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**Place of Birth:** Pittsburgh, PA

### Education

1979	B.A. <i>cum laude</i>	Biology and Mathematics	Washington & Jefferson College, Washington, PA
1982	M.S.	Physics-Biophysics	Georgetown University, Washington, DC
1983	Ph.D.	Physics-Biophysics Ph.D. Advisor: George I. Malinin, Ph.D.	Georgetown University, Washington, DC
1991	M.D.	Medicine	University of Pittsburgh School of Medicine, Pittsburgh, PA

### Postdoctoral Training

1983-1985	Fellowship	Research	Department of Surgery, Surgical Research Laboratories, University of Miami School of Medicine, Miami, FL
1988-1991	Fellowship	Research	Medical Oncology Laboratory, University of Pittsburgh School of Medicine, Pittsburgh, PA

1989-1991	Fellowship	Research	Allegheny Singer Research Laboratory, Medical College of Pennsylvania/Allegheny General Hospital, Pittsburgh, PA
1991-1992	Internship	Clinical	Department of Surgery, University of Miami/Jackson Memorial Hospital, Miami, FL
1992-1996	Residency	Clinical	Department of Orthopaedics and Rehabilitation, University of Miami/Jackson Memorial Hospital, Miami, FL
1996-1997	Fellowship	Clinical	Orthopaedic Surgery, Musculoskeletal Oncology Service, Massachusetts General Hospital and Boston Children's Hospital/Harvard Medical School, Boston, MA

**Faculty Academic Appointments**

1979-1983	Research Assistant	Department of Physics	Georgetown University, Washington, DC
1985-1987	Research Assistant Professor	Department of Surgery	University of Miami, Miami, FL
1996-1998 (sabbatical leave for clinical fellowship 8/96 – 7/97)	Clinical Associate Professor	Department of Orthopaedics and Rehabilitation	University of Miami, Miami, FL
1998	Associate Professor (transition to Associate from Clinical Associate Professor)	Department of Orthopaedics and Rehabilitation	University of Miami, Miami, FL

Summer 1998-2002	Assistant Professor	Orthopaedic Surgery	Harvard Medical School, Boston, MA
2002-2014	Associate Professor	Orthopaedic Surgery	Harvard Medical School, Boston, MA
2013- present	Henry J. Mankin, MD, Endowed Scholar	Orthopaedic Surgery	Massachusetts General Hospital, MA
2014- present	Professor	Orthopaedic Surgery	Harvard Medical School, Boston, MA

### **Appointments at Hospitals/Affiliated Institutions**

#### **Past**

1975-1979	Research Technician	Addison H. Gibson Endocrinology Laboratories	Shadyside Hospital, Pittsburgh, PA
1981-1983	Biophysical Research Associate	Research Foundation	Washington Hospital Center, Washington, DC
1991-1996	House Staff Physician		Jackson Memorial Hospital, Miami, FL
1996-1997	Assistant	Orthopaedic Surgery	Massachusetts General Hospital, Boston, MA
1996-1997	Assistant	Orthopaedic Surgery	Boston Children's Hospital, Boston, MA
1996-1998	Staff Physician		Cedars Medical Center, Miami, FL
1996-1998	Attending Staff Physician		Jackson Memorial Hospital, Miami, FL
1997-1998	Staff Physician		Doctor's Health South Hospital, Coral Gables, FL
1997-1998	Staff Surgeon		Veterans Administration Hospital, Miami, FL
1998-2000	Staff Physician		Brigham and Women's Hospital, Boston, MA

1998-2001	Assistant Orthopaedic Surgeon	Orthopaedic Surgery	Massachusetts General Hospital, Boston, MA
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**Current**

1998-present	Staff Physician	Complex spine/sacral/pelvic cases	Boston Children's Hospital, Boston, MA
2000-present	Chief	Orthopaedic Oncology Service	Massachusetts General Hospital, Boston, MA
2001-present	Associate Orthopaedic Surgeon	Orthopaedic Surgery	Massachusetts General Hospital, Boston, MA
2005-present	Courtesy Staff	Complex spine/sacral/pelvic cases	Beth Israel Deaconess Medical Center, Boston, MA
2010-present	Staff Physician	Clinics within Cancer Center; no surgery at outpatient facility	North Shore Cancer Center, Danvers, MA

**Major Administrative Leadership Positions**

**Local**

1983	Supervisor, Surgical Research Laboratories,	University of Miami, Miami, FL
1998	Supervisor, Orthopaedic Research Laboratories	University of Miami, Miami, FL
2000-2011	Director, Musculoskeletal Oncology Fellowship	Harvard Medical School, Boston, MA
1999-present	Supervisor, Sarcoma Molecular Biology Laboratory	Massachusetts General Hospital, Boston, MA
2008-present	Director, Stephan L. Harris Chordoma Center	Massachusetts General Hospital, Boston, MA
2008-present	Co-Leader, Dana Farber/Harvard Cancer Center Sarcoma Group	Dana Farber/ Harvard Cancer Center, Boston, MA
2001-present	Co-Director Center for Sarcoma and Connective Tissue Oncology	Massachusetts General Hospital, Boston, MA
2008-present	Scientific Advisory Board	Stephan L Harris Chordoma Center, MGH, Boston, MA
2013 - present	Vice Chairman for Biological Research	Orthopaedic Surgery, Massachusetts General Hospital, Boston, MA

## Committee Service

### Local

1983-1997	Tissue Bank	University of Miami, Miami FL Associate Director Steering Committee member Quality Assurance Committee member
1997-1998	Pediatric Oncology Committee	University of Miami, FL
1997-1998	Sarcoma Committee	University of Miami, FL Co-director, Sarcoma Committee
1997-1998	Clinical Research Committee	University of Miami, FL
1998-2003	Computer Radiology Committee leader	Massachusetts General Hospital Orthopaedics, Boston, MA
1998-2007	International Medical Assistance Team (supervised by Susan Briggs, MD)	Massachusetts General Hospital, Boston, MA
2001-2003	Orthopaedic Web Site Committee	Massachusetts General Hospital, Boston, MA
2006 - 2008	Responsible Physician Committee	Massachusetts General Hospital, Boston, MA
1998-present	Connective Tissue Oncology Clinic/Conference Executive Committee	Massachusetts General Hospital, Boston, MA
1999-present	Medical Advisory Committee	Massachusetts General Hospital Bone Bank, Boston, MA
2001-present	Executive Committee on Orthopaedic Research	Massachusetts General Hospital, Boston, MA
2002-present	Cancer Center Executive Committee	Massachusetts General Hospital, Boston, MA
2006-present	Cancer Center Leadership Council	Massachusetts General Hospital, Boston, MA
2010-present	MGH Office for Research Career Development, Career Day and Poster Celebration Review Committee	Massachusetts General Hospital, Boston, MA
1998 – present	Ambulatory Disaster Committee, co- physician leader	Massachusetts General Hospital, Boston, MA
1998-2000	Surgical Coordinating Committee substitute	Massachusetts General Hospital, Boston, MA,
2000 - present	Dana Farber Partners Cancer Care Leadership Committee	Massachusetts General Hospital, Boston, MA, member
2004 - present	Physician Fee Advisory Committee	Massachusetts General Hospital, Boston, MA

## National

2010 – 2013	Member of CBER and TESAC committees: voting member	Federal Drug Administration	Bethesda, MD
2013 – present	Special Consultant for CBER and TESAC: non-voting member	Federal Drug Administration	Bethesda, MD
2013 – present	Biological Implant Committee	AAOS	Chicago, IL

## International

1998 – 2008	National Disaster Medical Assistance FEMA	Department of Health and Human Services, US Public Health Service (MGH Team)
2013-present	China Hospital Initiative and Drug Development (Intellectual Property Advisor: Brian Seed, PhD)	Massachusetts General Hospital, Boston, MA

## Professional Societies

1983-present	American Association for the Advancement of Science	Member
1983- 1987	Reticuloendothelial Society	Member
1987-present	Society of Sigma Xi	Member
1987-present	American Society for Cell Biology	Member
1991-present	American Medical Association	Member
1996-present	Florida Medical Society	Member
1998-present	American Association of Tissue Bank	Member
	1998- 2000	Physician Liaison Committee
	1998- 2000	Musculoskeletal Council
	2000, 2002	Standards Committee
	2003 - 2011	Board of Governors
	2007-2009	President
1998-present	Massachusetts Medical Society	Member
1999-present	New England Orthopaedic Society	Member
1999-present	Massachusetts Orthopaedic Society	Member

2000-present	Connective Tissue Oncology Society	Member
2000-present	Orthopaedic Research Society	Member
	2010- 2011	Career Day and Annual Poster Celebration
	2010- 2011	Review Committee
	2010- 2011	Program Committee
2001-present	American Academy Orthopaedic Surgeons	Member
2001-present	Musculoskeletal Tumor Society	Member
	2009-2010	Secretary
2002-present	American Orthopaedic Association	Member
2004-present	Society of Pelvic Surgeons	Member
2013-present	International Society of Limb Salvage	Board and member

### Grant Review Activities

2008-present	Sarcoma Research, Libby Shriver Foundation	Grant Application Reviewer
2010-present	Massachusetts General Hospital Cancer Center Bucket 5	Annual Grant Reviewer
2010-present	SARC Career Development Award	Annual Grant Reviewer
2008-present	Chordoma Foundation, Durham, NC	Annual Grant Reviewer
2008-present	Desmoid Tumor Research Foundation. NY	Annual Grant Reviewer

### Editorial Activities

1999	Clinical Cancer Research
1999	Journal Orthopaedic Research
1999	Cancer
2000	Journal Pediatric Hematology/Oncology
2001	Clinical Orthopaedic Related Research
2009	Annals of Surgical Oncology
2012	<a href="#">Sarcoma</a>
2013	<a href="#">PlosOne</a>
2014	<a href="#">Oncotarget</a>

### Other Editorial Roles

2000-2004	Guest Editor	Current Opinion in Orthopaedics
2006 – 2013	Editorial Board	Journal Surgical Oncology
2010-2013	Associate Editor	Journal Surgical Oncology Sarcoma Section
2011-present	Editorial Board	The Scientific World Journal Orthopaedic Domain
2013-present	Co-Editor-in-Chief	Orthopaedic Surgery Journal

### Honors and Prizes

1979	B.A. cum laude	Washington and Jefferson College	
1980	Achievement Reward for College Scientists (ARCS) Award	Georgetown University, Washington, DC	
1982	Achievement Reward for College Scientists (ARCS) Award	Georgetown University, Washington, DC	
1983	Marshall	Georgetown University, Washington, DC	Requested to lead graduating class
1986	Who's Who in Science and Engineering	Society of Sigma Xi, University of Miami, Miami, FL	
1999	Vision award	Systems Thinking Linkage	Lead role in transition from film to filmless – digital system and improving patient experience during radiology and clinic evaluation
2007	Brian McGovern Award For Clinical Excellence	Massachusetts General Hospital	Clinical Excellence Award
2008	One Hundred	Massachusetts General Hospital Cancer Center	Individual key role in Cancer Center
2009	One Hundred	Massachusetts General Hospital Cancer Center	Multidisciplinary sarcoma group key role
2010	One Hundred	Massachusetts General Hospital Cancer Center	Stephan L. Harris Chordoma Center and Iko Harris recognition
2010	Scientific Award	Orthopaedic Research Society/American Academy of Orthopaedic Surgeons	Best Paper Award



## Report of Funded and Unfunded Projects

### Funding Information

- 1982-1998 Allograft bone plate and massive allograft transplantation  
University of Miami Tissue Bank  
Co-PI T.I. Malinin, M.D., 50K/yr  
Modification of osteoblast cell membranes with psoralen and/or UV-light. Periodic acid oxidation of cell membrane glycoproteins and production of cytokines.
- 1986-1987 Effect of hyperbaric oxygen on tumor cell kinetics and on tumor angiogenesis  
American Cancer Society  
co-PI David S. Robinson, M.D.: 25K/yr  
Immune response modulation by factor associated with tumor angiogenesis
- 1998-2000 NMR spectra of malignant and benign cartilage neoplasms  
Internal Funding: MGH Pathology  
Co-Investigator Darryl PalmerToy, M.D.
- 1999-2001 PCR-97 Idea Development Award  
Department of Defense  
Consultant  
An innovative strategy for the prevention and treatment of metastatic prostate cancer:  
Modified tetracyclines as chemotherapeutics
- 1999-2002 NIH/R01  
Consultant  
Metastatic progression of prostate cancer: understand the mechanism of prostate metastases to bone
- 2001 Gamma Nail Fixation for Pathologic Fractures  
Howmedica-Osteonics  
Co-PI John E. Ready, M.D., 25 K  
Evaluate patients treated for pathologic fracture with Gamma Nail fixation
- 1999-2008 Training grant: Clinical Research  
Howmedica then Stryker Corporation  
PI 85K/yr  
Support of fellowship training in musculoskeletal oncology and research projects dealing with orthopaedic oncology
- 1999-2006 Ecteinascidin-743 (ET-743) in the treatment of bone and soft tissue sarcoma patients  
2007-2009 PharmaMar  
PI (range of 50 to 115 K/yr)  
Determine mechanism of ET-743 interaction with sarcoma cells; determination of mechanisms of drug resistance

- 1999-2008 Training grant: Clinical Research  
Howmedica then Stryker Corporation  
PI 85K/yr  
Support of fellowship training in musculoskeletal oncology and research projects dealing with orthopaedic oncology
- 1999-2006 Ecteinascidin-743 (ET-743) in the treatment of bone and soft tissue sarcoma patients  
2007-2009 PharmaMar  
PI (range of 50 to 115 K/yr)  
Determine mechanism of ET-743 interaction with sarcoma cells; determination of mechanisms of drug resistance
- 2010 Ecteinascidin-743 and analogs: effects on Sarcoma and *in vitro* and *in vivo*  
50K/yr

#### Sarcoma Clinical Research Projects

1. Investigator, prospective clinical trial: DFCI # 97-502 Phase II Study of High Dose Proton/Photon Radiation Treatment +/- Surgery for Sarcomas of the Thoracolumbosacral Spine. Completed accrual March, 2005. ASTRO Annual Meeting 11/06. Published 2008.
2. Investigator Protocol #2001-P-000490/1;MGH  
MAID Chemotherapy, Radiotherapy, and Surgery for Patients with High Grade Extremity Sarcomas > 8 cm. Retrospective clinical study. Published 2003.
3. Investigator Protocol #2004-P-000581/2; MGH  
Local Control of Unresected Soft Tissue Sarcomas With Radiation Therapy. Retrospective clinical study. Results published 2005, 2007.
4. Investigator Protocol MGH: Assess Outcome of Patients Treated for Sarcomas Sarcoma Database. Currently has >20,000 patients. One of largest sarcoma databases in the world. Results of associated projects published 2005, 2008.
5. Investigator Protocol #: 2005-P-000809/1; MGH  
Comparison of Proton and Photon Radiation Treatment Plans for Retroperitoneal Sarcomas. Presented ASTRO Annual Meeting, 2006.
6. Investigator DFCI Protocol #: 07-162  
Hypoxia-Positron Emission Tomography and Intensity Modulated Proton Therapy in Patients with Chordomas. Study funded by Ira J. Spiro Translational Research Award (4/1/2008-present; Helen Shih MD: Principal Investigator; FJH: Co-Investigator). Accruing.

7. Investigator Protocol #: 2004-P-000160/3;MGH

Patterns of Local Recurrence after Pre-operative Radiation Therapy for Adult, Extremity Soft Tissue Sarcomas. Connective Tissue Oncology Society Meeting, 2008.

### **Orthopaedic Oncology Research Projects**

FJH PI (10/01/08 to 9/30/13)

Stephan L. Harris Fund for Chordoma Research

Molecular characterization of chordoma, translational research and targeted clinical trials.

To define the molecular alteration in chordoma and to generate *in vivo* models and xenografts for drug testing.

FJH coPI (6/1/09 to 5/31/10)

Orthopaedic Surgery Academic Enrichment Fund

Giant cell tumor project gene array analysis and microdissection

With Oral Maxillofacial Surgery

FJH coPI (6/1/10 to 5/31/11)

Orthopaedic Surgery Academic Enrichment Fund

Development of Tissue Microarray for Osteosarcoma

FJH CoPI (6/01/10 to 5/01/11)

Sarcoma Foundation of America

Targeting kinases to reverse multidrug resistance in human sarcoma

To determine the role of kinase inhibitors in the mechanism of drug resistance of human sarcoma.

FJH PI (8/1/09 to 7/31/11)

Stryker Corporation

Proximal femoral reconstruction for metastatic disease

To determine outcome of patients who underwent proximal femoral reconstruction following resection of primary and metastatic disease.

FJH PI (8/01/05 to 7/31/08)

Zimmer Corporation

“Orthopaedic Oncology Training Grant”

The objective is to train fellows in the field of musculoskeletal oncology and to support clinical research projects

FJH PI (10/1/06 to 9/30/11)

RTI and Eli Lilly Corporations/ DFCI 03-233

Osteosarcoma and association with Forteo

To identify a possible relationship between Forteo and osteosarcoma in patients over 40 years old.

FJH coPI (2011-2012)

Chordoma Foundation: Evaluation of the miRNA-1 as potential therapeutic target for treatment in chordoma

FJH CoPI (3/31/09- 4/1/11)

FJH Internal Funding: MGH Radiation Oncology/ DFCI 07-162

Hypoxia-PET and IMPT/Dose Painting in Patients with Chordomas: A Pilot Study

To locate regions of hypoxia in chordomas and assess radiation effect prior to resection and/or definitive radiation treatment.

FJH CoInvestigator (9/1/10 – 8/31/15)

1U01- CA151452-01

NCI/NIH

*Combinatorial-Designed Nano-Platforms to Overcome Tumor Drug Resistance*

Cancer Nanotechnology Platform Partnership (CNPP) U01 proposal is to synthesize dextran-based macrostructures for combinatorial-designed tumor-targeted nanoparticle formulation for gene silencing and drug delivery; “hits” will be evaluated *in vivo* in resistant cancer models.

FJH CoInvestigator (9/1/10 – 8/31/12)

Internal Funding: MGH Radiation Oncology: spine/skull base chordoma study

To evaluate the further role of proton radiation in the management of axial chordomas whether being treated with radiation alone or the combination of radiation and surgery.

### **Current: Including costs**

2010-2015 U01 grant #217408 (with Northeastern University)

Title: Nanoparticles to Reverse Drug Resistance

Direct \$482K

PI Mansoor Northeastern

Co-PI Zhenfeng Duan, MD, PhD MGH

Co-PI FJH

2011-2016 P50 grant #219678

PI- Ralph Weissleder, MD, PhD

Project 6: Developmental Project 2

NIH-NCI

Direct 35K

2012-2017 U54 grant # 222381

Sarcoma SPORE grant

13 million/5 years

PI: Raphael Pollack, MD, PhD

Co-Leader of Developmental Research Projects (DRP) sections: Francis J. Hornicek, MD, PhD MGH and Paul Meltzer, MD, PhD (NCI)

Multi-institutional grant: first SPORE to involve part of NIH

MD Anderson, DFCI, BWH, MGH, University Michigan, Columbia University

## Current Unfunded Projects

1996 - present      Development and characterization of chemotherapeutic drug resistant cell lines

1996 - present      Development and characterization of sarcoma cell lines  
Deliver cell lines to Daniel Haber, MD, PhD (formerly Jeff Settleman, PhD)  
*In vitro* drug sensitivity testing

1994 - present      Allograft outcome studies:  
    a. Temporal relations of massive allograft incorporation and alterations of allografts to enhance vascularization  
    b. Augmentation of host-allograft intercalary junctions with bone substitutes

2012 - present      Development of novel therapeutic strategies in the treatment of chordoma, Applied for funding by PI: Edwin Choy (NIH)

## Report of Local Teaching and Training

### Teaching of Students in Courses

#### Local

1982-1983	Biophysics Undergraduate/Graduate students (4 students)	Georgetown University one course
1983-1987	Flow cytometric analysis Bioengineering students (6 students)	University of Miami one course
1997-1998	Allograft management Physical Therapists (35 therapists)	University of Miami Biannual one course
1997-1998	Fundamentals of Orthopaedics Medical students (2 per rotation)	University of Miami 8 weeks one course
1998, 1999, 2000	CPC NEJM discussor	Harvard Medical School : 2 cases
1999	AMIL Brazil CME lecturer students	Harvard Medical School: one class
2000	Gynecology-Oncology lecturer	Harvard Medical School: one lecture
2003-present	HMS Orthopaedic Core Clerkship HMS students	Harvard Medical School weekly rotations during clinical clerkships

#### Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs)

1997-1998	Basic science and pathology Orthopaedic Surgery Residency (24 residents)	University of Miami one evening/month
1997-1998	Extremity anatomy Orthopaedic Surgery Residency (24 residents)	University of Miami 2-3 hours/week for 2 months
1997-1998	Research rotation Orthopaedic Surgery Residency (24 residents)	University of Miami 8 hours/month
1997-1998	Musculoskeletal oncology rotation Orthopaedic Surgery Residency (24 residents)	University of Miami Daily for 2 residents
1996-1998	Bone physiology General Surgery Residency (30 residents)	Mt. Sinai Hospital yearly one course

#### Clinical Supervisory and Training Responsibilities

1998-present	Combined Harvard Orthopaedic Residency	Daily for 2 per rotation
1998-present	Massachusetts General Hospital Orthopaedic Oncology Fellowship	2-3 fellows: 1 per rotation

## Formally Supervised Trainees

1998-1999 Joel Sorger, MD; Assistant Professor at University of Cincinnati, Cincinnati, OH  
Director, Division of Musculoskeletal Tumor Center and Pediatric Joint Replacement  
Surgery, Division of Pediatric Surgery

1. Mierzwa ML, McCluskey CM, Barrett WL, Lowy A, Sussman J, **Sorger J**. Interstitial brachytherapy for soft tissue sarcoma: A single institution experience. *Brachytherapy*. 2007 Oct-Dec;6(4):298-303.
2. Mutema GK, **Sorger J**. Intraosseous schwannoma of the humerus. *Skeletal Radiol*. 2002 Jul;31(7):419-21.
3. **Sorger JI**, Kirk PG, Ruhnke CJ, Bjornson SH, Levy MS, Cockrin J, Tang P. Once daily, high dose versus divided, low dose gentamicin for open fractures. *Clin Orthop Relat Res*. 1999 Sep;(366):197-204.
4. **Sorger JI**, Federle D, Kirk PG, Grood E, Cochran J, Levy M. The posterior cruciate ligament in total knee arthroplasty. *J Arthroplasty*. 1997 Dec;12(8):869-79.
5. Kirk PG, **Sorger J**. Failure of an implant after total shoulder arthroplasty. A case report. *J Bone Joint Surg Am*. 1997 Apr;79(4):597-8.
6. Hornicek FJ, Gebhardt MC, Tomford WW, **Sorger JI**, Zavatta M, Menzner JP, Mankin HJ. Factors affecting nonunion of the allograft-host junction. *Clin Orthop Relat Res*. 2001 Jan;(382):87-98.
7. **Sorger JI**, Hornicek FJ, Zavatta M, Menzner JP, Gebhardt MC, Tomford WW, Mankin HJ. Allograft fractures revisited. *Clin Orthop Relat Res*. 2001 Jan;(382):66-74.

1998-1999 Jeffry Menzner, MD; Orthopaedic Oncology and General Orthopaedic Surgery;  
Boise, Idaho  
Private Practice: 1075 N Curtis Road # 300  
Boise, ID 83706-1348 ; (208) 323-2600

1. Hornicek FJ, Gebhardt MC, Tomford WW, **Sorger JI**, Zavatta M, Menzner JP, Mankin HJ. Factors affecting nonunion of the allograft-host junction. *Clin Orthop Relat Res*. 2001 Jan;(382):87-98.
2. **Sorger JI**, Hornicek FJ, Zavatta M, Menzner JP, Gebhardt MC, Tomford WW, Mankin HJ. Allograft fractures revisited. *Clin Orthop Relat Res*. 2001 Jan;(382):66-74.

- 1999-2000 Sam Sami, MD; Orthopaedic Oncology Practice, Tehran, Iran
1. **Sami S**, Liu G, Mithoefer K, Suri M, Mankin HJ. Pigmented villonodular synovitis of the anserine bursa. *Orthopedics*. 2003 Jun;26(6):651-2.
  2. **Sami S**, Liu G, Hornicek F, Cates JM, Mankin HJ. Membranous lipodystrophy. A case report. *J Bone Joint Surg Am*. 2002 Apr;84-A(4):630-3.
- 1999-2000 Rakesh Donthineni-Rao, MD; Assistant Professor at University of Pennsylvania 2000-2006; Fellowship Rizzoli Institute, Bologna, Italy 2007-2008; Orthopaedic Oncology Private Practice, Sacramento CA 2009 – to present
1. **Donthineni R**, Ofluoglu O. Preface: the management of spine tumors. *Orthop Clin North Am*. 2009 Jan;40(1):xi.
  2. Gasbarrini A, **Donthineni R**, Cappuccio M, Boriani S. Distal humeral reconstruction with osteoarticular allograft: a case report and review of the literature. *J Shoulder Elbow Surg*. 2008 Nov-Dec;17(6):e1-4. Epub 2008 Jun 30. R
  3. **Donthineni R**, Boriani L, Ofluoglu O, Bandiera S. Metastatic behaviour of giant cell tumour of the spine. *Int Orthop*. 2009 Apr;33(2):497-501.
  4. Jamali AA, Lee MA, **Donthineni R**, Meehan JP. Minimally invasive management of a floating prosthesis injury with locking plates. *J Arthroplasty*. 2007 Sep;22(6):928-33.
  5. Ofluoglu O, **Donthineni R**. Iatrogenic seeding of a giant cell tumor of the patella to the proximal tibia. *Clin Orthop Relat Res*. 2007 Dec;465:260-4.
  6. Cullen AB, Ofluoglu O, **Donthineni R**. Neuropathic arthropathy of the shoulder (Charcot shoulder). *MedGenMed*. 2005 Feb 3;7(1):29.
  7. Khan SN, **Donthineni R**. Surgical management of metastatic spine tumors. *Orthop Clin North Am*. 2006 Jan;37(1):99-104.
  8. Ofluoglu O, Yasmin D, **Donthineni R**, Yildiz M. Superior dislocation of the patella with early onset patellofemoral arthritis: a case report and literature review. *Knee Surg Sports Traumatol Arthrosc*. 2006 Apr;14(4):350-5.
  9. Hosalkar HS, Henderson KM, Weiss A, **Donthineni R**, Lackman RD. Chemotherapy for bone sarcoma does not affect fertility rates or childbirth. *Clin Orthop Relat Res*. 2004 Nov;(428):256-60. Erratum in: *Clin Orthop*. 2004 Dec;(429):352.



10. Hanna BG, **Donthineni** R, Majid K, Parekh S, Shin JS, Lackman RD. Leg mass in a 61-year-old man. *Clin Orthop Relat Res.* 2003 Jan;(406):298-307.
11. Boriani S, Bandiera S, Casadei R, Boriani L, **Donthineni** R, Gasbarrini A, Pignotti E, Biagini R, Schwab JH. Giant cell tumor of the mobile spine: a review of 49 cases. *Spine* 2012 Jan 1;37(1):E37-45
12. Agrawal AK, Kammen BF, Guo H, **Donthineni** R. An Unusual Presentation of Subcutaneous Granuloma Annulare in Association with Juvenile-Onset Diabetes: Case Report and Literature Review. *Pediatr Dermatol.* 2011 Nov 16. doi: 10.1111/j.1525-1470.2011.
13. Ofluoglu O, Boriani S, Gasbarrini A, De Iure F, **Donthineni** R. Diagnosis and planning in the management of musculoskeletal tumors: surgical perspective. *Semin Intervent Radiol.* 2010 Jun;27(2):185-90.
- 14. Donthineni** R, Ofluoglu O. Solitary enchondromas of long bones: pattern of referral and outcome. *Acta Orthop Traumatol Turc.* 2010;44(5):397-402. doi: 10.3944/AOTT.2010.2121.
15. Cappuccio M, Gasbarrini A, **Donthineni** R, Beisse R, Boriani S. Thoracoscopic assisted en bloc resection of a spine tumor. *Eur Spine J.* 2011 Jul;20 Suppl 2:S202-5. Epub 2010 Aug 9.
16. Boriani S, Bandiera S, **Donthineni** R, Amendola L, Cappuccio M, De Iure F, Gasbarrini A. Morbidity of en bloc resections in the spine. *Eur Spine J.* 2010 Feb;19(2):231-41. Epub 2009 Aug 19
17. De Iure F, **Donthineni** R, Boriani S. Outcomes of C1 and C2 posterior screw fixation for upper cervical spine fusion. *Eur Spine J.* 2009 Jun;18 Suppl 1:2-6. Epub 2009 Apr 23.
- 18. Donthineni** R, Ofluoglu O. Spine oncology: Daedalus, Theseus, and the Minotaur. *Orthop Clin North Am.* 2009 Jan;40(1):169-71, viii.
19. Bandiera S, Boriani S, **Donthineni** R, Amendola L, Cappuccio M, Gasbarrini A. Complications of en bloc resections in the spine. *Orthop Clin North Am.* 2009 Jan;40(1):125-31, vii.
20. Gasbarrini A, Cappuccio M, **Donthineni** R, Bandiera S, Boriani S. Management of benign tumors of the mobile spine. *Orthop Clin North Am.* 2009 Jan;40(1):9-19.

21. **Donthineni** R. Diagnosis and staging of spine tumors. *Orthop Clin North Am.* 2009 Jan;40(1):1-7.
22. Sodha S, Nagda S, Lackman RD, **Donthineni** R. Gamma probe assisted biopsy of suspected metastatic rib lesions. *Clin Orthop Relat Res.* 2004 May;(422):186-9.
23. Hanna BG, **Donthineni** R, Dalinka MK, Lackman RD. Painful ankle in a 19-year-old man. *Clin Orthop Relat Res.* 2003 Oct;(415):329-37.

2000-2001 Edward Fox, MD, Assistant Professor at University of Rochester 2001-2003; Assistant Professor at University of Pennsylvania 2003-2006; Assistant Professor Hershey Medical Center 2007 – present.  
 Penn State Hershey Bone/Joint  
 30 Hope Drive Suite 2400 Building B  
 Hershey, PA 17033

1. Roopnariane A, Freed RJ, Price S, **Fox EJ**, Ritty TM. Osteosarcoma in a Marfan patient with a novel premature termination codon in the FBN1 gene. *Connect Tissue Res.* 2011 Apr;52(2):157-65. Epub 2010 Jul 30.
2. Finstein JL, **Fox EJ**, Chin K, Alvandi F. Abdominal pain in a 71-year-old woman. *Clin Orthop Relat Res.* 2006 Dec;453:341-7. No abstract available.
3. Torbert JT, **Fox EJ**, Hosalkar HS, Ogilvie CM, Lackman RD. Endoprosthetic reconstructions: results of long-term followup of 139 patients. *Clin Orthop Relat Res.* 2005 Sep;438:51-9.
4. Rosier RN, O'Keefe RJ, Teot LA, **Fox EJ**, Nester TA, Puzas JE, Reynolds PR, Hicks DG. P-glycoprotein expression in cartilaginous tumors. *J Surg Oncol.* 1997 Jun;65(2):95-105.

2000-2001

Brian Brigman, MD; Associate Professor of Orthopaedic Surgery, Duke University  
(Working together on molecular imaging with Lumicell and applying for NIH funding)

1. Gaskill T, Payne D, **Brigman B**. Cryptococcal abscess imitating a soft-tissue sarcoma in an immunocompetent host: a case report. *J Bone Joint Surg Am*. 2010 Aug 4;92(9):1890-3.
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6. Lang JE, Dodd L, Martinez S, **Brigman BE**. Case reports: acral myxoinflammatory fibroblastic sarcoma: a report of five cases and literature review. *Clin Orthop Relat Res*. 2006 Apr;445:254-60. Review.
7. Carothers JT, **Brigman BE**, Lawson RD, Rizzo M. Stacking of a dermal regeneration template for reconstruction of a soft-tissue defect after tumor excision from the palm of the hand: a case report. *J Hand Surg Am*. 2005 Nov;30(6):1322-6.
8. **Brigman BE**, Hornicek FJ, Gebhardt MC, Mankin HJ. Allografts about the Knee in Young Patients with High-Grade Sarcoma. *Clin Orthop Relat Res*. 2004 Apr;(421):232-9.
9. Dodd LG, Major N, **Brigman B**. Malignant giant cell tumor of soft parts. *Skeletal Radiol*. 2004 May;33(5):295-9. Epub 2004 Mar 3.
10. **Brigman BE**, Kumagai SG, McGuire MH. Rotationplasty after failed limb-sparing tumor surgery: a report of two cases. *Clin Orthop Relat Res*. 2003 Oct;(415):254-60

2001-2002

Eric Zeegen, MD, Fellowship in Arthroplasty at Baptist Hospital, Boston, MA 2002 – 2003; Assistant Professor at UCLA Medical Center, Los Angeles, CA 2003-2004; private practice in Los Angeles, CA 2004 – present.

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1. Mankin HJ, Casas-Ganem J, Kim JI, Gebhardt MC, Hornicek FJ, **Zeegen EN**.

Leiomyosarcoma of somatic soft tissues. Clin Orthop Relat Res. 2004 Apr;(421):225-31.

2. **Zeegen EN**, Aponte-Tinao LA, Hornicek FJ, Gebhardt MC, Mankin HJ. Survivorship analysis of 141 modular metallic endoprostheses at early followup. Clin Orthop Relat Res. 2004 Mar;(420):239-50.

3. Bierbaum BE, **Zeegen EN**, Dayton MR. Hydroxyapatite coating on the femoral stem in primary total hip arthroplasty. Orthopedics. 2003 Sep;26(9):913-4.

4. Kuhns CA, **Zeegen EN**, Kono M, Green T, Moseley CF, Otsuka NY. Growth rates in skeletally immature feet after triple arthrodesis. J Pediatr Orthop. 2003 Jul-Aug;23(4):488-92.

2002-2003 Yasser Farid, MD, Orthopaedic Oncology Practice, Cairo, Egypt, 2003-2007; Fellowship in Spine Surgery; Albany New York 2007-2008; Private Practice in Chicago 2009 – present  
Bone and Joint Replacement Center  
4646 North Marine Drive Suite 8C  
Chicago, IL 60640

1. Kotwal SY, **Farid YR**, Patil SS, Alden KJ, Finn HA. Intramedullary rod and cement static spacer construct in chronically infected total knee arthroplasty. J Arthroplasty. 2012 Feb;27(2):253-259.e4. Epub 2011 Jul 23.

2. **Farid YR**. Cerclage wire-plate composite for fixation of quadrilateral plate fractures of the acetabulum: a checkrein and pulley technique. J Orthop Trauma. 2010 May;24(5):323-8.

3. **Farid YR**. Decancellation sacral osteotomy in iliosacral tumor resection: a technique for precise sacral margins. Clin Orthop Relat Res. 2010 May;468(5):1362-72. Epub 2009 Aug 19.

4. **Farid YR**. The subinguinal retroperitoneal approach for fractures of the acetabulum: a modified ilioinguinal approach. J Orthop Trauma. 2008 Apr;22(4):270-5.

2002-2003

Kevin Raskin, MD, Instructor of Orthopaedic Surgery, Massachusetts General Hospital, Boston, MA. New fellowship director for musculoskeletal oncology program.

1. Schoenfeld AJ, Hornicek FJ, Pedlow FX, Kobayashi W, **Raskin KA**, Springfield D, Delaney TF, Nielsen GP, Mankin HJ, Schwab JH. Chondrosarcoma of the mobile spine: a review of 21 cases treated at a single center. *Spine*. 2012 Jan 15;37(2):119-26.
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3. Ciernik IF, Niemierko A, Harmon DC, Kobayashi W, Chen YL, Yock TI, Ebb DH, Choy E, **Raskin KA**, Liebsch N, Hornicek FJ, Delaney TF. Proton-based radiotherapy for unresectable or incompletely resected osteosarcoma. *Cancer*. 2011 Oct 1;117(19):4522-30. doi: 10.1002/cncr.26037. Epub 2011 Mar 29.
4. Devisetty K, Kobayashi W, Suit HD, Goldberg SI, Niemierko A, Chen YL, **Raskin KA**, Schwab JH, Springfield DS, Yoon SS, Hornicek FJ, DeLaney TF. Low-dose neoadjuvant external beam radiation therapy for soft tissue sarcoma. *Int J Radiat Oncol Biol Phys*. 2011 Jul 1;80(3):779-86. Epub 2010 Sep 23.
5. Tejwani A, Kobayashi W, Chen YL, Rosenberg AE, Yoon S, **Raskin KA**, Rosenthal DI, Nielsen GP, Hornicek FJ, Delaney TF. Management of acral myxoinflammatory fibroblastic sarcoma. *Cancer*. 2010 Dec 15;116(24):5733-9. doi: 10.1002/cncr.25567. Epub 2010 Aug 24.
6. Kumar NL, Rosenberg AE, **Raskin KA**. Osteoblastoma-like Osteosarcoma of the Cuboid: A Case Report. *J Orthop Surg Res*. 2010 Aug 6;5:52.
7. Quaye AA, **Raskin KA**, Ecker JL, Leffert LR. Management of a parturient with high-grade osteosarcoma of the proximal femur: a multidisciplinary approach. *Int J Obstet Anesth*. 2010 Jul;19(3):340-2.
8. Schoenfeld AJ, Koplun SA, Garcia R, Hornicek FJ, Mankin HJ, **Raskin KA**, Springfield D, Rosenberg AE, Schwab JH. Monostotic fibrous dysplasia of the spine: a report of seven cases. *J Bone Joint Surg Am*. 2010 Apr;92(4):984-8.
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12. Allograft reconstruction in malignant bone tumors: indications and limits. **Raskin KA**, Hornicek F. *Recent Results Cancer Res*. 2009;179:51-8. Review.
13. Treatment of metastatic carcinoma to the hip with CT-guided percutaneous acetabuloplasty: report of four cases. Sapkota BH, Hirsch AE, Yoo AJ, Hornicek FJ, **Raskin KA**, Rosenthal DI, Growney ML, Hirsch JA. *J Vasc Interv Radiol*. 2009 Apr;20(4):548-52. Epub 2008 Dec 27.
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15. Phase II study of high-dose photon/proton radiotherapy in the management of spine sarcomas. DeLaney TF, Liebsch NJ, Pedlow FX, Adams J, Dean S, Yeap BY, McManus P, Rosenberg AE, Nielsen GP, Harmon DC, Spiro IJ, **Raskin KA**, Suit HD, Yoon SS, Hornicek FJ. *Int J Radiat Oncol Biol Phys*. 2009 Jul 1;74(3):732-9. Epub 2008 Dec 25.
16. Recurrent intravascular papillary endothelial hyperplasia of the right middle finger treated with radiation therapy. Anthony SG, Mudgal CS, DeLaney TF, Shin RD, **Raskin KA**, Ring DC. *J Bone Joint Surg Br*. 2008 Jan;90(1):95-7.
17. Treatment of proximal humeral chondrosarcoma with resection and allograft. Mourikis A, Mankin HJ, Hornicek FJ, **Raskin KA**. *J Shoulder Elbow Surg*. 2007 Sep-Oct;16(5):519-24. Epub 2007 May 22.
18. Soft tissue sarcoma resection volume associated with wound-healing complications. Geller DS, Hornicek FJ, Mankin HJ, **Raskin KA**. *Clin Orthop Relat Res*. 2007 Jun;459:182-5.
19. Radiation therapy for control of soft-tissue sarcomas resected with positive margins. Delaney TF, Kepka L, Goldberg SI, Hornicek FJ, Gebhardt MC, Yoon SS, Springfield DS, **Raskin KA**, Harmon DC, Kirsch DG, Mankin HJ, Rosenberg AE, Nielsen GP, Suit HD. *Int J Radiat Oncol Biol Phys*. 2007 Apr 1;67(5):1460-9.
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21. Use of an arterial tourniquet to achieve complete radiofrequency ablation of a renal metastasis. Campbell J, Rosenthal DI, **Raskin KA**, Hornicek FJ, Michaelson MD. *J Vasc Interv Radiol*. 2006 Jun;17(6):1051-5.

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23. Infection in massive bone allografts. Mankin HJ, Hornicek FJ, **Raskin KA**. *Clin Orthop Relat Res*. 2005 Mar;(432):210-6.

2003-2004

Megan Anderson, MD, BIDMC  
Instructor of Orthopaedic Surgery Harvard Medical School  
Clinical Practice: BIDMC and Boston Children's Hospital  
Dr. Anderson joined Harvard Medical School faculty and as a member of our Musculoskeletal Oncology Fellowship program

1. Computed tomography-based structural analysis for predicting fracture risk in children with benign skeletal neoplasms: comparison of specificity with that of plain radiographs. Leong NL, **Anderson ME**, Gebhardt MC, Snyder BD. *J Bone Joint Surg Am*. 2010 Aug 4;92(9):1827-33.

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3. Alveolar soft part sarcoma: a rare and enigmatic entity. **Anderson ME**, Hornicek FJ, Gebhardt MC, Raskin KA, Mankin HJ. *Clin Orthop Relat Res*. 2005 Sep;438:144-8.

4. Abductor reattachment with a custom proximal femoral replacement prosthesis. **Anderson ME**, Hyodo A, Zehr RJ, Marks KE, Muschler GF. *Orthopedics*. 2002 Jul;25(7):722-6. No abstract available.

2003-2004

Michael J. Harris, MD, private practice California  
Marina Del Rey , CA

1. Delaney TF, **Harris MJ**, Hornicek FJ, McClain RF: Photon and Proton Beam Radiotherapy in the Treatment of Spine Tumors. In: *Cancer in the Spine* (eds McClain RF, Markman M, Bukowski RM, Benzel EC. 2006, pp 211-218.
2. Mankin HJ, Hornicek FJ, **Harris M**: Total femur replacement procedures in tumor treatment. *Clin. Ortho. Rel. Res*. 438: 60-64, 2005.

- 2004-2005 Peter Buecker, MD, Assistant Professor, University of Kentucky, Louisville Oncology  
Old Brownsboro Crossing, 4950 Norton Healthcare Boulevard 300, Louisville, KY 40241
1. Burke CS, Gupta A, **Buecker P**. Distal ulna giant cell tumor resection with reconstruction using distal ulna prosthesis and brachioradialis wrap soft tissue stabilization..Hand (N Y). 2009 ;4(4):410-4. Epub 2009 Apr 16.
  2. Baker AC, Rezeanu L, Klein MJ, Pitt MJ, **Buecker P**, Hersh JH, Buchino JJ, Siegal GP. Aggressive osteoblastoma: a case report involving a unique chromosomal aberration. Int J Surg Pathol. 2010 Jun;18(3):219-24.
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  5. **Buecker PJ**, Villafuerte JE, Hornicek FJ, Gebhardt MC, Mankin HJ.Improved survival for sarcomas of the wrist and hand. J Hand Surg Am. 2006 ;31(3):452-5.
- 2004-2005 Anatosia Mourikis, MD, Orthopaedic Surgery Practice in Athens Greece 2005 – present
1. **Mourikis A**, Rebello G, Villafuerte J, Moneim M, Omer GE Jr, Veitch J. Radiocarpal dislocations: review of the literature with case presentations and a proposed treatment algorithm. Orthopedics. 2008 ;31(4):386-92; quiz 393-4. Review. No abstract available.
  2. **Mourikis A**, Mankin HJ, Hornicek FJ, Raskin KA. Treatment of proximal humeral chondrosarcoma with resection and allograft. J Shoulder Elbow Surg. 2007 ;16(5):519-24. Epub 2007 May 22.
  3. Lersundi A, Mankin HJ, **Mourikis A**, Hornicek FJ.Chondromyxoid fibroma: a rarely encountered and puzzling tumor. Clin Orthop Relat Res. 2005 ;439:171-5.



- 2004-2005 Jorge Villafuente, MD, Assistant Professor of Orthopaedic Surgery at Boston University, Veterans Administration Hospital, Boston, MA
1. Mourikis A, Rebello G, **Villafuente J**, Moneim M, Omer GE Jr, Veitch J. Radiocarpal dislocations: review of the literature with case presentations and a proposed treatment algorithm. *Orthopedics*. 2008 ;31(4):386-92; quiz 393-4. Review. No abstract available.
  2. Buecker PJ, **Villafuente JE**, Hornicek FJ, Gebhardt MC, Mankin HJ. Improved survival for sarcomas of the wrist and hand. *J Hand Surg Am*. 2006;31(3):452-5.
  3. Mankin HJ, Hornicek FJ, Ortiz-Cruz E, **Villafuente J**, Gebhardt MC. Aneurysmal bone cyst: a review of 150 patients. *J Clin Oncol*. 2005;23(27):6756-62. Review.
  4. Ali AM, **Villafuente J**, Hashmi M, Saleh M. Judet's quadricepsplasty, surgical technique, and results in limb reconstruction. *Clin Orthop Relat Res*. 2003;(415):214-20.
- 2005-2006 John Abraham, MD,
1. Instructor of Orthopaedic Surgery Harvard Medical School and BWH
  2. Assistant Professor Temple University Philadelphia, PA
1. Elco CP, Mariño-Enríquez A, **Abraham JA**, Dal Cin P, Hornick JL. Hybrid myxoinflammatory fibroblastic sarcoma/hemosiderotic fibrolipomatous tumor: report of a case providing further evidence for a pathogenetic link. *Am J Surg Pathol*. 2010 ;34(11):1723-7.
  2. **Abraham JA**, Baldini EH, Butrynski JE. Management of adult soft-tissue sarcoma of the extremities and trunk. *Expert Rev Anticancer Ther*. 2010 ;10(2):233-48.
  3. Kaufman AM, **Abraham JA**, Kattapuram SV, Hornicek FJ. Orthopaedic . radiology . pathology conference: Chronic multifocal chest and leg pain in a 34-year-old woman. *Clin Orthop Relat Res*. 2009;467(4):1112-7.
  4. **Abraham JA**, Hornicek FJ, Kaufman AM, Harmon DC, Springfield DS, Raskin KA, Mankin HJ, Kirsch DG, Rosenberg AE, Nielsen GP, Deshpande V, Suit HD, DeLaney TF, Yoon SS. Treatment and outcome of 82 patients with angiosarcoma. *Ann Surg Oncol*. 2007;14(6):1953-67.

- 2005-2006 David Geller, MD, Assistant Professor of Orthopaedic Surgery, Albert Einstein, NY
1. **Geller DS**, Gorlick R. Osteosarcoma: a review of diagnosis, management, and treatment strategies. *Clin Adv Hematol Oncol*. 2010;8(10):705-18. Review.
  2. **Geller DS**, Gorlick R. HER-2 targeted treatment of osteosarcoma: the challenges of developing targeted therapy and prognostic factors for rare malignancies. *Expert Opin Pharmacother*. 2010;11(1):51-61. Review.
  3. Chou AJ, **Geller DS**, Gorlick R. Therapy for osteosarcoma: where do we go from here? *Paediatr Drugs*. 2008;10(5):315-27. Review.
  4. Sah AP, **Geller DS**, Mankin HJ, Rosenberg AE, Delaney TF, Wright CD, Hornicek FJ. Malignant transformation of synovial chondromatosis of the shoulder to chondrosarcoma. A case report. *J Bone Joint Surg Am*. 2007;89(6):1321-8. No
  5. **Geller DS**, Hornicek FJ, Mankin HJ, Raskin KA. Soft tissue sarcoma resection volume associated with wound-healing complications. *Clin Orthop Relat Res*. 2007;459:182-5
- 2006-2007 Chigusa Sawamura, MD, MPH
- a. Harvard School Public Health, Boston, MA
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1. **Sawamura C**, Springfield DS, Marcus KJ, Perez-Atayde AR, Gebhardt MC. Factors predicting local recurrence, metastasis, and survival in pediatric soft tissue sarcoma in extremities. *Clin Orthop Relat Res*. 2010;468(11):3019-27.
  2. **Sawamura C**, Hornicek FJ, Gebhardt MC. Complications and risk factors for failure of rotationplasty: review of 25 patients. *Clin Orthop Relat Res*. 2008;466(6):1302-8.
  3. **Sawamura C**, Matsumoto S, Shimoji T, Tanizawa T, Ae K. *Clin Orthop Relat Res*. 2011 Aug 9. Epub. What Are Risk Factors for Local Recurrence of Deep High-grade Soft-tissue Sarcomas?
- 2006-2007 Thomas Bowen, MD, Geisinger Medical Center, PA
- Pinto A, Tallini G, Novak RW, **Bowen T**, Parham DM. Undifferentiated rhabdomyosarcoma with lymphoid phenotype expression. *Med Pediatr Oncol*. 1997;28(3):165-70

2006-2007

Gleeson Rebello, MD Instructor of Orthopaedic Surgery Harvard Medical School and MGH; MGH Pediatric Orthopaedics

1. Grottkau BE, **Rebello G**, Merlin G, Winograd JM. Coaptive film versus subcuticular suture: comparing skin closure time after posterior spinal instrumented fusion in pediatric patients with spinal deformity. *Spine (Phila Pa 1976)*. 2010;35(23):2027-9.
2. **Rebello G**, Parikh R, Grottkau B Coaptive film versus subcuticular suture: comparing skin closure time following identical, single-session, bilateral limb surgery in children. *J Pediatr Orthop*. 2009;29(6):626-8.
3. **Rebello G**, Zilkens C, Dudda M, Matheney T, Kim YJ Triple pelvic osteotomy in complex hip dysplasia seen in neuromuscular and teratologic conditions. *J Pediatr Orthop*. 2009;29(6):527-34.
4. Hart ES, Metkar US, **Rebello GN**, Grottkau BE. Femoroacetabular impingement in adolescents and young adults. *Orthop Nurs*. 2009;117-24; quiz 125-6.
5. Kleinman PK, Sarwar ZU, Newton AW, Perez-Rossello JM, **Rebello G**, Herliczek TW. Metaphyseal fragmentation with physiologic bowing: a finding not to be confused with the classic metaphyseal lesion. *AJR Am J Roentgenol*. 2009;192(5):1266-8.
6. **Rebello G**, Spencer S, Millis MB, Kim YJ. Surgical dislocation in the management of pediatric and adolescent hip deformity. *Clin Orthop Relat Res*. 2009;467(3):724-31.
7. Mourikis A, **Rebello G**, Villafuerte J, Moneim M, Omer GE Jr, Veitch J. Radiocarpal dislocations: review of the literature with case presentations and a proposed treatment algorithm. *Orthopedics*. 2008;31(4):386-92; quiz 393-4. Review.
8. Verghese R, Shah H, **Rebello G**, Joseph B. Pre-axial mirror polydactyly associated with tibial deficiency: a study of the patterns of skeletal anomalies of the foot and leg. *J Child Orthop*. 2007;1(1):49-54.
9. Hart ES, Grottkau BE, **Rebello GN**, Albright MB. Broken bones: common pediatric upper extremity fractures--part II. *Orthop Nurs*. 2006;25(5):311-23; quiz 324-5.
10. Hart ES, Albright MB, **Rebello GN**, Grottkau BE. Broken bones: common pediatric fractures--part I. *Orthop Nurs*. 2006;25(4):251-6. Review.
11. The use of a working model for teaching functional and applied surgical anatomy of the subtalar joint. Joseph B, **Rebello G**, Mayya S. *Foot Ankle Int*. 2006;27(4):286-92.
12. Developmental dysplasia of the hip: nursing implications and anticipatory guidance for parents. Hart ES, Albright MB, **Rebello GN**, Grottkau BE. *Orthop Nurs*. 2006;25(2):100-9; quiz 110-1. Review.

2007-08 Ian Panuncialman, MD, 2008-2009 - Arthroplasty Fellowship MGH/BWH  
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1. Marchie A, **Panuncialman I**, McCarthy JC. Efficacy of hip arthroscopy in the management of synovial chondromatosis. *Am J Sports Med.* 2011;39 Suppl:126S-31S

2. Tompkins M, **Panuncialman I**, Lucas P, Palumbo M. Spinal epidural abscess. *J Emerg Med.* 2010;39(3):384-90.

3. Gobbi A, Tuy B, **Panuncialman I**. The incidence of motocross injuries: a 12-year investigation. *Knee Surg Sports Traumatol Arthrosc.* 2004;12(6):574-80. Epub 2004 May 5.

4. Gobbi A, Tuy B, Mahajan S, **Panuncialman I**. Quadrupled bone-semitendinosus anterior cruciate ligament reconstruction: a clinical investigation in a group of athletes. *Arthroscopy.* 2003;19(7):691-9.

5. Gobbi A, Mahajan S, Tuy B, **Panuncialman I**. Hamstring graft tibial fixation: biomechanical properties of different linkage systems. *Knee Surg Sports Traumatol Arthrosc.* 2002;10(6):330-4.

2007-08 Jeffrey Margolis, MD; Arthroplasty fellowship BWH 2008-2009; USC Adjunct Faculty California, 260 International Circle, San Jose, CA 95119

1. Resnick CM, **Margolis J**, Susarla SM, Schwab JH, Hornicek FJ, Dodson TB, Kaban LB. Maxillofacial and axial/appendicular giant cell lesions: unique tumors or variants of the same disease?--A comparison of phenotypic, clinical, and radiographic characteristics. *J Oral Maxillofac Surg.* 2010 Jan;68(1):130-7

2007-08 Felix Cheung, MD, Assistant Professor of Orthopaedic Surgery, West Virginia University, 2008 – present  
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- 2008-09 Jennifer Kreshak, MD; Fellowship in Orthopaedic Oncology; Rizzoli Institute, Bologna, Italy  
Private Practice, Valhalla, NY 10595
1. G Gamberi, S Cocchi, S Benini, G Magagnoli, L Morandi, **J Kreshak**, M Gambarotti, P Picci, L Zanella, M Alberghini. Molecular Diagnosis in Ewing Family Tumors: The Rizzoli Experience—222 Consecutive Cases in Four Years; *The Journal of Molecular Diagnostics* (Vol.13, Issue 3); *The Journal of Molecular Diagnostics* Volume 13, Issue 3 , Pages 313-324, May 2011
  2. N Vanel, V Vierling, **J Kreshak**, M Gambarotti, S Cocchi, C Tranfaglia and D Vanel Clinical Sarcoma Research 2011, 1:9 Vaginal metastasis of a Ewing sarcoma five years after resection of the primary tumor
- 2008-09 Nitin Kukkar, MD  
Southern Illinois University  
1250 Lincoln Drive, Carbondale, IL 62901  
Assistant Professor Orthopaedic Surgery
1. **N Kukkar**, D V. Amin, R Beck, N Bedi, P Freitag,. Cervicomedullary compression at the craniovertebral junction by clivus hyperplasia. Accepted at JBJS (A).
  2. **N Kukkar**, N Bedi and A Kanthala. Mayo International Spine Symposium 2010. Expert Review of Neurotherapeutics, May 2010, Vol. 10, No. 5, Pages 677-681.
  3. Goel, S. Yadav, U. Singh, **N. Kukkar**, S. Vishwajit. Role of Intra-Articular Hyaluronic Acid in Management of Periarthritis Shoulder: An Indian Experience. *Archives of Physical Medicine and Rehabilitation*, Volume 88, Issue 9, Pages E47-E47 N.
  4. Geller JA, **Kukkar N**, Fink LA, Macaulay WB Avoiding early complication after MOMHR: The technical and conceptual aspects of “Bailing-Out” to THA.. *Operative Techniques in Orthopaedics*, Volume 19, Issue 3, Pages 169- 175 (July 2009).
- 2008-09 Henock Wolde-Semait, MD,
1. Extended training at BIDMC and Boston Children’s Hospital
  2. Assistant Professor of Orthopaedic Surgery, University of Maryland  
Division Orthopaedics Greenebaum Cancer Center: Bone and Soft Tissue Oncology
1. Li CY, Schaffler MB, **Wolde-Semait HT**, Hernandez CJ, Jepsen KJ. *J Bone Miner Res.* 2005 Dec;20(12):2150-8. Genetic background influences cortical bone response to ovariectomy.

- 2009-10 Stephen Fern, Jr., MD  
Union Associates and Physicians  
1725 North 5th Street  
Terre Haute, IN 47804
- 2009-10 Marco Ferrone, MD, Instructor of Orthopaedic Surgery,  
Harvard Medical School and BWH,  
Clinical activities span Spine and Oncology  
  
Turcotte RE, **Ferrone M**, Isler MH, Wong C. Outcomes in patients with popliteal sarcomas. Can J Surg. 2009 Feb;52(1):51-5
- 2010-11 Vikrant Azad, MD  
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Fellow in Foot and Ankle Surgery
- 2010-11 Ranjit Varghese, MD  
Private Practice, Oasis Health Care  
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Gilette Children's Hospital  
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Neuromuscular Pediatric Spine Fellowship

- 2011-2012 Eric Henderson, MD  
Dartmouth University  
Faculty
1. **Henderson ER**, Groundland JS, Pala E, Dennis JA, Wooten R, Cheong D, Windhager R, Kotz RI, Mercuri M, Funovics PT, Hornicek FJ, Temple HT, Ruggieri P, Letson GD. Failure mode classification for tumor endoprostheses: retrospective review of five institutions and a literature review. *J Bone Joint Surg Am.* 2011;93(5):418-29
  2. Alexander GE, **Henderson ER**, Rodriguez AR, Bui MM, Cheong D, Letson GD. Extraskelatal myxoid chondrosarcoma: rare presentation in the knee joint space. *Orthopedics.* 2009 Dec;32(12):919.
  3. Marulanda GA, **Henderson ER**, Palumbo BT, Alexander GE, Cheong D, Letson GD. Use of extendable prostheses: a limb-salvaging alternative for patients with malignant bone tumors. *Expert Rev Med Devices.* 2008;5(4):467-74.
  4. **Henderson ER**, Feldman DS, Lusk C, van Bosse HJ, Sala D, Kummer FJ. Conformational instability of the taylor spatial frame: a case report and biomechanical study. *J Pediatr Orthop.* 2008 Jun;28(4):471-7.
- 2011-2012 Zachary Child, MD  
Spine Fellowship, University of Washington, Seattle, WA  
Assistant Professor, San Antonio, Texas
- 2012-2013 Matthew Colman, MD  
Spine Fellowship, Salt Lake City, Utah
- 2012-2014 Santiago Lozano-Calderon, MD  
Assistant in, Additional fellowship role: MGH/BIDMC/Boston Children's appointments  
Faculty, MGH Orthopaedic Oncology Service
- 2013-2014 Lisa Ercolano, MD  
Assistant Professor, Allegheny General Hospital, Pittsburgh, PA
- 2014-2015 Cyrus Abbaschian, MD  
Current Fellow
- 2014-2015 Mamum Al-Rashid, MD  
Current Fellow

## Laboratory Fellows

2004	Li Shao, PhD	Post-doc Research Fellow, China
2006	Hideo Morioka, MD, PhD	Assistant Professor, Japan
2007	Takeshi Morii, MD, PhD	Assistant Professor, Japan
2008	Cao Yang, MD, Ph.D	Associate Professor, China
2008	Keinosuke Ryu, MD	Post-doc Research Fellow, Japan
2009	Mitchi Susa, MD	Post-doc Research Fellow, Japan
2010	Xianzhe Liu, MD	Post-doc Research Fellow, China
2010	Yuqi Guo, MD	Post-doc Research Fellow, China
2010	Eisuke Kobayashi, MD,PhD	Post-doc Research Fellow, Japan
2011	Linlin Zhang, MD	Post-doc Research Fellow, China
2011	Shunan Ye, MD	Post-doc Research Fellow, China
2011-2013	Yang Pei, MD	Post-doc Research Fellow, China
2012-2014	Eiji Osaka, MD, PhD	Post-doc Research Fellow, Japan
2013 - present	Yang Xiaqian, MD	Post-doc Research Fellow, China
2013 - present	Feng Young, MD	Post-doc Research Fellow, China
2013 - present	Sun Xin, MD, PhD	Post-doc Research Fellow, China



## **Report of Regional, National and International Invited Teaching and Presentations**

### **Local Invited Presentations**

No presentations below were sponsored by outside entities

- 1996 Florida Orthopaedic Society  
Osteoarticular allograft reconstruction of the elbow  
Osteoarticular Allograft Reconstruction of Tibia  
Pathologic fractures
- 1997 – present Lecturer, The Boston Orthopaedic Pathology Course  
Staging of Musculoskeletal Tumors  
Introduction to Musculoskeletal Tumors  
Arthritides  
Chondrosarcoma  
Chordoma  
Malignant Fibrous lesions of Bone
- 1997, 1999 Lecturer, Newport Course: Basic Sciences Orthopaedics  
Stump the professor
- 1999, 2000 Primary Care Orthopaedics Course Lecturer  
2001 Lumps and bumps  
2003 Invited guest Professor, Brown University, RI  
Allograft reconstruction and complications  
2010 MGH Neurosurgery Grand Rounds  
Current Management of Chordoma  
2011 MGH Orthopaedic Grand Rounds  
Chordoma: Review and Update  
2011 MGH Pediatric ICU rounds  
Pediatric chordoma: ICU management  
2012 Spaulding Rehabilitation  
Chordoma Management

### **National**

- 1998 Invited Lecturer, Gaucher Disease Conference, Florida  
Features and management of bone disease
- 1998, 2002 Invited Lecturer, American Association of Tissue Banks  
Structural Allograft Use in Bone Tumor Surgery
- 1999 Invited Lecturer, MSTS Specialty Day AAOS, Florida
- 2000 Guest Lecturer, Johns Hopkins Medical Center, MD  
P-glycoprotein predictor of outcome in osteosarcoma
- 2001 Invited Lecturer, Gaucher Disease Conference, FL  
Bone disease in Gaucher disease

- 2008 Invited Lecturer, Johns Hopkins Medical Center, MD  
Chordoma management
- 2010 Invited Lecturer Musculoskeletal Tumor Society, Philadelphia, PA
- 2010 Invited Lecturer, Annual Meeting Musculoskeletal Tumor Society
- 2014 Visiting Professor, UCSF Neurosurgery Department, San Francisco, CA

**International**

- 1986 Visiting Professor, University of Padova, Padova, Italy  
Psoralens: Cross-linking of Erythrocyte Membrane Proteins
- 1987 Visiting Professor, Universite Pierre et Marie Curie, Paris, France  
Immunology/parathyroid cell cultures
- 2004 Invited Guest Professor, Madrid, Spain  
Allograft reconstruction  
Spine tumor management
- 2006 Invited Guest Professor, Madrid, Spain  
Allograft reconstruction  
Radiation adjuvant; spine tumor management
- 2007 AIMS Invited Lecturer, Musculoskeletal Oncology Course, New Delhi, India  
Introduction to molecular biology of bone tumors  
Surgical management of bone tumors  
Small round cell lesions  
Benign fibrous lesions  
Ewings and Osteosarcoma  
Management of bone cysts
- 2010 Invited Lecturer, The 43<sup>rd</sup> Annual Musculoskeletal Tumor Meeting of the Japanese Orthopaedic Association, Tokyo, Japan  
Chordoma
- 2010 Invited Lecturer, Chala Rosenfeld Lecture, SARC- CTOS 16<sup>th</sup> Annual Meeting, Paris, France
- 2010 San Juan – Boston Musculoskeletal Oncology Course, San Juan, PR  
4 lectures
- 2010 Union Hospital, Wuhan, China  
Management of chordomas
- 2010 Soel National University, Soel, South Korea  
Chordoma Multidisciplinary management
- 2011 Beijing  
MiRNA 199 predictor of outcome in osteosarcoma  
Radiation adjuvant in management of chordoma
- 2011 Invited Lecturer, The Japanese Orthopaedic Association, Tokyo, Japan  
Cancelled secondary Tsunami
- 2012 Invited Lecturer, The Japanese Orthopaedic Association, Tokyo, Japan  
Allograft Reconstruction of Bone Tumor Defects
- 2012 Invited Lecturer, Union Hospital, Wuhan, China  
Advance in Management of Osteosarcoma

- 2012 Invited Lecturer, Sixth Hospital Shanghai, Shanghai, China  
Osteosarcoma Management  
Reconstruction following Bone Tumor Resection  
Advances in Osteosarcoma Research
- 2012 Invited Lecturer, Zhenzhou Hospital, Zhenzhou, China  
Management of Osteosarcoma
- 2012 Invited Lecturer, International Association Pathologists, Cape Town, South Africa  
Interaction of Surgeon with Pathologist
- 2013 Invited Lecturer, International Society of Limb Salvage, Bologna, Italy  
Surgical Margins: Update
- 2013 Invited Lecturer, Chinese Musculoskeletal Tumor Society, Haifa, China  
Management of Sacral Tumors
- 2013 Visiting Professor, Military 301 Hospital, Beijing, China
- 2013 Invited Lecturer, Chinese Orthopaedic Association, Beijing, China  
Management of Spine Tumors
- 2013 Symposium: Update Musculoskeletal Tumors, Chinese Orthopaedic Association, Beijing, China: Allograft reconstruction
- 2014 4<sup>th</sup> Annual China Musculoskeletal Oncology Symposium: Pelvic and Sacral Surgical Methods, Beijing, China

## Report of Clinical Activities and Innovations

### Current Licensure and Certifi

1992	Diplomat, National Board of Medical Examiners
1995	State of Florida Physician License
1997	Commonwealth of Massachusetts Physician License
1999	Certified, American Board of Orthopaedic Surgery
2001	Fellow, American Academy of Orthopaedic Surgeons
2008	Recertified, American Board of Orthopaedic Surgery

### Practice Activities

#### Surgery and Outpatient Activities

##### MIAMI

1996	Member	South Florida Orthopaedic Oncology Group, Cedars Medical Center, Miami, FL, member
1997	Associate Director Administrative	South Florida Orthopaedic Oncology Group, Cedars Medical Center, Miami, FL,
1998	Member	Orthopaedic Surgery Committee, Cedars Medical Center, Miami, FL

##### MGH/HMS

1998-present	Orthopaedic Oncology Surgery	Massachusetts General Hospital, Beth Israel Deaconess Medical Center, Boston Children's Hospital, Boston, MA
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### Clinical Innovations

1. I have been active in clinical trials, in particular in phase I and II studies testing high-dose radiation therapy with combined photons/protons +/- surgery +/- chemotherapy for spine and pelvic sarcomas. This approach appears to be quite promising as documented in recently published manuscripts. We report one of the best rates of local recurrence for tumors in these challenging anatomic locations. Other clinicians and investigators have traveled around the world to learn our techniques and approaches.
2. I have contributed in the area of an innovative interdigitated chemoradiation schedule for soft tissue sarcomas and concurrent chemoradiation for bone sarcomas, piloted at the Massachusetts General Hospital and then studied by the Radiation Therapy Oncology Group as described in publications listed below. The initial trial results published were so promising to enlist others to enroll and publish a multi-institutional study confirming earlier results. We continue to pilot clinical trials and now are a part of SARC and the SPORE sarcoma grant.

## **Report of Technological and Other Scientific Innovations**

My colleagues and I have developed and employed novel intra-operative Dural plaque applicators for the treatment of spine sarcomas with involvement of the dura. In 2006 Memorial Sloan Kettering came to us to get this technology to further advance it at their institution (Drs. Bilsky and Yamada). This appears to be a promising technique (DeLaney TF, Chen GT, Mauceri TC, Munro JJ, Hornicek FJ, Pedlow FX, Suit HD. Intraoperative dural irradiation by customized Iridium-192 and Yttrium-90 brachytherapy plaques. *Int J Radiat Oncol Biol Phys.* 2003 ;57(1):239-45. A update of our experience has just been assembled: Yip D, DeLaney TF, Hornicek FJ, Mauceri TC, Jacobson A, Chen YL. Review of Experience and Outcome of Dural Plaque Brachytherapy from 2000-2013.

### **Patents**

1. **Duan Z**, Hornicek F. Identification small molecular compound NSC23925 to reverse multidrug resistance in human cancer (filed by MGH and patent issued # 8802702).  
**Currently being sold by Sigma Chemical Co.**
2. **Duan Z**, Hornicek F and Choy E. Identification of PITSLRE kinase as a potential therapeutic target for cancer treatment (filed by MGH and pending).  
**Compound being developed in conjunction with Nathaniel Gray, PhD, Dana Farber Cancer Institute**

## **Report of Education of Patients and Service to the Community**

### **Community Service Related to Professional Work:**

11/17/2006	Sarcoma Forum	Massachusetts General Hospital	Multi-specialty 3 hour informational session for sarcoma patients and their families
11/11/2007	Sarcoma Forum	Massachusetts General Hospital	Multi-specialty 3 hour informational session for sarcoma patients and their families.
11/22/2008	Sarcoma Forum	Massachusetts General Hospital	Multi-specialty 3 hour informational session for sarcoma patients and their families
3/24 /2009	Sarcoma Forum	Massachusetts General Hospital	Multi-specialty 3 hour informational session for sarcoma patients and their families
3/23/2010	Sarcoma Forum	Massachusetts General Hospital	Multi-specialty 3 hour informational session for sarcoma patients and their families

- 11/12/2013 Friends of Cancer Center MGH  
Modelling event for patients, physicians, and supporters of center
- 3/29/2014 Sarcoma Forum Massachusetts General Hospital  
Multi-specialty 3 hour informational session for sarcoma patients and their families

**Educational Material for Patients and the Lay Community**

NCCN bone cancer panel: Developed guidelines for bone sarcoma care

NCCN Chordoma panel: Leader of panel to develop guidelines for chordoma care

**Recognition**

- |              |   |  |
|--------------|---|--|
| 1979         | Who's Who in Colleges and Universities  | Washington & Jefferson College,<br>Washington, PA      |
| 1986         | Who's Who in Science and Engineering  | Society of Sigma Xi, University of Miami,<br>Miami, FL |
| 2007-present | Best Docs<br>Brian McGovern Award<br>100 Cancer Center Award: FJH<br>100 Cancer Center Award: Sarcoma<br>Group<br>100 Cancer Center Award: Chordoma<br>Center | Boston Magazine, Boston, MA                            |

## Report of Scholarship

### Peer reviewed publications in print or other media

#### Research investigations

1. Malinin GI, **Hornicek FJ**, Ebert PS: Comparative activation response of splenocytes oxidized by periodic acid and selenium dioxide. *Res. Commun. Chem. Path. Pharm.* 41:425-439, 1983.
2. Attallah AM, **Hornicek FJ**, Muller J, Noguchi P, Malinin GI: Interleukin 2 production induced by chemically defined cell membrane modification. *Int. Arch. Allergy Appl. Immunol.* 75:102-106, 1984.
3. **Hornicek FJ**, Malinin GI, Garcia JV, Attallah AM: Production and partial characterization of interleukin 2 induced by periodic acid oxidation of lymphocyte membranes. *Cell. Immunol.* 88:260-272, 1984.
4. **Hornicek FJ**, Malinin GI, Awret U, Nigra TP, Glew WB: Photochemical crosslinking of erythrocyte ghost proteins in the presence of 8-methoxy and trimethyl psoralens. *Photobiochem. Photobiophysics* 9:263-269, 1985.
5. **Hornicek FJ**, Malinin GI, Gratzner HG, Malinin TI: The interaction of bisulfite and its free radical analog - nitroxyl disulfonate with periodic acid-oxidized lymphocytes and their effect on blastogenesis. *Chem.-Biol. Interactions* 55:289-302, 1985.
6. **Hornicek FJ**, Danowski TS, Robinson SM, Sweeney KT, Malinin GI: Serum calcitonin in thyroid disorders and in pheochromocytoma kindred. *Annals Clinical Lab. Sci.* 16:103-107, 1986.
7. Jin S, **Hornicek FJ**, Neylan D, Zakarija M, McKenzie JM: Evidence that adenosine 3',5'-monophosphate mediates stimulation of thyroid growth in FRTL5 cells. *Endocrinology* 119:802-810, 1986.
8. Malinin GI, Garcia JV, **Hornicek FJ**, Glew WB, Nigra TP: Selective affinity of 8-methoxypsoralen for erythrocyte ghost proteins during UV-A irradiation. *Photobiochem. Photobiophysics* 12:283-288, 1986.
9. **Hornicek FJ**, Malinin GI, Thornthwaite JT, Malinin TI: Flow cytometry of blastogenesis and the concomitant viability assay of lymphocytes stained with 4',6 diamidino-2-phenylindole. *Basic Appl. Histochem.* 30:453-461, 1986.
10. Malinin GI, Lo HK, **Hornicek FJ**: Structural photomodification of erythrocyte ghosts by longwave UV light and psoralen. *Photobiochem. Photobiophysics* 13:145-153, 1986.
11. **Hornicek FJ**, Malinin GI, Thornthwaite JT, Whiteside M, MacLeod C, Malinin TI: Effect of mitogens on the cell cycle progression and the quantification of T-lymphocyte surface markers in acquired immune deficiency syndrome. *J. Leukocyte Biol.* 42:122-127, 1987.
12. Malinin TI, **Hornicek FJ**, Block NL, Malinin GI: Aneuploidy of glandular epithelial cells in histologically normal prostate glands. *Experientia* 44:247-249, 1988.

13. **Hornicek FJ**, Reiss E, Malinin TI, Malinin GI: Establishment of primary cell cultures from human and canine parathyroid gland explants. *Bone Mineral* 4: 157-165, 1988.
14. Zakarija M, **Hornicek FJ**, Levis S, McKenzie JM: Effects of g-interferon and tumor necrosis factor n on thyroid cells: induction of class II antigen and inhibition of growth stimulation. *Molecular Cell. Endocrinology* 58: 129-136, 1988.
15. **Hornicek FJ**, Reese DH, Lo HK, Malinin TI, Malinin GI: Periodic acid-induced blastogenesis of lymphocytes is independent of phosphoinositide turnover. *Biochem. Biophys. Res. Commun.* 154:606-612, 1988.
16. Thornthwaite JT, Loutzenhiser K, **Hornicek FJ**, Donahue R, Allen LM: Flow cytometric enumeration of colonies for *in vitro* chemotherapeutic drug evaluation. *Cytometry* 10:98-102,1989.
17. Malinin GI, **Hornicek FJ**, Malinin TI: Enhanced protein phosphorylation, IL-2 receptor expression, and IL-2 production precede cellular proliferation in lymphocytes oxidized by periodic acid. *Biochem. Biophys. Res. Commun.* 158:590-594,1989.
18. **Hornicek FJ**, Malinin TI, Gratzner HG, Malinin GI: Cytometric analysis of the proliferative capacity of HUT 102 lymphoblasts exposed to long-wave UV light and psoralen. *J. Invest. Dermatol.* 93:96-99, 1989.
19. Malinin GI, Hemberger DE, **Hornicek FJ**, Lo HK, Mayer WG: Non-thermal effects of ultrasound on erythrocyte ghosts at 77 K. *Studia Biophysica* 135:83 - 91, 1990.
20. Malinin GI, **Hornicek FJ**, Malinin TI: Production of interleukin 1b by periodic acid-oxidized human peripheral blood mononuclear cells. *Molecular Cell. Biochem.* 95: 177-182, 1990.
21. Malinin GI, Lo HK, **Hornicek FJ**, Malinin TI: Ultrastructural modification of the plasma membrane in HUT 102 lymphoblasts by long-wave ultraviolet light, by psoralen, and by PUVA. *J. Invest. Dermatol.* 95:97-103,1990.
22. Malinin GI, **Hornicek FJ**, Malinin TI: Direct oxidation of lymphocytes by chromic acid does not induce blastogenesis. *Bioscience Reports* 10:347-352,1990.
23. Roth A, **Hornicek FJ**, Gerstner CG, Kirkwood JM: Effects of interferon gamma and tumor necrosis factor alpha on the development of cytotoxic T-lymphocytes in autologous mixed lymphocyte tumor cultures with human melanoma. *Clin. Exp. Immunol.* 86:163-172, 1991.
24. **Hornicek FJ**, Malinin GI, Malinin TI, Lo HK: Turnover of phospholipids in HUT 102 lymphoblasts and chromatographic characterization of purified phosphatidylcholines after exposure to long-wave ultraviolet light, psoralen, and UV light and psoralen. *J.Photochem. Photobiol. B: Biol.* 12:359-374, 1992.
25. Malinin GI, **Hornicek FJ**, Lo HK, Malinin TI: Cytometric and electron microscopic studies of the direct interaction of divalent nickel with intact, and chemically modified HUT 78 lymphoblasts. *Cell Biol. Toxicology* 8: 27-41, 1992.



26. Pollice A, McCoy JP, Shackney SE, Smith CA, Agarwal J, Burholt DR, Janocko LE, **Hornicek FJ**, Hartsock RJ: Sequential paraformaldehyde and methanol fixation for simultaneous flow cytometric analysis of DNA, cell surface proteins, and intracellular proteins. *Cytometry* 13:432-444, 1992.
27. Reese DH, Larsen RA, **Hornicek FJ**: Control of alkaline phosphatase activity in C3H10T1/2 cells: Role of retinoic acid and cell density. *J. Cell. Phys.* 151:239-249, 1992.
28. **Hornicek FJ**, Malinin GI, Malinin TI: Calcium is required for the mitogenic activation of lymphocytes by periodic acid oxidation. *Biochem. Biophys. Res. Commun.* 183:144-149, 1992.
29. Renfree KJ, Banovac K, **Hornicek FJ**, Lebowitz NH, Villaneuva P, Nedd K: Evaluation of serum osteoblast mitogenic activity in spinal cord and head injury patients with acute heterotopic ossification. *Spine* 19: 740-746, 1994.
30. **Hornicek FJ**, Malinin GI, Banovac K, Malinin TI: Morphologic and metabolic changes in rat osteoblast cultures during the dark reaction with 8-methoxypsoralen. *Chem. Biol. Inter.* 90:185-193, 1994.
31. Mnaymneh W, Malinin TI, Lackman RD, **Hornicek FJ**, Ghandur-Mnaymneh L: Massive distal femoral osteoarticular allografts after resection of bone tumors. *Clin. Ortho. Rel. Res.* 303:103-115, 1994.
32. Malinin GI, **Hornicek FJ**, Banovac K, Malinin TI: Interaction of cultured rat osteoblasts with 8-methoxypsoralen during irradiation with long-wave ultraviolet light. *Biochem. Biophys. Res. Commun.* 207:877-881, 1995.
33. Altman RD, Latta LL, Keer R, Renfree K, **Hornicek FJ**, Banovac K: Effect of nonsteroidal antiinflammatory drugs on fracture healing: A laboratory study in rats. *J. Ortho. Trauma* 9:392-400, 1995.
34. Malinin GI, Vornberger WJ, **Hornicek FJ**, Malinin TI: Effects of psoralen on the structural integrity of cultured osteoblasts. *Arch. Toxicol.* 70:182-188, 1996.
35. Malinin TI, **Hornicek FJ**: Response of human chondrocytes cultured *in vitro* to human somatotropin, triiodothyronine, and thyroxine. *Transplantation Proceedings* 29:2037-2039, 1997.
36. McAuliffe JA, Seltzer DG, **Hornicek FJ**: Upper extremity infections in HIV seropositive patients. *J. Hand Surg.* 22A: 1089-1095, 1997.
37. Rosenthal DI, **Hornicek FJ**, Wolfe MW, Jennings LC, Gebhardt MC, Mankin HJ: Changes in the management of osteoid osteoma. *J. Bone Joint Surg.* 80: 815-821, 1998.
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1998.

40. Rosenthal DI, **Hornicek FJ**, Wolfe MW, Jennings LC, Gebhardt MC, Mankin HJ: Decreasing length of hospitalization in treatment of osteoid osteoma. *Clin. Ortho. Rel. Res.* 361: 186-198, 1999.
41. **Hornicek FJ**, Gebhardt MC, Sorger JS, Mankin HJ: Tumor reconstruction. *NorthAmer. Clinics.* 30: 673 – 684, 1999.
42. **Hornicek FJ**, Gebhardt MC, Wolfe MW, Kharazzi FD, Takeshita H, Parekh S, Zurakowski D, Mankin HJ: P-glycoprotein levels predict poor outcome in osteosarcoma. *Clin. Ortho. Rel. Res.* 373: 11-17, 2000.
43. Boyle MJ, **Hornicek FJ**, Robinson DS, Mnaymneh W: Internal hemipelvectomy for solitary thyroid cancer metastases. *J. Surg. Oncol.* 75: 3-10, 2000.
44. **Hornicek FJ**, Gebhardt MC, Tomford WW, Sorger JI, Zavatta M, Menzner JP, Mankin HJ: Factors affecting nonunion of the allograft-host junction. *Clin. Ortho. Rel. Res.* 382: 87-98, 2001.
45. Sorger JI, **Hornicek FJ**, Zavatta M, Menzner JP, Gebhardt MC, Tomford WW, Mankin HJ: Allograft fractures revisited. *Clin. Ortho. Rel. Res.* 382: 66-74, 2001.
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49. Mankin HJ, Fondren G, **Hornicek FJ**, Gebhardt MC, Rosenberg AE: The use of flow cytometry in assessing malignancy in bone and soft tissue tumors. *Clin. Ortho. Rel. Res.* 397: 95-105, 2002.
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51. Refaat Y, Gunnoe J, **Hornicek FJ**, Mankin HJ: Comparison of quality of life after amputation or limb salvage. *Clin. Ortho. Rel. Res.* 397: 298 – 305, 2002.
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53. Tang P, **Hornicek FJ**, Gebhardt MC, Cates J, Mankin HJ: Surgical treatment of hemangiomas of soft tissue. *Clin Orthop.* 399:205-10, 2002.
54. Kaban LB, Troulis MJ, Ebb D, August M, **Hornicek FJ**, Dodson TB: Antiangiogenic therapy with interferon alpha for giant cell lesions of the jaws. *J. Oral Maxillofac Surg* 60: 1103-1111, 2002.

55. Rosenthal DI, Marota JJ, **Hornicek FJ**: Osteoid osteoma: elevation of cardiac and respiratory rates at biopsy needle entry into tumor in 10 patients. *Radiology* 226:125-128, 2003.
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57. Morioka, H, Morii, T, Vogel, T, **Hornicek, FJ**, and Weissbach, L: Interaction of Plasminogen-Related Protein-B with Endothelial and Smooth Muscle Cells *In Vitro*. *Exp Cell Res* 287: 166-177, 2003.
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59. Shao L, Kasanov J, **Hornicek FJ**, Morii T, Fondren G, Weissbach L: Ecteinascidin-743 drug resistance in sarcoma cells: transcriptional and cellular alterations *Biochem Pharmacol*. 66:2381-95, 2003.
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65. Mankin HJ, **Hornicek FJ**, Temple HT, Gebhardt MC: Malignant tumors of the pelvis: an outcome study. *Clin Orthop*. 425:212-7, 2004.
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- 72 Mankin HJ, **Hornicek FJ**, Rosenberg AE, Harmon DC, Gebhardt MC: Survival data for 648 patients with osteosarcoma treated at one institution. Clin Orthop Relat Res. 429:286-91, 2004
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## Other Peer Reviewed Publications

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#### Book Chapters and Reviews

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### **MS Thesis:**

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## **Non-Print Materials**

### **F1000 and UpToDate Reviews**

DeLaney TF, Hornicek FJ, Mankin HJ: Epidemiology, pathology, and molecular genetics of the Ewing's sarcoma family of tumors. In Canellos, Schnipper L and Savarese DMF, editors. UpToDate in Oncology CD-ROM/Online. Wellesley: UpToDate, 2001 – present.

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### **Clinical Guidelines and Reports**

National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology: Bone Sarcomas. Suggested standards of care

Web address: [http://www.nccn.org/professionals/physician\\_gls/PDF/sarcoma.pdf](http://www.nccn.org/professionals/physician_gls/PDF/sarcoma.pdf)

Material is used nationally by clinicians for guidelines for evaluation and treatment of patients with bone sarcomas. These guidelines are used by insurers for re-imburement qualification. As a result of regular meetings a recent publication from our panel discussing changes has occurred.

### **Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings**

#### **Exhibits:**

1. Mnaymneh W, Malinin, TI, Lachman, RD, **Hornicek, FJ**: Massive osteoarticular allograft reconstruction of the knee following resection of bone tumors not requiring chemotherapy. AAOS, Orlando, FL, 1995.
2. Mankin H, Mankin C, **Hornicek F**, Simon M: Hazards of Biopsy Revisited. AAOS, San Francisco, CA, 2004.
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1. **Sacropelvic resection for malignant primary tumors.** Sacral Study Group 2011
2. **High-dose proton-beam based radiation therapy(RT) with or without surgery in the management of primary and recurrent spine chordomas (CH): A retrospective review of outcomes and clinicopathologic prognostic factors,** CTOS/MSTS 2011
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4. **An approach to recurrent primary osseous sarcomas of the thoracolumbar spine.** CTOS/MSTS 2011.
5. **High dose proton beam radiation therapy with or without surgery in the management of primary and recurrent spine chordomas.** ISOLS 2011.
6. **Sacral fractures after high dose radiation and resection of sacral chordoma,** ISOLS 2011.
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9. **A potential target for the treatment of chordoma: CHC2L1 (PITSLRE) .** ORS, 2012.
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14. **PDL-1 expression in osteosarcoma.** CTOS 2013
15. **A binary biological model for predicting long-term sarcoma specific survival.** CTOS 2013
16. **Surgical margin width and outcomes in irradiated extremity and truncal soft tissue sarcoma** CTOS 2013
17. **Role of post-operative radiation boost for soft tissue sarcomas with positive margins following preoperative radiation and surgery.** CTOS 2013
18. **Quality of life for mobile spine chordoma.** MSTS 2013
19. **Reconstruction of type III pelvic defects.** MSTS 2013
20. **Pelvic allograft reconstruction.** MSTS 2013
21. **Quality of life after mobile spine tumor resection.** AAOS 2013
22. **Quality of life after sacral tumor resection** EMSOS 2013
23. **Quality of life after mobile spine tumor resection** EMSOS 2013
24. **Proximal femoral replacement following bone tumor resection.** ISOLS 2013
25. **Quality of life questionnaires.** Sacral Study Group 2013
26. **Quality of life after En-bloc resection of malignant tumors of the mobile spine.** AAOS 2014.
27. **Kin1-141, Identified in a high-throughput Cell-based screen reverses multidrug resistance in osteosarcoma.** ORS 2014.
28. **Surgical margins in soft tissue sarcomas.** Chinese MSTS 2014.
29. **4th Spine & Pelvic Tumor Instructional Course, XRT for spine tumors, Beijing, 2014**
30. **4<sup>th</sup> annual International Spine Surgery Symposium, Progress in Surgery for Chordoma, Boston 2014**
31. **IAP 2014 Resection margins in soft tissue sarcoma: A surgeon's perspective, Bangkok 2014**
32. **ORS 2015 Programmed cell death ligand 1 expression in chordoma**
33. **ORS 2015 Expression of PIM1 kinase in osteosarcoma and the clinical significance**



- 34. AACR 2015 Layer by layer engineering of upconversion nanoparticle based si RNA and mi RNA delivery system for cancer therapy**
- 35. AACR 2015 Up-regulation of CD44 in the development of metastasis, recurrence and drug resistance of ovarian cancer**
- 36. Chordoma. Rizzoli Institute, Bologna, Italy 2015**
- 37. Seoul Sarcoma Symposium 2015 Pelvic sarcomas and CDK11 in Osteosarcoma**

### ***Narrative Report***

My recent professional career has focused on musculoskeletal tumors and area of excellence should be considered clinical expertise and innovation. This has meant a wide range of activities for me from difficult patient care to innovative basic science research but all with connections at some level to musculoskeletal neoplasms. The clinical care I provide has been focused on orthopaedic oncology patients with complex spine and pelvis sarcomas. These patients have varied in age from babies to the elderly, referred specifically for this expertise from across the U.S. and many countries around the world. Four years ago working together with Memorial Sloan Kettering Cancer Center and the Mayo Clinic we founded the Sacral/Pelvic Tumor Study group to bring together experts in a rare disease field and develop a combined database to answer important questions about quality of life assessment following complex surgical procedures.

Management of patients with spine and pelvis sarcomas can be very challenging and is best managed with a multidisciplinary approach. This approach to patient care by us has been a stimulus for a variety of research endeavors to assess and improve patient outcomes. My clinical innovations include development of intraoperative methods of irradiation of the dura in patients with primary sarcomas of the spinal axis. Other clinical innovations include the treatment of patients with advanced stages of sarcoma with novel chemotherapeutic drugs and we have increased our participation in clinical trials significantly from prior years. I have also spent more than two decades transplanting allograft tissues to reconstruct tumor defects. My interest in allograft tissues has developed into an international reputation in tissue banking demonstrated by the important positions held by me within the American Association of Tissue Banks. I have also become internationally known for treatment of chordomas and set-up the first center for care of this rare tumor; the Stephan L. Harris Center for Chordoma care. We are considered a leading center to manage this rare tumor and continue to host visitors and trainees from around the world interested in learning about emerging technologies.

Besides clinical care I have assumed more broad and progressive administrative responsibilities in the Orthopaedic Surgery Department and Massachusetts General Hospital (MGH) Cancer Center as well as at the national and international levels in various societies. Our Sarcoma Group which I lead is comprised of diversified medical specialists from multiple departments who have come together to provide sarcoma care and perform outstanding basic and clinical research. Not long ago I was even appointed as Co-Leader of the Dana Farber/ Harvard Cancer Center Sarcoma Group along with Dr. George Demetri of the Dana Farber Cancer Center. In Boston I have been fortunate to be able to interact with a diverse group of clinicians and scientists to accomplish my many different professional career goals.

My current basic science research interests have been in dissecting the mechanisms of multi-drug resistance in human cancer. I have focused on the generation and analysis of several drug resistant cell lines derived from different types of tumors. Together with Dr. Zhenfeng Duan we have identified small molecules to reverse drug resistance, and characterized molecular mechanisms governing growth and proliferation of human sarcoma cells. Previously, we have found multidrug resistance could be partially reversed by siRNA targeting of ABCB1 (MDR1) or by combination of nanoparticles with chemotherapy drugs. National Cancer Institute (NCI) Cancer Nanotechnology Platform Partnership (CNPP) has awarded us a U01 grant for 5 years in collaboration with Northeastern University. I have also studied the development of new chemotherapeutic drugs isolated from marine organisms for the treatment of sarcomas, which has led to various clinical trials over a decade. Screening of chemical libraries for biologically active compounds aimed at specific targets or pathway was a powerful approach we used to find novel therapeutic agents. I plan to continue my research efforts in the basic and clinical sciences and maintain integration with my clinical practice of orthopaedic oncology and tissue banking. The recently

awarded unique multi-institutional sarcoma U54 SPORE grant has required significant time and effort in leading the Developmental Research Project section and participation in translational sarcoma projects.

In addition to my clinical and research activities I have been involved with the teaching of orthopaedic residents, general surgery residents, graduate students in the basic sciences, and medical students. I have also presented at the Harvard Primary Care Orthopaedic course offered to primary care physicians in New England and the Boston Basic Sciences in Orthopaedics course offered to orthopaedic residents from New England and other regions within the United States as well as internationally. I have given Harvard medical student lectures with the topics have ranging from physical examination to bone and soft tissue tumor evaluation. I am involved in the Core Curriculum for the Harvard Combined Residency Program and give lectures during the formal course that deal with tumors and fractures. I participate in resident education at primarily the MGH teaching all levels of residents on the orthopaedic oncology service. I was fellowship director for a decade working to further improve the curriculum. I serve as a mentor to a new fellow every four to six months providing both clinical and research education to these fellows. I plan to continue these educational efforts in conjunction with my research and patient care in the future.