

**PERSONAL DATA**

Name: Matthew W. Colman

Citizenship: United States

**EDUCATION**

<u>Years</u>	<u>Degree</u>	<u>Institution (Area of Study)</u>
1997 - 2001	B.A.	Dartmouth College (Chemistry with Italian language concentration) Hanover, NH
2003 - 2007	M.D.	University of Chicago Pritzker School of Medicine (Medicine) Chicago, IL
2007 - 2012	Resident	University of Pittsburgh Medical Center (Orthopedic Surgery) Pittsburgh, PA
2012 - 2013	Fellow	Harvard University, The Massachusetts General Hospital, Children's Hospital Boston (Adult and Pediatric Musculoskeletal Oncology) Boston, MA
2013 - 2014	Fellow	University of Utah (Orthopedic and Neurosurgical Spine Surgery) Salt Lake City, UT

**BOARD CERTIFICATIONS**

08/2016 American Board of Orthopaedic Surgery

**CURRENT LICENSES/CERTIFICATIONS**

2014- Illinois State Medical Board

2014- Indiana State Medical Board

**PROFESSIONAL EXPERIENCE****Full Time Positions**

- 2014 - Assistant Professor, Rush University Medical Center / Midwest Orthopedics at Rush, Spine Surgery and Musculoskeletal Oncology
- 2001 - 2003 Associate Consultant for Business Strategy, The Parthenon Group, Boston, MA
- Performed market research, financial analysis, and strategy optimization

**SCHOLASTIC HONORS**

- 1999 - 2001 Dartmouth College, Presidential Scholar Research Fellow in Chemistry, Hanover, NH
- 2001 Dartmouth College, Merck Prize for Achievement in Chemistry, Hanover, NH
- 2001 Dartmouth College, Zabriskie Research Fellow in Chemistry, Hanover, NH
- 2001 Rhodes Scholar National Finalist
- 2001 Dartmouth College, Academic All-Ivy, First Team Track and Field
- 2001 Dartmouth College, B.A. Honors, Cum Laude, Hanover, NH
- 2004 Keith Edson International Health Fellowship for Clinical Study, Rome, Italy
- 2004 University of Chicago, Scientific Research Forum, Honorable Mention, Chicago, IL
- 2007 Alpha Omega Alpha, University of Chicago, Chicago, IL
- 2007 University of Chicago Pritzker School of Medicine, Outstanding Achievement Award, For the most

2007 outstanding achievement over four years of medical school, Chicago, IL  
University of Chicago Pritzker School of Medicine, M.D. with Honors, Chicago, IL  
2010 University of Pittsburgh, J Orthopedic Trauma, Best Resident Teaching Award, Pittsburgh, PA  
2012 University of Pittsburgh Medical Center, 2012 Department of Orthopedic Surgery Research Day,  
Best clinical research paper, "Metastasectomy for skeletal melanoma," Pittsburgh, PA  
2012 American Academy of Orthopedic Surgeons Clinician Scientist Development Program, Chicago, IL

### **ADMINISTRATIVE EXPERIENCE**

2016- Publications Committee, ISASS Vertebral Columns publication  
2014- Rush University Medical College Department of Orthopedic Surgery Resident Clinical Competency  
Committee  
2000-2001 Captain, Dartmouth College Track and Field, Hanover, NH  
2011 - 2012 Elected Administrative Chief Resident, Pittsburgh, PA

### **PROFESSIONAL COMMUNITY ACTIVITIES**

2003 Medical Volunteer, Helping Hands, Volunteered for 6 months in urban, rural village, and mobile  
health clinics. Taught health education and basic science to Nepali school children, Nepal  
2007 - 2009 Team Physician, South Park High School, Football, Class AA, South Park, PA  
2010 - 2011 Team Physician, Woodland Hills High School, Football, Class AAAA, Pittsburgh, PA

### **SERVICE AT PREVIOUS INSTITUTIONS**

2003 - 2007 Student Director, University of Chicago Pritzker School of Medicine, Washington Park Free Pediatric  
Clinic. Responsible for operations of the student-run, free pediatric clinic, including recruitment of  
physician and student volunteers, clinic referrals, community outreach and publicity, and supplies and  
finance management, Chicago, IL  
2004 Volunteer, University of Chicago Pritzker School of Medicine, Keith Edson International Health  
Fellowship. Spent 3 weeks volunteering at two city hospitals, working closely with Italian physicians  
in Internal Medicine, and learning about the Italian health care system, Rome, Italy  
2004 - 2007 Teaching Assistant, University of Chicago Pritzker School of Medicine, Human Morphology,  
Biochemistry and Neurobiology  
2011 Volunteer, University of Pittsburgh, William F. and Jean Donaldson Travelling Fellowship in  
Pediatric Orthopedic Surgery. Organized and participated in medical/surgical mission through CURE  
International with Senior Vice Chairman Morey Moreland, MD, San Pedro Sula, Honduras

### **MEMBERSHIPS IN PROFESSIONAL SOCIETIES**

2007 – Alpha Omega Alpha, University of Chicago Chapter  
2007 – American Academy of Orthopedic Surgeons  
2013 – 2014 AO North America Spine Fellow  
2015 – AO Spine Member  
2015 – North American Spine Society  
2015- International Society for Advancement of Spine Surgery

### **PEER-REVIEWED JOURNAL ARTICLES**

1. **Colman M**, Pond J, Bachus K, Lawrence BD, Spiker WR, Brodke DS. Fenestrated Screws Augmented with PMMA Increase the Pull-out Strength of Sacral Pedicle Screws. Clin Spine Surg. 2016 Jul 14
2. **Colman MW**, Guss A, Bachus KN, Spiker WR, Lawrence BD, Brodke DS. Fixed-Angle, Posteriorly Connected Anterior Cage Reconstruction Improves Stiffness and Decreases Cancellous Subsidence in a Spondylectomy Model. Spine 2016 May;41(9):E519-23.

3. Ahn J, **Colman MW**. En Bloc Spondylectomy for Primary Tumors and Metastatic Disease: A Review of Reported Outcomes. *Contemporary Spine Surgery*. April 2016 Vol. 17 (14)
4. Karim SM, **Colman MC**, Cipriani NA, Nielsen GP, Schwab JH, Hornicek FJ. Surgical management of Gorham-Stout disease of the pelvis refractory to medical and radiation therapy. *Am J Orthop (Belle Mead NJ)*. 2015 Nov;44(11):E473-7.
5. **Colman MW**, Hornicek FJ, Schwab JH. Spinal Cord Blood Supply and Its Surgical Implications. *J Am Acad Orthop Surg*. 2015 Oct;23(10):581-91.
6. **Colman MW**, Karim SM, Hirsch JA, Yoo AJ, Schwab JH, Hornicek FJ, Raskin KA. Percutaneous Acetabuloplasty Compared With Open Reconstruction for Extensive Periacetabular Carcinoma Metastases. *J Arthroplasty*. 2015 Sep;30(9):1586-91.
7. **Colman MW**, Karim SM, Lozano-Calderon SA, Pedlow FX, Raskin KA, Hornicek FJ, Schwab JH. Quality of life after en bloc resection of tumors in the mobile spine. *Spine J*. 2015 Aug 1;15(8):1728-37.
8. Karim SM, **Colman MW**, Lozano-Calderón SA, Raskin KA, Schwab JH, Hornicek FJ. What are the functional results and complications from allograft reconstruction after partial hemipelvectomy of the pubis? *Clin Orthop Relat Res*. 2015 Apr;473(4):1442-8.
9. **Colman M**, Choi L, Chen A, Crossett L, Tarkin I, McGough R. Proximal femoral replacement in the management of acute periprosthetic fractures of the hip: a competing risks survival analysis. *J Arthroplasty*. 2014 Feb;29(2):422-7.
10. Lozano-Calderon SA, **Colman MW**, Raskin KA, Hornicek FJ, Gebhardt M. Use of bisphosphonates in orthopedic surgery: pearls and pitfalls. *Orthop Clin North Am*. 2014 Jul;45(3):403-16.
11. **Colman MW**, Kirkwood JM, Schott T, Goodman MA, McGough RL 3rd. Does metastasectomy improve survival in skeletal melanoma? *Melanoma Res*. 2014 Aug;24(4):354-
12. **Colman MW**, Lozano-Calderon S, Raskin KA, Hornicek FJ, Gebhardt M. Non-neoplastic soft tissue masses that mimic sarcoma. *Orthop Clin North Am*. 2014 Apr;45(2):245-55.
13. **Colman M**, Wright A, Gruen G, Siska P, Pape HC, Tarkin I. Prolonged operative time increases infection rate in tibial plateau fractures. *Injury*. 2013 Feb;44(2):249-52.
14. Chen AF, Choi LE, **Colman MW**, Goodman MA, Crossett LS, Tarkin IS, McGough RL. Primary versus secondary distal femoral arthroplasty for treatment of total knee arthroplasty periprosthetic femur fractures. *J Arthroplasty*. 2013 Oct;28(9):1580-4. doi:
15. **Colman MW**, Ye J, Weiss KR, Goodman MA, McGough RL 3rd. Does combined open and arthroscopic synovectomy for diffuse PVNS of the knee improve recurrence rates? *Clin Orthop Relat Res*. 2013 Mar;471(3):883-90.
16. Chien AT, **Colman MW**, Ross LF. Qualitative insights into how pediatric pay-for-performance programs are being designed. *Acad Pediatr*. 2009 May-Jun;9(3):185-91.
17. **Colman M**, Mass DP, Draganich LF. Effects of the deep anterior oblique and dorsoradial ligaments on trapeziometacarpal joint stability. *J Hand Surg Am*. 2007 Mar;32(3):310-7.
18. Acierno JS Jr, Kennedy JC, Falardeau JL, Leyne M, Bromley MC, **Colman MW**, Sun M, Bove C, Ashworth LK, Chadwick LH, Schiripo T, Ma S, Goldin E, Schiffmann R, Slaugenhaupt SA. A physical and transcript map of the MCOLN1 gene region on human chromosome 19p13.3-p13.2. *Genomics*. 2001 Apr 15;73(2):203-10.
19. Sun M, Goldin E, Stahl S, Falardeau JL, Kennedy JC, Acierno JS Jr, Bove C, Kaneski CR, Nagle J, Bromley MC, **Colman M**, Schiffmann R, Slaugenhaupt SA. Mucopolidosis type IV is caused by mutations in a gene encoding a novel transient receptor potential channel. *Hum Mol Genet*. 2000 Oct 12;9(17):2471-8.

## **BOOK CHAPTERS**

1. **Colman MW**. Tumors of the Hip and Pelvis. *Chapman's Comprehensive Orthopedic Surgery*, 4<sup>th</sup> ed. Publication pending, 2017. Ed. Chapman, MW. Jaypee Brothers Medical Publishing.
2. **Colman MW**, Schwab, JH. Current Concepts in Primary Benign, Primary Malignant, and Metastatic Tumors of the Spine. In: *Orthopedic Knowledge Update 12*. Ed. Grauer, JH. American Academy of Orthopedic Surgeons 2017.
3. **Colman MW**, Spiker WR. Metastatic Spine Disease. In: *Metastatic Bone Disease*. Ed. Randall RL. Springer 2016

## **ABSTRACTS AND PRESENTATIONS AT NATIONAL/INTERNATIONAL MEETINGS**

1. **Colman MW**, Massel DH, Mayo BC, Long WW, Modi KD, Singh K. Cervical sagittal imbalance is associated with a higher rate of reoperation for adjacent segment disease following ACDF.
  - Podium presentation, Cervical Spine Research Society 2016
2. **Colman, MW**. Malignant Primary and Secondary Spine Tumors. AO Spine Research Forum, 2016
3. **Colman, MW**. Point/Counterpoint: Don't throw away ACDF. Spine Technology and Education Group International Meeting, 2016
4. **Colman, MW**. Point/Counterpoint: Current concepts in lumbar interbody fixation. Spine Technology and Education Group International Meeting, 2016
5. **Colman MW**. Malignant and Benign Tumor Review. American Society for Surgery of the Hand / American Academy of Orthopedic Surgeons Annual Board Review, 2016.
6. **Colman, MW**. What's new in Spine Tumors. Spine Technology and Education Group International Meeting, 2015
7. **Colman, MW**. The ABCs of Spinal Deformity: What's really important? Spine Technology and Education Group International Meeting, 2015
8. **Colman, MW**. Outcomes data in spine surgery: What to measure. Rush Alumni Spine Symposium 2016
9. **Colman MW**, Spiker WR, Lawrence BD, Brodke DS. Interbody vs. no interbody for degenerative spondylolisthesis: is there a difference in fusion or quality of life?
  - Podium Presentation, Lumbar Spine Research Society, 2015
10. **Colman MW**, Spiker WR, Lawrence BD, Daubs MD, Curry PC, Brodke DS. Outcomes after acute proximal junctional failure in adult spinal deformity.
  - Podium Presentation, Lumbar Spine Research Society, 2015
11. **Colman MW**. Point/Counterpoint: Epidemiology of degenerative scoliosis. Lumbar Spine Research Society 2015.
12. **Colman MW**. Point/Counterpoint: Open traditional approach to degenerative scoliosis. Lumbar Spine Research Society 2015.
13. **Colman MW**. Malignant and Benign Tumor Review. American Society for Surgery of the Hand / American Academy of Orthopedic Surgeons Annual Board Review, 2015.
14. **Colman MW**, Karim SM, Lozano-Calderon S, Shah V, Hirsch JA, Yoo AJ, Schwab JS, Hornicek FJ, Raskin KA. Percutaneous acetabuloplasty compared with surgery for high grade periacetabular carcinoma metastases.
  - Podium Presentation, American Academy of Orthopedic Surgeons 2014, New Orleans, LA
  - Poster Presentation, Musculoskeletal Tumor Society 2013, San Francisco, CA
15. Gebhardt MC, **Colman MW**. Tumors of the Hand. New England Hand Society Annual Meeting 2013
16. Gebhardt MC, **Colman MW**. Complications of allografts for bone tumor reconstruction. American Academy of Orthopedic Surgeons Annual Meeting Specialty Day Lecture, 2013
17. **Colman MW**, Karim SM, Lozano-Calderon S, Raskin KA, Hornicek FJ, Schwab JS. Quality of life after en-bloc resection of mobile spine tumors.
  - Podium Presentation, Musculoskeletal Tumor Society 2013, San Francisco, CA
  - Podium Presentation, American Academy of Orthopedic Surgeons 2014, New Orleans, LA
18. **Colman MW**, Choi LE, Chen AF, Goodman MA, Crossett LC, Tarkin IS, McGough RM. Proximal femoral replacement in the management of acute periprosthetic fractures of the hip.
  - Podium Presentation, American Academy of Orthopedic Surgeons 2012, San Francisco, CA
  - Poster Presentation, Orthopedic Trauma Association, 2012, Minneapolis, MN
  - Poster Presentation, American Association of Hip and Knee Surgeons 2011, Dallas, TX.
19. **Colman MW**, Ye J, Weiss KR, Goodman MA, McGough RL 3rd. Does combined open and arthroscopic synovectomy for diffuse PVNS of the knee improve recurrence rates?
  - Podium Presentation and Symposium Selection, combined Musculoskeletal Tumor Society and Connective Tissue Oncology Society, Chicago, IL, 2011
20. **Colman MW**, Kirkwood JM, Schott T, Irrgang JJ, Goodman MA, McGough RL 3rd. Does Metastasectomy

### Improve Survival in Skeletal Melanoma?

- Podium Presentation, Musculoskeletal Tumor Society 2010, Philadelphia, PA
  - Podium Presentation, American Academy of Orthopedic Surgeons 2011, San Diego, CA
  - Abstract Publication, Connective Tissue Oncology Society 2010, Paris, France
21. Donaldson WF, **Colman MW**. Complications of cervical fractures in ankylosing spondylitis. Cervical Spine Research Society 2009
22. **Colman M**, Mass DP, Draganich LF. Effects of the deep anterior oblique and dorsoradial ligaments on trapeziometacarpal joint stability.
- Podium Presentation, American Academy of Orthopedic Surgeons 2007, San Diego, CA

### Grand Rounds Presentations

- 2008 **Colman MW**, Tarkin IT. Current controversies in operative fixation of fractures of the scapula. University of Pittsburgh, Department of Orthopedic Surgery Grand Rounds
- 2009 **Colman MW**, Donaldson WF. Complications of fractures of the axial skeleton in ankylosing spondylitis. University of Pittsburgh, Department of Orthopedic Surgery Grand Rounds
- 2010 **Colman MW**, McGough RM. Surgical management of chordoma and biomechanics of spinal-pelvic fixation. University of Pittsburgh, Department of Orthopedic Surgery Grand Rounds
- 2015 **Colman MW**. Current Concepts in Primary Spine Tumors. Rush University Medical College Medical Oncology Grand Rounds.
- 2016 **Colman MW**. Malignant Bone Tumors. Rush University Medical College Surgical Grand Rounds.
- 2016 **Colman MW**. Subaxial Cervical Spine Trauma. Rush University Medical College Surgical Grand Rounds.
- 2017 **Colman MW**. Benign Bone Tumors. Rush University Medical College Surgical Grand Rounds.

### POSTER PRESENTATIONS

1. **Colman MW**, Blackrick LR, Wright, AT, Byers, KA, Gruen, GS. *Retention versus removal of hardware in fracture fixation complicated by infection.* American Academy of Orthopedic Surgeons 2010
2. Choi LE, **Colman MW**, Chen AF, Goodman MA, Crossett LC, Tarkin IS, McGough RM. *A comparison of distal femoral replacement and internal fixation in the treatment of periprosthetic fractures after total knee arthroplasty.* American Association of Hip and Knee Surgeons 2011
3. Lindsay B, **Colman MW**, Goodman MA, Weiss KR, McGough RM. *Resection vs. intralesional surgery for isolated renal cell metastases.* Combined Musculoskeletal Tumor Society and Connective Tissue Oncology Society 2011
4. Chen AF, **Colman MW**, Choi LE, Goodman MA, Crossett LC, Tarkin IS, McGough RM. *Failure of total knee arthroplasty periprosthetic femur fracture fixation using plating techniques.* American Academy of Orthopedic Surgeons 2012
5. **Colman MW**, Raskin KA, Schwab JS, Hornicek FJ. *Symphysiotomy: an old technique applied in a novel way for staged resection of massive intrapelvic sacral tumors.* Musculoskeletal Tumor Society 2013
6. **Colman MW**, Karim SM, Raskin KA, Schwab JS, Hornicek FJ. *Allograft reconstruction of the pelvic ring after type III internal hemipelvectomy.* Musculoskeletal Tumor Society 2013
7. **Colman MW**, Guss A, Bachus KN, Spiker WR, Lawrence BD, Brodke DS. *Fixed-Angle, Posteriorly Connected Anterior Cage Reconstruction Improves Stiffness and Decreases Cancellous Subsidence in a Spondylectomy Model.* Lumbar Spine Research Society 2015.

### OTHER SCHOLARLY ACTIVITY

- 2001 **Colman MW**, Glueck DS. Gold nanoclusters with functional surface modifications. Dartmouth College, Molecular Materials Group Research Symposium, Defense of Senior Honors Thesis, Hanover, NH

