

Matthew W. Colman

CURRICULAR VITAE

**Matthew Wesley Colman, MD.
(August 2020)**

matthew.colman@rushortho.com

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

LEADERSHIP TRAINING

1. AAOS Clinician Scientist Development Program, Chicago, IL, 2012
2. Administrative Chief Resident, University of Pittsburgh Orthopedic Surgery, 2011-2012

ACADEMIC APPOINTMENTS

1. Assistant Professor, Rush University Medical Center College, 2014 – present

EMPLOYMENT

1. Partner, Midwest Orthopedics at Rush, 2016 – present
2. Associate Consultant, The Parthenon Group, Boston, MA, 2001 – 2003

CERTIFICATION AND LICENSURE

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1. Illinois State Medical Board, 2014-present
2. Indiana State Medical Board, 2014-present
3. Wisconsin State Medical Board, 2017-present
4. American Board of Orthopedic Surgery, 2016-present

HONORS AND AWARDS

1. Rush University Spine Fellowship Golden Apple Teaching Award, 2018
2. University of Pittsburgh Medical Center, 2012 Department of Orthopedic Surgery Research Day, Best clinical research paper, "Metastasectomy for skeletal melanoma." Pittsburgh, PA, 2018
3. University of Pittsburgh, J Orthopedic Trauma, Best Resident Teaching Award, Pittsburgh, PA, 2010
4. University of Chicago Pritzker School of Medicine, Outstanding Achievement Award. For the most outstanding achievement over four years of medical school, Chicago, IL, 2007
5. Alpha Omega Alpha, University of Chicago, Chicago, IL, 2007
6. University of Chicago, Scientific Research Forum, Honorable Mention, Chicago, IL, 2004
7. Keith Edson International Health Fellowship for Clinical Study, Rome, Italy, 2004
8. Dartmouth College, B.A. Honors, Cum Laude, Hanover, NH, 2001
9. Dartmouth College, Academic All-Ivy, First Team Track and Field, 2001
10. Rhodes Scholar National Finalist, 2001
11. Dartmouth College, Presidential Scholar Research Fellow in Chemistry, Hanover, NH, 2001
12. Dartmouth College, Merck Prize for Achievement in Chemistry, Hanover, NH, 2001
13. Dartmouth College, Zabriskie Research Fellow in Chemistry, Hanover, NH, 2001

SOCIETY MEMBERSHIPS

1. Lumbar Spine Research Society, 2020- present
2. Cervical Spine Research Society, 2017-present
3. Musculoskeletal Tumor Society, 2017-present
4. International Society for Advancement of Spine Surgery, 2017-present
5. North American Spine Society, 2015-present
6. AO Spine, 2013-present
7. American Academy of Orthopedic Surgeons, 2007-present
8. Alpha Omega Alpha, University of Chicago Chapter, 2007-present

TEACHING

Rush University

1. Rush University Department of Orthopedic Surgery, Spine Service / Tumor Service
 - a. Direct clinical contact with residents (30 hours / week)
 - b. Lead weekly Tumor Service teaching conference (45 minutes)

- c. Co-lead weekly Spine Service deformity teaching conference (1 hour)
- d. Co-lead weekly Tumor Service tumor board (1 hour)
- e. Lead yearly OITE tumor review (2 hours)
2. Rush University Spine Fellowship
 - a. Direct clinical contact with spine fellows (15 hours / week)
 - b. Co-lead weekly Spine Service deformity teaching conference (1 hour)
 - c. Attend weekly Spine Service degenerative planning conference (1 hour)
3. EXPLORE RUSH, a clinical shadowing and mentorship program for Rush Medical College M1 students (20 hours per quarter with two medical students)

Grand rounds (local/regional)

1. "Orthopedic Oncology Panel Discussion" Rush University Medical College Medical Oncology Grand Rounds, 2020
2. "Cutting edge modalities in metastatic spine disease." Rush University Medical College Medical Oncology Grand Rounds, 2019
3. "Management of spine tumors." Advocate Health system-wide combined neurosurgery and orthopedic spine surgery Grand Rounds 2018
4. Benign Bone Tumors. Rush University Medical College Surgical Grand Rounds 2017
5. Subaxial Cervical Spine Trauma. Rush University Medical College Surgical Grand Rounds 2016
6. Malignant Bone Tumors. Rush University Medical College Surgical Grand Rounds 2016
7. Current Concepts in Primary Spine Tumors. Rush University Medical College Medical Oncology Grand Rounds 2015
8. Surgical management of chordoma and biomechanics of spinal-pelvic fixation. University of Pittsburgh, Department of Orthopedic Surgery Grand Rounds 2010
9. Complications of fractures of the axial skeleton in ankylosing spondylitis. University of Pittsburgh, Department of Orthopedic Surgery Grand Rounds 2009
10. Current controversies in operative fixation of fractures of the scapula. University of Pittsburgh, Department of Orthopedic Surgery Grand Rounds 2008

Courses

1. RUSH Blended Learning CME online module: "Diagnosis of Cervical Radiculopathy and Myelopathy"
2. Seattle Science Foundation Webinar
 - a. May 2020 "Interesting spine tumor cases" presentation
3. Rush University/Cleveland Clinic/University of Utah Multidisciplinary Journal Club
 - a. May 2020, faculty
4. AO Spine Teaching Faculty (2018-present)
 - a. National webinars
 - i. Annual Fellow's Course: Laminoplasty vs. Posterior decompression and fusion (2020)
 - ii. Lumbar segmental angular improvement: rationale in degenerative conditions (January 2020)
 - iii. Osteoporotic Spine Fractures (December 2018)
 - b. Teaching faculty at in-person AO courses
 - i. Resident basic spine fracture course, Chicago, IL (July 2018)

- ii. Fellow's research forum, Banff, Canada (2014, 2015, 2017, 2019, 2020)
- iii. North American Fellow Cadaver Course 2020
5. NASS Section on Spine Oncology
 - a. Resident and Fellow Course, Chicago, IL 2019
 - b. NASS spine Oncology Symposium, Annual Meeting, 2019
6. Industry Courses
 - a. K2M/Stryker New Fellow Instructional Spine Cadaver Course, Chicago, IL, 2019, 2020
 - b. K2M "Meeting of the Minds" Spine Oncology Course, Chicago, IL, 2018
 - c. Orthofix Spine Principles of Complex Reconstruction Course, 2018

Mentorship

1. Obianuju Obioha, Rush University Medical College Orthopedic Surgery Resident Mentor/Mentee program (2019-present)
2. Timothy Keating, Rush University Medical College Orthopedic Surgery Resident Mentor/Mentee program (2017-present)
3. Timothy Luchetti, Rush University Medical College Orthopedic Surgery Resident Mentor/Mentee program (2015-2019)

CONSULTING POSITIONS

1. Alphatec Spine
2. K2M / Stryker Spine
3. Orthofix Spine
4. Spinal Elements

LEADERSHIP SERVICE/LEADERSHIP POSITIONS

1. Board Member, Little Wish Foundation. Donation sourcing, strategic initiatives, event organization and advisory for pediatric cancer foundation (2017-present)
2. 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
3. Captain, Dartmouth College Varsity Track and Field (2001-2002)

COMMUNITY SERVICE

1. Volunteer, University of Pittsburgh, William F. and Jean Donaldson Travelling Fellowship in Pediatric Orthopedic Surgery, San Pedro Sula, Honduras. Organized and participated in medical/surgical mission through CURE International with Senior Vice Chairman Morey Moreland, MD (2011)
2. Team Physician, South Park High School, Football, Class AA, South Park, PA (2007-2009)

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3. Team Physician, Woodland Hills High School, Football, Class AAAA, Pittsburgh, PA, 2010-2011)
4. Teaching Assistant, University of Chicago Pritzker School of Medicine, Human Morphology, Biochemistry and Neurobiology (2004-2007)
5. 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 (2003)
6. Medical Volunteer, Helping Hands Nepal. Volunteered for 6 months in urban, rural village, and mobile health clinics. Taught health education and basic science to Nepali school children, Nepal (2003)

COMMITTEE AND ADMINISTRATIVE SERVICES

Departmental / Institutional (Department of Orthopedic Surgery)

1. Resident Clinical Competency Committee
2. Education Committee
3. Resident Selection Committee
4. Spine Fellowship Selection Committee

SCIENTIFIC AND SCHOLARLY ACTIVITIES

Membership or Offices in Professional Societies

1. Evidence based medicine committee, Musculoskeletal Research Society, 2020-2023
2. AAOS / AANS American Spine Registry and Musculoskeletal Tumor Registry working group on Spine Tumors 2020-
3. Scientific Program Committee, Cervical Spine Research Society, 2019-2021
4. North American Spine Society, Section on Spine Oncology, 2018-present
5. Annual Meeting Committee, Musculoskeletal Tumor Society, 2018-2021
6. Fellowship Committee, AO Spine North America, 2018-2021
7. Publications Committee, International Society for the Advancement of Spine Surgery (2017-2018)

Reviewer for Professional Journals

1. Clinical Orthopedics and Related Research
2. Journal of Neurosurgery
3. Journal of Surgical Oncology
4. Journal of the American Academy of Orthopedics Surgeons
5. Journal of Pediatric Orthopedics
6. International Journal of Spine Surgery

Invited Presentations at National and International Meetings

1. **Colman, MW**. CT osteoabsorbiometry predicts vertebral endplate subsidence in a human cervical cadaveric model. Cervical Spine Research Society, New York, New York, 2019.

2. **Colman, MW.** Complex reconstruction in osteoporotic spine patients. State of Spine Surgery Annual Meeting, 2019.
3. Khan J, Michalski J, Basques B, Louie P, Chen O, Hayani Z, Kalish C, Elboghdady I, An H, **Colman M.** Do Clinical and Radiographic Outcomes Differ between Diabetics and Non-Diabetics following Posterior Lumbar Spinal Fusion? Lumbar Spine Research Society Annual Meeting, Chicago, IL, 2019 Apr 5.
4. Mormol J, Basques B, Alter K, Khan J, Louie P, Goldberg E, **Colman M.** An H. Risk Factors Associated with Development of Urinary Retention Following Posterior Lumbar Spinal Fusion. Lumbar Spine Research Society Annual Meeting, Chicago, IL, 2019 Apr 4-5.
5. Khan J, Basques B, Gosse J, Hayani Z, Grewal G, Hwang J, Tchalukov K, Derman P, **Colman M.** An H. Does the Number of Patient-Reported Allergies Impact Clinical Outcomes after Lumbar Spinal Fusion? Lumbar Spine Research Society Annual Meeting, Chicago, IL, 2019 Apr 4.
6. Khan J, Basques B, Kunze K, Grewal G, Hong Y, Pardo C, Louie P, **Colman M.** An H. Does Obesity Impact Clinical Outcomes and Lumbar Sagittal Alignment after a Posterior Lumbar Spine Fusion? Lumbar Spine Research Society Annual Meeting, Chicago, IL, 2019 Apr 5.
7. Khan J, Basques B, Vetter C, Kunze K, Pardo C, Chen O, Mormol J, An H, **Colman M.** "Equivalent Outcomes in Patients Undergoing Open Posterior Lumbar Fusion With and Without a History of Prior Lumbar Laminectomy". International Society for the Advancement of Spine Surgery, Anaheim, CA, 2019 April 5.
8. Basques B, Khan J, Chen O, Michalski J, Hayani Z, Hwang J, Kalish C, An H, **Colman M.** "Do Clinical and Radiographic Outcomes Differ Between Diabetics and Non-Diabetics following Posterior Lumbar Spinal Fusion?" International Society for the Advancement of Spine Surgery, Anaheim, CA, 2019 April 5.
9. Khan J, Basques B, Hong Y, Gosse J, Alter K, Banks L, Chitneni A, **Colman M.** An H. "Duration of Preoperative Symptoms Does Not Affect Clinical Outcome after Lumbar Arthrodesis". International Society for the Advancement of Spine Surgery, Anaheim, CA, 2019 April 5.
10. Basques B, Louie P, Khan J, Chen O, Michalski J, Kunze K, **Colman M.** Samartzis D, An H. "Discharge to a Facility Following Posterior Lumbar Fusion: Risk Factors and the Development of a Predictive Scoring System". International Society for the Advancement of Spine Surgery, Anaheim, CA, 2019, April 5.
11. Khan J, Basques B, Hong Y, Gosse J, Chen O, Banks L, Chitneni A, **Colman M.** An H. "Patients with Isolated Back Pain at the Time of Posterior Lumbar Fusion Experience Similar Clinical Improvement to Patients with Leg Pain with or without Back Pain". International Society for the Advancement of Spine Surgery, Anaheim, CA, 2019 April 5.
12. Khan J, Basques B, Hayani Z, Pardo C, Banks L, Hong Y, Tchalukov K, **Colman M.** An H. "Does Obesity Impact Clinical Outcomes and Lumbar Sagittal Alignment after a Posterior Lumbar Spine Fusion?" International Society for the Advancement of Spine Surgery, Anaheim, CA, 2019 April 5.
13. Basques B, Khan J, Kunze K, Chen I, Gosse J, Friedman L, Maschhoff C, **Colman M.** An H. "Do Clinical Outcomes and Sagittal Parameters Differ Between Transforaminal Lumbar Interbody Fusion and Posterolateral Lumbar Fusion for Degenerative

- Spondylolisthesis?" International Society for the Advancement of Spine Surgery. Anaheim, CA. 2019 April 5.
14. Basques B, Nolte M, Khan J, Kadakia K, Gosse J, Mormol J, Derman P, **Colman M**, An H. "Patients with Predominantly Back Pain at the Time of Posterior Lumbar Fusion Experience Similar Clinical Improvement To Patients With Predominantly Leg Pain". International Society for the Advancement of Spine Surgery. Anaheim, CA. 2019 April 5.
 15. **Colman, MW**. Degenerative spondylolisthesis: open technique with or without interbody is the best treatment option. North American Spine Society Evidence and Technology Spine Summit 2019
 16. **Colman, MW**. Esophageal perforation in cervical spine surgery: incidence, etiology, and management . North American Spine Society Evidence and Technology Spine Summit 2019
 17. **Colman, MW**, Singh K. Lasers in Spine Surgery. North American Spine Society Evidence and Technology Spine Summit 2019
 18. **Colman, MW**, Sweeney K, Robichaud H, Nystrom L, Balach T. Patient Specific 3D Cutting Guides Provide Similar Cut Accuracy And Superior Far-Side Cut Penetration Accuracy Compared With Computer Navigation Or Freehand Technique In An Idealized Sawbones Pelvic Resection Model. Musculoskeletal Tumor Society, 2018 (New York, NY)
 19. **Colman, MW**. En Bloc Spondylectomy: technical tips and tricks. Rush Alumni Spine Symposium 2018
 20. **Colman, MW**. New and evolving treatments in the management of spine tumors. Spine Technology and Education Group International Meeting, 2018
 21. **Colman, MW**. Incorporating new technology into practice. North American Spine Society Evidence and Technology Spine Summit 2018
 22. **Colman, MW**. Staying out of trouble in spine tumors. K2M Meeting of the Minds, 2018
 23. **Colman MW**, Innovative and evolving treatments for metastatic spine tumors. Instructional Course Lecture, American Academy of Orthopedic Surgeons, 2019 (Las Vegas), 2018 (New Orleans), 2017 (San Diego)
 24. **Colman MW**, Osteotomy level selection and technical pearls. Ohio State University, Future Leaders Deformity Workshop, 2017
 25. **Colman, MW**. Point/Counterpoint: ACDF is the most reliable operation for two level cervical disease. Spine Technology and Education Group International Meeting, 2017
 26. **Colman, MW**. How we treat spine tumors differently today as compared to 10 years ago. Spine Technology and Education Group International Meeting, 2017
 27. **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. Cervical Spine Research Society 2016 (Toronto)
 28. Fillingham YA, Hellman MD, Erickson BJ, Blank A, Gitelis S, **Colman MW**. Unicameral Bone Cyst: Does Surgical Technique And Type Of Graft Affect Clinical Outcomes? Podium, presented at the Mid-America Orthopaedic Association 2016 Annual Meeting, Bonita Springs, FL
 29. Fillingham YA, Hellman MD, Erickson BJ, Blank A, Gitelis S, **Colman MW**. Unicameral Bone Cyst: Indications, Techniques, and Outcomes. Scientific Exhibit, presented at the American Academy of Orthopaedic Surgeons 2016 Annual Meeting, Orlando, FL

30. **Colman, MW.** Malignant Primary and Secondary Spine Tumors. AO Spine Research Forum, 2016
31. **Colman, MW.** Point/Counterpoint: Don't throw away ACDF. Spine Technology and Education Group International Meeting, 2016
32. **Colman, MW.** Point/Counterpoint: Current concepts in lumbar interbody fixation. Spine Technology and Education Group International Meeting, 2016
33. **Colman MW.** Malignant and Benign Tumor Review. American Society for Surgery of the Hand / American Academy of Orthopedic Surgeons Annual Board Review, 2016.
34. **Colman, MW.** What's new in Spine Tumors. Spine Technology and Education Group International Meeting, 2015
35. **Colman, MW.** The ABCs of Spinal Deformity: What's really important? Spine Technology and Education Group International Meeting, 2015
36. **Colman, MW.** Outcomes data in spine surgery: What to measure. Rush Alumni Spine Symposium 2016
37. **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? Lumbar Spine Research Society, 2015
38. **Colman MW, Spiker WR, Lawrence BD, Daubs MD, Curry PC, Brodke DS.** Outcomes after acute proximal junctional failure in adult spinal deformity. Lumbar Spine Research Society, 2015
39. **Colman MW.** Point/Counterpoint: Epidemiology of degenerative scoliosis. Lumbar Spine Research Society 2015.
40. **Colman MW.** Point/Counterpoint: Open traditional approach to degenerative scoliosis. Lumbar Spine Research Society 2015.
41. **Colman MW.** Malignant and Benign Tumor Review. American Society for Surgery of the Hand / American Academy of Orthopedic Surgeons Annual Board Review, 2015.
42. **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. American Academy of Orthopedic Surgeons 2014, New Orleans, LA; Musculoskeletal Tumor Society 2013, San Francisco, CA
43. Gebhardt MC, **Colman MW.** Tumors of the Hand. New England Hand Society Annual Meeting 2013
44. Gebhardt MC, **Colman MW.** Complications of allografts for bone tumor reconstruction. American Academy of Orthopedic Surgeons Annual Meeting Specialty Day Lecture, 2013
45. **Colman MW, Karim SM, Lozano-Calderon S, Raskin KA, Hornicek FJ, Schwab JS.** Quality of life after en-bloc resection of mobile spine tumors. Musculoskeletal Tumor Society 2013, San Francisco, CA; American Academy of Orthopedic Surgeons 2014, New Orleans, LA
46. **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. American Academy of Orthopedic Surgeons 2012, San Francisco, CA
47. **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? Symposium Selection, combined Musculoskeletal Tumor Society and Connective Tissue Oncology Society, Chicago, IL, 2011

48. **Colman MW**, Kirkwood JM, Schott T, Irrgang JJ, Goodman MA, McGough RL 3rd. Does Metastasectomy Improve Survival in Skeletal Melanoma? Musculoskeletal Tumor Society 2010, Philadelphia, PA; American Academy of Orthopedic Surgeons 2011, San Diego, CA
49. Donaldson WF, **Colman MW**. Complications of cervical fractures in ankylosing spondylitis. Cervical Spine Research Society 2009
50. **Colman M**, Mass DP, Draganich LF. Effects of the deep anterior oblique and dorsoradial ligaments on trapeziometacarpal joint stability. American Academy of Orthopedic Surgeons 2007, San Diego, CA
51. **Colman MW**, Glueck DS. Gold nanoclusters with functional surface modifications. Dartmouth College, Molecular Materials Group Research Symposium, Defense of Senior Honors Thesis, Hanover, NH, 2001

□ **Poster presentations**

1. Farnaz D, Fan Y, Bloom J, Fillingham YA, Mahon B, **Colman M**, Gitelis S, Blank AT. A Clinicopathologic Examination of Myxofibrosarcoma. Rates of Local Recurrence, Metastases and Patient Survival From a Single Institution Review of 40 Cases. Poster, presented at the Connective Tissue Oncology Society 2018 Meeting, Rome, Italy
2. Farnaz D, Fan Y, Bloom J, Fillingham YA, Mahon B, **Colman M**, Gitelis S, Blank AT. A Clinicopathologic Examination of Myxofibrosarcoma. Rates of Local Recurrence, Metastases and Patient Survival From a Single Institution Review of 40 Cases. Poster, presented at the Musculoskeletal Tumor Society 2018 Annual Meeting, New York, NY
3. **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.
4. Bureczak D, Levy D, Fillingham YA, **Colman MW**, Gitelis S. Primary Osseous Leiomyosarcoma: A Comparison with Its Somatic Soft-Tissue Counterpart. Poster, presented at the Connective Tissue Oncology Society 2015 Meeting, Salt Lake City, UT
5. Fillingham YA, Hellman MD, Erickson BJ, Blank A, Gitelis S, **Colman MW**. Unicameral Bone Cyst: Does Surgical Technique And Type Of Graft Affect Clinical Outcomes? Poster, presented at the Musculoskeletal Tumor Society 2015 Annual Meeting, Orlando, FL
6. Bureczak D, Levy D, Fillingham YA, **Colman MW**, Gitelis S. Primary Osseous Leiomyosarcoma: A Comparison with Its Somatic Soft-Tissue Counterpart. Poster, presented at the Musculoskeletal Tumor Society 2015 Annual Meeting, Orlando, FL
7. **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
8. **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
1. 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

2. 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
3. **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. Orthopedic Trauma Association, 2012, Minneapolis, MN; American Association of Hip and Knee Surgeons 2011, Dallas, TX.
4. 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
5. **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
6. **Colman MW**, Kirkwood JM, Schott T, Irrgang JJ, Goodman MA, McGough RL 3rd. Does Metastasectomy Improve Survival in Skeletal Melanoma? Connective Tissue Oncology Society 2010, Paris, France

Funding History of Peer-Reviewed Grants

1. STRIDES NIH ROI grant, Rush Medical College specific PI, study Co-I
 - a. Multicenter randomized prospective trial of ambulatory outcomes in patients with metastatic spine disease treated with or without surgery
 - b. Currently under review under application cycle 2019/2020
2. Colman, MW. CSRS seed/starter grant (\$25,000, 1 year): *CT Osteoabsorbptiometry assessment of subchondral bone density predicts intervertebral subsidence in a human cadaver model*
3. Basque, BA, Colman MW. Mid America Orthopedic Association (\$4,000) *TXA use in degenerative and deformity spine surgery: a prospective comparison of oral and IV formulations*
4. AO Spine Fellowship Grant (2019-2021, Co-investigator, \$75,000)
5. AO Spine Fellowship Grant (2015-2017 Co-investigator, \$75,000)

Funding History of Industry Support

1. Pfizer STRIVE (Staph Aureus Surgical Inpatient Vaccine Efficacy)
 - a. PI 3% effort
 - b. \$15,000 over 1 year
 - c. Study completed and closed in 2019

BIBLIOGRAPHY

Unpublished Manuscripts in process

1. Spine phantom spondylectomy model of dosimetric radiotherapy perturbation using traditional titanium, carbon, or magnesium alloy implants

2. A randomized prospective trial of anterior lumbar interbody fusion using a novel low density, minimal graft-window porous titanium ingrowth implant without biologic supplementation (enrolling)
3. A randomized prospective trial of plate/cage vs. stand alone devices for one and two level acdf (enrolling)
4. A randomized prospective trial of intraoperative disc preparation feedback during transforaminal interbody fusion (enrolling)
5. A randomized prospective trial of the use and formulation options for tranexamic acid in degenerative and deformity spine surgery (enrolling)
6. Comparison of freehand, computer navigation, and 3D- printed cutting guides in a sawbones-simulated sacro-iliac pelvic resection model (manuscript preparation)
7. A randomized prospective trial of abaloparatide before and after adult thoracolumbar deformity surgery: feasibility, outcomes, and complications (enrolling)
8. Conceptualization and implementation of a porcine-based soft tissue sarcoma resection model in orthopedic resident-level education (laboratory testing)

❑ Published original full-length manuscripts

1. Gandhi S, Liu DS, Sheha E, **Colman MW**. Prone Trans-Psoas Lumbar Corpectomy: Simultaneous Posterior and Lateral Lumbar Access for Difficult Clinical Scenarios. *Journal of Neurosurgery Spine*, Accepted December 2020.
2. Barton LB, Arant KR, Blucher JA, Sarno DL, Redmond KJ, Balboni TA, **Colman M**, Goodwin CR, Laufer I, Placide R, Shin JH, Sciubba DM, Losina E, Katz JN, Schoenfeld AJ. The Orthopaedic Forum Clinician Experiences in Treatment Decision-Making for Patients with Spinal Metastases: A Qualitative Study. *J Bone Joint Surg Am*. 2020 Nov 2.
3. Molina CA, Phillips FM, **Colman MW**, Ray WZ, Khan M, Orru' E, Poelstra K, Khoo L. A cadaveric precision and accuracy analysis of augmented reality-mediated percutaneous pedicle implant insertion. *J Neurosurg Spine*. 2020 Oct 30:1-9.
4. Mormol JD, Basques BA, Harada GK, Louie PK, Alter K, Goldberg E, **Colman MW**, An HS. Risk Factors Associated with Development of Urinary Retention Following Posterior Lumbar Spinal Fusion: Special Attention to the Use of Glycopyrrolate in Anesthesia Reversal. *Spine (Phila Pa 1976)*. 2020
5. Dadrass F, Gitelis S, **Colman MW**, Blank AB. A Clinicopathologic Examination of Myxofibrosarcoma. Do Surgical Margins Significantly Affect Local Recurrence Rates in This Infiltrative Sarcoma Subtype? *Journal of Surgical Oncology*, October 30, 2020.
6. Barton LB*, Arant KR*, Blucher JA, Sarno DL, Redmond KJ, Balboni TA, **Colman M**, Goodwin CR, Laufer I, Placide R, Shin JH, Sciubba DM, Losina E, Katz JN, Schoenfeld AJ. Clinician Experiences in Treatment Decision-Making for Patients with Spinal Metastases: A qualitative study. *J Bone Joint Surg Am* 2020 (Accepted for publication 9/10/2020).
7. Tepper SC, Blank AT, Gitelis S, **Colman MW**. Pelvic ring reconstruction with segmental spinal instrumentation after complete type I pelvic resection. *J Surg Oncol*. 2020 Aug 25.
8. Tamkus S, Gusho CA, **Colman MW**, Miller I, Gitelis S, Blank AT. A Single Institutional Experience Treating Adipocytic Tumors: Incidence, Disease-Related Outcomes, and the Clinical Significance of MDM2 Analysis. *Orthopedic Reviews*. Accepted August 2020.
9. Siegel, M, Balach, T, Nystrom L, Sweeney K, **Colman MW**. Sacroiliac joint cut accuracy: comparing new technologies in an idealized sawbones model. *Journal of Surgical Oncology*. Accepted July 2020.

10. Khan JM, Michalski J, Basques BA, Louie PK, Chen O, Hayani Z, Kalish C, Elboghdady I, **Colman M**, An H. Do Clinical Outcomes and Sagittal Parameters Differ Between Diabetics and Nondiabetics for Degenerative Spondylolisthesis Undergoing Lumbar Fusion? *Global Spine J*. 2020 May;10(3):286-293.
11. Khan JM, Basques BA, Harada GK, Louie PK, Chen I, Vetter C, Kadakia K, Elboghdady I, **Colman M**, An HS. Does increasing age impact clinical and radiographic outcomes following lumbar spinal fusion? *Spine J*. 2020 Apr;20(4):563-571.
12. Harada GK, Basques BA, Samartzis D, Goldberg EJ, **Colman MW**, An HS. Development and validation of a novel scoring tool for predicting discharge after elective posterior lumbar fusion. *Spine J*. 2020 Mar 2:S1529-9430(20)30081-4.
13. Hirsch BP, Parrish JM, Jenkins NW, Khechen B, Haws BE, Patel DV, Yoo JS, Lamoutte EH, Karmarkar SS, **Colman MW**, Phillips FM, Singh K. Patient Perceptions of Physician Ownership in Spine Care. *Clin Spine Surg*. 2020 Mar 19.
14. Harada GK, Khan JM, Vetter C, Basques BA, Sayari AJ, Hayani Z, Tchalukov K, Louie PK, **Colman M**, An HS. Does the Number of Levels Fused Affect Spinopelvic Parameters and Clinical Outcomes Following Posterolateral Lumbar Fusion for Low-Grade Spondylolisthesis? *Global Spine J*. 2020 Jan 27:2192568220901527.
15. Khan JM, Basques BA, Harada GK, Louie PK, Chen I, Vetter C, Kadakia K, Elboghdady I, **Colman M**, An HS. Does Increasing Age Impact Clinical and Radiographic Outcomes Following Lumbar Spinal Fusion? *Spine J* Nov 12, 2019.
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17. Louie PK, Khan JM, Miller I, **Colman MW**. All-posterior total *en bloc* spondylectomy for thoracic spinal tumors. *Ann Transl Med*. 2019 May;7(10):227. doi: 10.21037/atm.2019.04.89.
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□ **Book chapters**

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