CURRICULUM VITAE

Matthew G. Cable, MD Musculoskeletal Oncology and Sarcoma Surgery

Current Title:

Assistant Professor - Clinical

Business Address:

LSU Health Science Center / School of Medicine in New Orleans Department of Orthopaedic Surgery 1542 Tulane Ave., Box T6-7 New Orleans, LA 70112

Business Telephone and Telefax:

P: 504-568-4680 F: 504-568-4466

Education:

Undergraduate

Tufts University

Degree: B.S., Biochemistry, Biomedical Engineering

Minor: Classical Greek Archeology

6/2005

Graduate/Medical

University of Chicago Pritzker School of Medicine (Medicine)

Degree: MD, 6/2009

Internship & Residency / Inclusive

Detroit Medical Center/Providence Hospitals Specialty: Orthopaedic Surgery 7/2009 – 6/2014

Fellowship – Sarcoma Advanced Clinical Research Fellow

University of Utah - Huntsman Cancer Institute & Primary Children's Hospital 8/2014 – 7/2016

Certification:

American Board of Orthopaedic Surgery Diplomat, effective dates 07/24/2018 – 12/31/2028

Academic, Professional, and Research Appointments:

Physician – Orthopaedic Oncology – Southern Louisiana Veterans Heath Care System New Orleans, LA 9/2017 – Present

Assistant Professor – Clinical Orthopaedics, LSUHSC

New Orleans, LA 9/2016 – Present

Visiting Instructor, Department of Orthopaedic Surgery

University of Utah

8/2014 - 7/2016

Current Clinical Privileges:

Children's Hospital – Main Campus, New Orleans, LA
Ochsner Medical CTR. – Kenner, Kenner, LA
University Medical Center (UMC), New Orleans, LA
Southeastern Louisiana Veterans Health Care System
(SLVHCS), New Orleans

9/2016 – Present (Active)
9/2016 – Present (Active)
9/2017 – Present (Active)

Membership in Professional Organizations:

American Academy of Orthopaedic Surgeons (2016)
Connective Tissue Oncology Society (2016)
Greater New Orleans Orthopaedic Society (2016)
Louisiana Orthopaedic Association (2016)
Musculoskeletal Tumor Society (2016)
Children's Oncology Group (2017)
National Cancer Institute, Cancer Therapy Evaluation Program, RCR Investigator (2018)

Scholastic Awards and Honors:

Resident research award, Second place, Current Orthopaedic Practice, 2015 Resident oral presentations, Second place, Detroit Academy of Orthopaedic Surgery, 2011 Calvin Fentress Research Fellowship Award, University of Chicago

Pritzer School of Medicine, 2008

Joseph B. Kirsner Research Award, University of Chicago/Pritzer School of Medicine, 2006 Summa cum laude, B.S., Tufts University, 2005 Max Tischler Prize Scholarship in Chemistry, Tufts University, 2004

National Society of Collegiate Scholars, Tufts University 2002

Medical School Teaching and Course Responsibilities – Lecture, Lab, Seminars:

Musculoskeletal Oncology Orthopaedic Residency Rotation, LSUHSC Department of Orthopaedic Surgery, University Medical Center New Orleans, LA. 2016 – present.

Lecturer for the LSU Critical Concepts course for 18-20 LSU medical students (180 total), with 1-1/2 hour of didactic lectures of various complex case discussions; 2016 – present.

Socratic Method Teaching Seminar – LSU medical school, participant, LSUHSC, New Orleans 5/29/2018.

Junior faculty panel member for LSU medical school ACGME site accreditation visit, 11/14/2017.

Lecturer and organizer for South Eastern Regional Orthopaedic In-training Review Course – LSUHSC, University Medical Center New Orleans, LA 8/26/2017.

Departmental/Interdisciplinary Conferences – Morning Report, Grand Rounds, Tumor Board, Departmental Seminar Series: (cont.)

"Proximal Tibial Replacements, Gastroc Rotational Flaps", Musculoskeletal Oncology Lectures and Cadaver Lab, LSUHSC Department of Orthopaedics, New Orleans, LA 6/28/2019.

"Relevant Orthopaedic Anatomy for Surgical Pathologists", LSUHSC Department of Pathology, New Orleans, LA 3/29/2019

"Spinal Tumors and Management", Two art lecture, LSUHSC Department of Orthopaedics, New Orleans, LA 3/20/19 and 6/26/19

"Proximal Femur Replacement", Musculoskeletal Oncology Lectures and Cadaver Lab, LSUHSC Department of Orthopaedics, New Orleans, LA 6/29/2018.

"Nerve Sheath Tumors", LSUHSC Department of Orthopaedics, New Orleans, LA 5/23/2018

"Metastatic bone disease", LSUHSC Department of Orthopaedics, New Orleans, LA 12/06/2017

"<u>Liposarcomas and Fatty Tumors</u>", LSUHSC Department of Orthopaedics, New Orleans, LA 11-22-2017.

"Soft Tissue Sarcomas", LSUHSC Department of Orthopaedics, New Orleans, LA 8/23/2017

"Primary bone malignancies", LSUHSC Department of Orthopaedics, New Orleans, LA 7/19/2017

"<u>Orthopaedic Tumor Cases</u>", Musculoskeletal Oncology Lectures and Cadaver Lab, LSUHSC Department of Orthopaedics, New Orleans, LA 3/3/2017.

"Soft Tissue Sarcomas", LSUHSC Pathology Department Grand Rounds, New Orleans, LA 12/21/2017.

"<u>Bone and Soft Tissue Musculoskeletal Tumors</u>", LSUHSC General Surgery Department Grand Rounds, New Orleans, LA 12/07/2017.

"<u>Sarcomagenesis</u>", Loyola Biology Department Seminar Lecture Series, New Orleans, LA 10/25/2016.

Departmental/Interdisciplinary Conferences – Morning Report, Grand Rounds, Tumor Board, Departmental Seminar Series: (cont.)

"Bone and Soft Tissue Musculoskeletal Tumors", LSUHSC General Surgery Department Grand Rounds, New Orleans, LA 9/22/2016.

Departmental/Interdisciplinary Conferences – Morning Report, Grand Rounds, Tumor Board, Departmental Seminar Series, Other:

Levels of Evidence in MSTS, University of Utah Grand Rounds, Salt Lake City, UT, 6/8/2016.

OITE Tumor Review, University of Utah Grand Rounds, Salt Lake City, UT 5/6/2016.

Concerning features of musculoskeletal neoplasms, University of Utah, Physical Medicine and Rehabilitation In-Service Education., Salt Lake City, UT, 2016

Osteonecrosis, Huntsman Cancer Institute, Bone Marrow Transplant In-Service Education, Salt Lake City, UT, 2015.

Epigenetics of Sarcomagenesis, University of Utah, Orthopaedic Grand Rounds, Salt Lake City, UT, 2015.

Orthobiologics, Detroit Medical Center Orthopaedic Grand Rounds, Detroit, MI, 2013.

Spinal Tumors, Detroit Medical Center Orthopaedic Grand Rounds, Detroit, MI, 2012.

OTA, The Painful Total Hip, Detroit Medical Center Orthopaedic Grand Rounds, Detroit, MI, 2011.

IRB/Grants/Contracts:

Irven Cahen Interdepartmental Research Grant - LSUHSC Department of Orthopaedic Surgery 2018-2019 – Targeting orphan nuclear receptor 4A2 (NR4A2) in Pigmented Villonodular Synovitis: a novel approach to suppress inflammation. IRB #9933

2018 LSU Resident Research Opportunity Award Recipient for summer research with an LSU medical student and orthopaedic resident. Applied towards work on PVNS.

RESEARCH EXPERIENCE:

CURRENT – LSUHSC and Children's Hospital New Orleans

Identifying involvement of inflammatory pathways and orphan receptor NR4A2 in pigmented villonodular synovitis and tenosynovial giant cell tumors.

Sarcoma Advanced Clinical and Research Fellow – Dedicated Research Year Huntsman Cancer Institute, University of Utah, 2014 - 2015

Elucidating the epigenetic effects of fusion oncogenes EWS-ATF1 and SYT-SSX in clear cell sarcoma and synovial sarcoma, respectively. ChIP-Seq techniques using solid tumors in murine models. Investigating SWI/SNF complex regulation in osteosarcoma and synovial sarcoma.

Orthopaedic Surgery Research Laboratory

Detroit Medical Center and Providence Hospitals, 2011 – 2014

Primary investigator developing in-vitro models for harvesting and sustaining human and animal chondrocytes. Analyzing effects of various drugs and orthopaedic related compounds in normal and simulated arthritic conditions.

Solway Laboratory Group, University of Chicago, Dept of Medicine Section of Pulmonary and Critical Care Medicine, 2006 - 2009

NIH-funded Pritzker Summer Research Program. Investigating effects of the mevalonate pathway on airway smooth muscle expression in asthma, including transfected cultured canine tracheal smooth muscle cells and murine en-vivo models.

Tufts Science and Technology Center, Polysaccharide Group Tufts University, Medford, MA, 2002 - 2005

Projects focusing on identifying proteins associated with emulsan, an anionic lipopolysaccharide and protein complex secreted by *Acinetobacter venetianus* RAG-1. Continuity through four consecutive summer undergraduate research fellowships.

ORAL PRESENTATIONS / NATIONAL:

Lerman DM, **Cable MG**, Thornley P, Evaniew N, Slobogean GP, Bhandari M, Healey JH, Randall RL, Ghert M. *Has the Level of Evidence of Podium Presentations at the Musculoskeletal Tumor Society Annual Meeting Changed Over Time?* 71st Annual Meeting of the Canadian Orthopaedic Association, Quebec City, QC., 2016.

Barrott J, Jin H, **Cable M**, Wang Y, Smith-Fry K, Jones KB. *PTEN Deletion in a Mouse Model of Synovial Sarcoma Results in a Pro-inflammatory Microenvironment that Generates Lung Metastases*. 20th Annual Meeting of the Connective Tissue Oncology Society, Salt Lake City, UT., 2016.

Holt PA, Lerman DM, **Cable MG**, Trent J, Jones KB, Randall RL. *Discovering Novel Small Molecules for Treating Synovial Sarcoma*. 20th Annual Meeting of the Connective Tissue Oncology Society, Salt Lake City, UT., 2015.

Carlson J, **Cable M**, Flynn J, Jackson N, Markel D. *Acute Effects of Local Anesthetics on Human Chondrocytes In Vitro in an Alginate Bead Model*. 31st Meeting of the Mid-America Orthopaedic Association, Amelia Island, FL., 2013.

ORAL PRESENTATIONS / NATIONAL: (cont.)

Lacy K, **Cable M**, Flynn J, Jackson N, Markel D. *PRP vs. Kenalog: An In Vitro Comparison of Gene Expression Changes in Osteoarthritic Human Chondrocytes*. 31st Meeting of the Mid-America Orthopaedic Association, Amelia Island, FL, 2013.

Cable M, Flynn J, Jackson N, Markel. D. *Alendronate Inhibits the Effects of IL-1 beta on Rat and Human Chondrocytes In Vitro*. 30th Meeting of the Mid-America Orthopaedic Association, Bonita Springs, FL., 2012.

Camoretti-Mercado B, Li X, Churchill J, Poon K, **Cable M**, McConville J, Cummings CT, Lee CG, Elias JA and Solway J. *Targeting the airway smooth muscle with statins as a potential treatment for asthma*. 51st Annual Aspen Lung Conference. Aspen. CO., 2008.

ORAL PRESENTATIONS / REGIONAL:

Carlson J, **Cable M**, Flynn J, Jackson N, Markel D. *Acute Effects of Local Anesthetics on Human Chondrocytes In Vitro in an Alginate Bead Model*. Michigan Orthopaedic Society Annual Scientific Meeting, Mackinac Island, MI, 2012.

Cable M, Flynn J, Jackson N, and Markel D. *In Vitro Rat and Human Model for Evaluating the Effects of IL-1 beta on Type II Chondrocytes*. Michigan Orthopaedic Society Annual Scientific Meeting, Mackinac Island, MI., 2011.

Cable M, Flynn J, Jackson N, and Markel D. *In Vitro Rat and Human Model for Evaluating the Effects of IL-1 beta and Alendronate on Type II Chondrocytes*. Detroit Academy of Orthopaedic Surgeons Annual Scientific Meeting, Troy, MI, 2011.

Editorial Posts and Activities (Reviewer):

Orthopedics, ad hoc reviewer, 2018 – present
OREF Resident Grant reviewer, 2017 – present
Journal of Surgical Oncology, ad hoc reviewer, 2017 – present
Sarcoma, ad hoc reviewer, 2017 – present
Bone & Joint Journal, ad hoc co-reviewer, 2014 – present
Annals of Surgical Oncology, ad hoc co-reviewer, 2014 – 2016
Clinical Orthopaedics & Related Research, ad hoc co-reviewer, 2014-2015
Journal of Bone & Joint surgery, ad hoc co-reviewer, 2014-2016
The Lancet Oncology, ad hoc co-reviewer, 2014 – 2016
Pediatric Drugs, ad hoc co-reviewer, 2014-2015

Editorial Posts and Activities (Guest / Invited):

Faculty of 1000 Oncology, Associate Faculty Member (Invited), 2015 – present Burden of Musculoskeletal Disease, Tumor section, Guest Editor, http://www.boneandjointburdon.org, 2015

BOOK CHAPTERS:

Osteosarcoma – Diagnosis, Mechanisms, and Translational Developments, 2019 pending: **Cable MG ed.**, InTech. ISBN 9789535166634

Barnett S, **Cable MG**. Integrating Basic Science with a Multidisciplinary Clinical Approach for Osteosarcoma, In: *Diagnosis, Mechanisms, and Translational Developments*, 2019 pending: **Cable MG** ed., InTech. ISBN 9789535166634

Cable MG, Randall RL. Characterizing Osteosarcoma Through PTEN and P13K – What p53 and Rb1, Can't Tell Us, In: *Osteosarcoma – Biology, Behavior, and Mechanisms*, 2017 Apr: Honoki K and Weiss K ed., InTech. ISBN 9789535130963.

Cable MG, Webber NP, Randall RL, Surgical Treatment of Benign Bone Lesions, In: *Insall and Scott: Surgery of the Knee 6th Edition*, 2017 Mar: O'Connor MI ed., Elsevier. ISBN 9780323400466.

Cable MG, Randall RL, Extremity Soft Tissue Sarcoma: Tailoring Resection to Histologic Subtype, In: *Surgical Oncology Clinics of North America: Contemporary Management and Controversies of Sarcoma*, 2016 Oct;25(4): 677-695. Raut CP ed., Elsevier. PMID: 28409421

Randall RL, **Cable MG**, Laack NNI, Chow WA, Bone Sarcomas, In: *Cancer Management: A Multidisciplinary Approach 17th Edition*, Haller DG ed., UBM Medica, Available online http://www.cancernetwork.com/cancer-management. 2016

Bielack S, Randall RL, **Cable MG** et al. Approach to Therapy: Osteosarcoma, In: *Sarcomas of Bone and Soft Tissues in Children and Adolescents*, Meyer WH and Hawkins D ed., Springer. 2015.

PEER REVIEWED JOURNAL ARTICLES / MANUSCRIPTS:

Holt P, Lerman D, **Cable MG**, Trent J, Jones KB, Randall RL. *Discovering Novel Small Molecules for Treating Synovial Sarcoma*. Sarcoma. Submitted

Jin H, Barrott JJ, **Cable MG**, Monument MJ, Lerman DM, Smith-Fry K, Nollner D, Jones KB. *The Impact of Microenvironment on the Synovial Sarcoma Transcriptome*. Cancer Microenviron. 2017 Dec;10(1-3):1-7. Epub 2017 Apr 13. PMID 28409421.

PEER REVIEWED JOURNAL ARTICLES / MANUSCRIPTS: (cont.)

Lerman DM, **Cable MG**, Thornley P, Evaniew N, Slobogean GP, Bhandari M, Healey JH, Randall RL, Ghert M. *Has the Level of Evidence of Podium Presentations at the Musculoskeletal Tumor Society Annual Meeting Changed Over Time?* Clin Orthop Relat Res. 2017 Mar;475(3):853-860. PMID: 26920571.

Barrott JJ, Illum B, Jin H, Zhu JF, Mosbruger T, Monument M, Smith-Fry K, **Cable M**, Wang Y, Capecchi M, Jones KB. *Beta-catenin stabilization enhances SS18-SSX2-driven synovial sarcomagenesis and blocks the mesenchymal to epithelial transition*. Oncotarget. 2015; 6(26):22758-22766. PMID: 26259251.

Cable MG, Jackson NM, Flynn JC, Markel DC. *Alendronate reverses increases in MMP13 due to IL-1B stimulation in human chondrocytes in vitro*. Curr Orthop Pract. 2015; 26(4): 336-342.

PEER REVIEWED EDITORIALS:

Randall RL, Cable MG. *Nominal Nomograms and Marginal Margins - What is the Law of the Line?* Lancet Oncol. 2016; 17(5): 554-556. PMID: 27301026.

Randall RL, Cable MG. *The role of molecular testing in soft tissue sarcoma diagnosis*. <u>Lancet</u> Oncol. 2016; 17(4): 415-416. PMID: 26970671.

Randall RL, Cable MG. *Trabectedin tactics: from sea squirts to sarcomas*. Lancet Oncol. 2015; 16(3): 243-244. PMID: 25752546.

PUBLISHED ABSTRACTS:

Jin H, Lerman DM, **Cable MG**, Barrott J, Mosbruger T, Wang Y, Smith-Fry K, Monument MJ, Jones KB. *Paired Comparative Transcriptome Analysis of Synovial Sarcomas and their Derivative Cell Lines*. 20th Annual Meeting of the Connective Tissue Oncology Society, Salt Lake City, UT. (2015).

Mosley-Brown A, Li X, Poon K, Serban K, **Cable M**, Kogut P, Camoretti-Mercado B. *Localization of TGF-beta Receptors within the Nuclei of Human Airway Smooth Muscle Cells*. Am J Resp Crit Care Med. 2010; 181: A5315.

Robinson S, **Cable M**, Cohn A, Li X, Mosley-Brown A, Arredondo M, Serban K, Camoretti-Mercado B. *The IL-10 Promoter Function is Inhibited by TGF-beta and Partially Rescued by Statin Co-treatment*. Am J Resp Crit Care Med. 2010; 181: A2305.

Camoretti-Mercado B, Churchill J, **Cable M**, Li X, Ma L, Lee CG, Elias JA, and Solway J. Lovastatin inhibits the development of airway hyperresponsiveness and remodeling induced by chronic TGF-beta exposure. Am J Resp Crit Care Med. 2007; 175: A162.

PUBLISHED UNSOLICITED REVIEWS:

Cable M and Randall R: F1000Prime Recommendation of [Posch F, et al., Clin Orthop Relat Res 2017 Jan 12]. In F1000Prime, 02 Feb 2017; DOI of 10.3410/f.727203406.793527798.

Randall R and **Cable M**: F1000Prime Recommendation of [Bill KL et al., Clin Cancer Res 2015 epub ahead of print]. In F1000Prime, 26 Nov 2015; DOI 10.3410/f.725855262.793511567.

Randall R and **Cable M**: F1000Prime Recommendation of [Hilven PH et al., Bone Joint J 2015, 97-B(6):853-61]. In F1000Prime, 07 Sep 2015; DOI: 10.3410/f.725753399.793509403.

Randall R and **Cable M**: F1000Prime Recommendation of [El-Naggar AM et al., Cancer Cell 2015, 27(5):682-97]. In F1000Prime, 30 Jul 2015; DOI: 10.3410/f.725486290.793508155.

POSTER PRESENTATIONS:

Barrott J, Zhu J, Burrell L, Jin H, Smith-Fry K, Wang Y, **Cable M**, Yap J, Jones KB. *Targeting Apoptosis in Synovial Sarcoma*. 20th Annual Meeting of the Connective Tissue Oncology Society, Salt Lake City, UT., (2015).

Lerman DM, **Cable MG**, Thornley P, Evanview N, Slobogean GP, Bhandari M, Healey JH, Randall RL, Ghert M. *Evidence over time: Has the MSTS moved towards higher level of evidence?* 20th Annual Meeting of the Connective Tissue Oncology Society, Salt Lake City, UT., (2015).

Lerman DM, **Cable MG**, Thornley P, Evanview N, Slobogean GP, Bhandari M, Healey JH, Randall RL, Ghert M. *Evidence over time: Has the MSTS moved towards higher level of evidence?* Combined meeting of ISOLS/MSTS, Orlando, FL., (2015).

Cable M, Flynn J, Jackson N, Markel D. *In Vitro Model for Evaluating the Effects of Interleukin-1 Beta and Alendronate on Type II Chondrocytes.* Orthopaedic Research Society Annual Meeting, San Antonio, TX., (2013).

07/06/2019