department of Orthopaedic Surgery, Nara Medical University, Kashihara, Nara, Japan. Computer Assisted Total Knee Arthroplasty
6. May 11, 2006- Department of Orthopaedic Surgery, Hyogo College of Medicine, Nishinomiya City, Hyogo, Japan, Computer Assisted Total Knee Arthroplasty
7. May 15, 2006- Department of Orthopaedic and Musculoskeletal Surgery, Graduate School of Medicine, Kyoto University, Sakyo-ku, Kyoto, Japan, Computer Assisted Total Knee Arthroplasty
8. May 19, 2006- The 79<sup>th</sup> Congress of the Japanese Orthopaedic Association, Yokohama, Japan, Computer Navigation versus Standard Instrumentation for TKA: A Single Surgeon Experience, Paper 2-E-EP13
9. May 22, 2006- Orthopaedic Surgery, Reconstructive Surgery and Rehabilitative Medicine, Division of Advanced Medical Science, Hokkaido University, Kita-ku, Sapporo, Japan, Computer Assisted Total Knee Arthroplasty
10. May 24, 2006- Department of Orthopaedic Surgery, School of Medicine, Sapporo Medical University, Chuo-ku, Sapporo, Japan, New Trends in Total Joint Arthroplasty
11. May 27, 2006- Department of Orthopaedic Surgery, Hirosaki University School of Medicine, Hirosaki, Aomori, Japan, Minimally Invasive TKA and Computer Assisted TKA

**National:**

1. June, 17, 2004- Instructional Video on Computer Assisted Total Knee Arthroplasty, Computer Assisted Orthopaedic Surgery International Meeting, Chicago, Illinois
2. October, 28 - 30, 2004- MIS meets CAOS Symposium Series, Naples, Florida. TKA – Imageless Computer Navigated Technique vs Standard Instrumentation Navitrack System- Optical Total Knee Replacement (TKR) CTS-Less Device Technique
3. March, 17-20, 2005- 21<sup>st</sup> Annual Hip, Knee & Shoulder Symposium, Salt Lake City, Utah CAS TKA- Imageless
4. July, 15, 2005- Minimally Invasive Surgical Solutions in the Hip and Knee University of Utah Medical Center, Salt Lake City, Utah Moderator (video surgery session)- MIS TKA, MIS THA, CAS TKA, Uni
5. September 15-18, 2005- Annual Grand Rounds Fellows Education Reunion- Park City, Utah- Computer Assisted TKA
6. June 22-23, 2007 - Rosemont, Illinois, The American Academy of Orthopaedic Surgeons CME Courses Committee Minimally Invasive Hip and Knee Arthroplasty: Techniques and Computer Navigation
7. August 9-12, 2007- Zimmer National Orthopaedic Resident Program, Chicago, Illinois- Computer Navigation Lab
8. September 25, 2008 Clinical Orthopaedic Society, Annapolis, Maryland- Computer Assisted TKA
9. September 27, 2008- Interurban Orthopaedic Society, Yale Medical Center, New Haven Connecticut- Resident Duty Hour Reform and Hip Fracture Outcomes
10. February 25, 2009- AAOS Zimmer Booth #4228, Las Vegas, Nevada- TKA Applications in Computer Assisted Surgery (CAS Knee)
11. February 25, 2009- AAOS Zimmer Booth #4228, Las Vegas, Nevada- THA Applications in Computer Assisted Surgery (CAS Hip)
12. September, 2009- Zimmer National Orthopaedic Resident Program, Indianapolis, Indiana- Faculty Member, CAS THA Lecture.

13. October 2009- AAOS/AAHKS Unicompartmental and Total Knee Arthroplasty Course, Rosemont, Chicago- Faculty Member, Metal Augments, CAS TKA Video Demonstration

**Regional:**

1. Fall 2004- North Carolina Orthopaedic Association, Asheville, North Carolina. Revision Total Knee Arthroplasty and Accurate Restoration of the Joint Line TKA – Imageless Computer Navigated Technique vs Standard Instrumentation
2. September, 2004- Interurban Orthopaedic Society, Durham, North Carolina. Computer Navigation in Total Joint Arthroplasty
3. June, 27, 2005- Grand Rounds Asheville VAMC. Computer Assisted Total Knee Arthroplasty
4. August 3-6, 2005- 22<sup>nd</sup> Annual Meeting of the Southern Orthopaedic Association Symposium- Computer Assisted Total Knee Arthroplasty
5. September 7, 2005- Greenville, SC- Orthopaedic Grand Rounds- Greenville Memorial Hospital, Computer Assisted TKA
6. September 27-28, 2007 – Ponte Vedra, Florida, Orthopaedic Summit - Minimally Invasive Computer Assisted Total Knee Arthroplasty
7. October 19-20, 2007 – Greensboro, North Carolina, 2007 Fall Conference North Carolina Physical Therapy Association. New Trends & Evolving Technology in Orthopaedic Surgery, Hip Resurfacing, MIS Total Hip and Total Knee Arthroplasty, Unicompartmental Knee Arthroplasty, CAS Total Knee Arthroplasty
8. April 17-18, 2009- Durham, North Carolina, Duke University, Emily Berend Adult Reconstruction Symposium- Metal on Metal Total Hip Arthroplasty, Computer Assisted TKA
9. June 18, 2009, Nassau, Bahamas, 40th Annual Meeting of the Eastern Orthopaedic Association, CAS TKA: Its Just an Expensive Video Game Where Everyone is a Winner
10. June 18, 2009, Nassau, Bahamas, 40th Annual Meeting of the Eastern Orthopaedic Association, Patient Specific TKA
11. July 17, 2009, Amelia Island, Florida 26th Annual Meeting of the Southern Orthopaedic Association, MIS TKA: The Advantage is in What You Cannot See, Everyone is a Winner!

**Professional awards and special recognitions:**

2008-2010	Guest Editor, AAHKS Supplement, The Journal of Arthroplasty
2006	InSCOPE Orthopedic Fellowship Award
2006	AOA-JOA Exchange Traveling Fellowship
2004	Zimmer Career Development Award
2003	John Harrelson Chief Resident Teaching Award
2002	Eastern Orthopaedic Association Resident Travel Award
2001	Resident Reporter Program, AAOS
2001	AO/ASIF Resident Pre-operative Plan Award
1996-1997	Howard Hughes Research Training Fellowship for Medical Students
1989-1993	John Motley Morehead Scholar- University of North Carolina at Chapel Hill Dean's List, Atlantic Coast Conference Honor Roll Peach Bowl Scholar Athlete Award

**Organizations and participation: (Offices held, committee assignments, etc.)**

1997-98 President- Duke University School of Medicine Student Government (Davison Council)  
1996-97 Vice-President, Social Chairman- Davison Council  
1995-96 Class Representative- Davison Council  
1994-98 Davison Council- Social Committee, Budget Committee, Career Development Committee  
1998-present Class Agent, Duke University School of Medicine Class of 1998  
2001-2005 Member, Board of Directors, Educational Foundation, Inc./ Ram's Club (UNC-CH)  
2002-2005 Chapter Head, Durham County, Ram's Club  
2003-present Piedmont Orthopaedic Society- Member-at-Large  
2004-present American Association of Orthopaedic Surgeons  
2005-present American Association of Hip and Knee Surgeons  
2005-present North Carolina Orthopaedic Association  
2005-present American Orthopaedic Association- ELF Program  
2007-present Duke University Medical Alumni Council Member  
2007-present Director of Adult Reconstruction, Division of Orthopaedic Surgery, Duke University  
2007-present Director of Adult Reconstruction Fellowship, Duke University Medical Center  
2007-present Interurban Orthopaedic Society  
2008-present AAHKS, Membership Committee  
2008-present AAHKS, Program Committee  
2008-present AAHKS, Publication Committee  
2008-present Editorial Board, Journal of Surgical Orthopaedic Advances  
2009- North Carolina Orthopaedic Association, Recording Secretary

**Teaching responsibilities including continuing education:**

Residency- clinical training of medical students on the Orthopaedic service at Duke North and Durham VA Medical Center, classroom education of medical students for Physical Diagnosis  
Multiple Grand Rounds Presentations 1995-1998

Fellowship- Appointed position of Visiting Instructor In Orthopaedics at the University of Utah Medical Center and Staff Orthopaedic Surgeon at the Salt Lake City VAMC. Responsibilities included staffing cases and training residents in the operating room and in the clinic at the VAMC. Also helped train residents while on the Adult Reconstruction Service at the University of Utah Medical Center. This included training residents in the operating room, clinic, and on rounds.

Assistant Professor- Teaching of medical students and residents in the clinic, on the floor and in the operating room. This includes interaction at Duke University Medical Center as well as the Durham VA Medical Center. Attendance of multiple weekly conferences (Adult Reconstruction conference, Grand Rounds, Fracture Conference, Journal Club) with presentation as scheduled. Direct collaboration with residents on independent research projects at Duke and the VAMC.

**Areas of research interests (basic and applied) - list:**

Basic- femoral strain patterns around total joints, skeletal fixation/bone ingrowth into implants, the effect of COX-2 inhibitors on bone ingrowth, avascular necrosis of the femoral head

Applied- clinical outcome studies in total knee arthroplasty and total hip arthroplasty, computer assisted techniques for total knee arthroplasty and total hip arthroplasty, minimally invasive approaches for total

knee arthroplasty and total hip arthroplasty, biologic options for management of avascular necrosis of the femoral head

**External support (past and present) - gifts, grants, and contracts:**

<u>PI</u>	<u>%Effort</u>	<u>Amount</u>	<u>Duration</u>
Howard Hughes Research Training Fellowship for Medical Students (PI: Michael Bolognesi)	0%	\$ removed	8/1/96 – 8/1/97
Zimmer Career Development Award- OREF (PI: Bolognesi, M)	0%	\$ removed	7/1/04 – 7/1/09
The Effect of Rofecoxib on Bone Ingrowth In Porous Coated Titanium Implants In Humans The goal of this study is to determine the effect of different anti-inflammatory medications on bone ingrowth in a human knee model.			
Clinical Trial: Zimmer-Orthosoft Navitrack Multicenter Study- Computer Assisted TKA vs Standard TKA (PI: Bolognesi, M)	0%	\$ removed	1/1/06 – 1/1/09
The goal of the study is to compare the clinical outcomes following total knee arthroplasty done with a standard technique and following the same procedure when performed with a computer assisted technique.			
<i>inSCOPE</i> Orthopaedic Fellowship Awards Program (PI: Bolognesi, M)	0%	\$ removed	4/1/06 – 10/1/09
The Role of Intra-Operative Intracapsular Blocks in Post-Operative Pain Management following Total Knee Arthroplasty The goal of this study is to determine the benefits of intracapsular injection for pain control following total knee arthroplasty.			
Wright Medical- Multicenter Conserve Plus Total Resurfacing System Study (PI: Bolognesi, M)	1%	\$ removed	12/1/00 - present
This is a clinical IDE device trial that follows patients who underwent resurfacing with the Conserve Plus hip resurfacing system from Wright Medical. Amount: \$ 40,000.-			
Zimmer- A Prospective, Randomized, Controlled Study Comparing Three Tibial Component Designs in Total Knee Arthroplasty (PI: Bolognesi, M)	1-2%	\$ removed	5/1/04 - present
This is a multicenter trial looking at the clinical performance of three different tibial stem designs.			
Depuy- Clinical Investigation of the Depuy ASR System (PI: Bolognesi, M)	1%	\$ removed	10/1/04 - present
This is a clinical IDE device trial that follows patients who underwent resurfacing with ASR hip resurfacing system from Depuy Johnson and Johnson.			

Depuy- Knee Replacement before the Seventh Decade in Life: A Comparison of Knee Arthroplasties using Medium Viscosity Bone Cement

(PI: Bolognesi, M) 2-3% \$ removed 5/1/05 - present

This goal of this study is to compare the clinical performance of two bone cements that were utilized with the same knee implant.

Depuy- Polished CoCr versus Titanium Tibial Trays in Total Knee Replacement (PFC Sigma System)

(PI: Bolognesi, M) 2-3% \$ removed 5/1/05 - present

This goal of this study is to compare the clinical performance of CoCr tibial base plates and Ti tibial base plates of the same geometry and design.

Depuy- Metal on Metal versus Metal on Polyethylene Total Hip Replacement (PINNACLE acetabular cup system)

((PI: Bolognesi, M) 2-3% \$ removed 5/1/05 - present

This goal of this study is to compare the clinical outcome of these two THA systems. The only design difference present is the bearing surface material.

**Clinical activity - type of practice and estimate of time commitment:**

Focused patient population with hip and knee pathology

Three operative day/week - Duke North - 30 hours

One and one half days of clinic/week – PDC - 18 hours

Dedicated Research Activities - 10-15 hours

Regular Call on Orthopaedic Trauma Schedule

**Participation in academic and administrative activities of the University and Medical Center:**

Duke University School of Medicine 1994-98

Curriculum Committee

Undergraduate Medical Education Executive Committee

Special Guest to MEDPAC

Planning Committee for Duke North OR Renovation Project

Responsible for determining intra-operative navigation and imaging platforms

PDC Retirement Committee Member (2007 to present)

Medical Director Surgery SBR (Site Based Research)- Orthopaedic Surgery (2007 to present)

Director, Adult Reconstruction, Total Joint Fellowship Program (2007 to present)

Chair, Orthopaedic Research Committee (2007 to present)

Othopaedic Executive Committee Member (2008 to present)

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**Signature of Chairman**

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**Date**

