Curriculum Vitae 2/27/2019

Bryan J. Loeffler, M.D.

OrthoCarolina 1915 Randolph Road Charlotte, NC 28207 Phone: 704.323.3521

Scientific Podium Presentations International

Limited glenohumeral horizontal adduction in children with brachial plexus birth palsy: A contributor to scapular winging. Letourneau P., Zlotolow D., Russo S., **Loeffler BJ**., Kozin S., Richards J., Ashworth S. Narakas Brachial Plexus Surgery Symposium 2013 (Montreaux, Switzerland)

Outcomes after fixation of ankle fractures with syndesmotic injuries: Should the syndesmotic screw be removed? Hamid N, **Loeffler B**, Anderson RB, Cohen BE, Davis WH, Jones CP, Kellam JF, Sims SH, Bosse MJ. Société Internationale de Chirurgie Orthopédique et de Traumatologie Annual Meeting 2008 (Hong Kong, China)

Use of Cell Saver in Acetabular Fracture Surgery: Does intraoperative red blood-cell salvage and autotransfusion reduce the need for blood transfusion? Scannell BP, **Loeffler BJ**, Bosse MJ, Kellam JF, Sims SH, Norton HJ, Société Internationale de Chirurgie Orthopédique et de Traumatologie, Annual Meeting 2008 (Hong Kong, China)

National

Macknet D, Marinello PG, **Loeffler BJ**, Gaston RG. Early versus Delayed Total Elbow Arthroplasty for Distal Humerus Fractures. AAOS Annual Meeting 2019. Las Vegas, NV (accepted)

Loeffler BJ, Pierrie SN, Gaston RG. Early Targeted Muscle Reinnervation Does Not Increase Complications After Upper Extremity Amputation. HS98. AAHS Annual Meeting 2019. Palm Desert, CA.

Macknet D, Marinello PG, **Loeffler BJ**, Gaston RG. Complications of Early Versus Delayed Total Elbow Arthroplasty in the Treatment of Distal Humerus Fractures. AAHS Annual Meeting 2019. Palm Desert, CA.

Loeffler BJ, Pierrie SN, Gaston RG. Forearm Targeted Muscle Reinnervation. AAHS Annual Meeting 2019. Palm Desert, CA.

Kruse L, Gaston G, **Loeffler B**, Lewis DR, Chadderdon RC: Celestone versus Ketorolac Injection for the Treatment of DeQuervain's Tenosynovitis: Results of a Double-Blind Randomized Clinical Trial. AAHS 2018 Annual Meeting. #HS31, Phoenix, AZ.

Ford SE, Andersen JS, Macknet DM, Connor PM, **Loeffler B**, Gaston G. Major Complications after Distal Biceps Tendon Repairs: A Retrospective Cohort Analysis of over 1,000 cases. AAHS 2018 Annual Meeting. #HS46. Phoenix, AZ

Chadderdon RC, Gaston RG, Loeffler BJ, Lewis DR: Betamethasone versus Ketorolac Injection for the Treatment of De Quervain's Tenosynovitis: A Double-Blind Randomized Clinical Trial. ASSH Annual Meeting 2017. AAOS Annual Meeting 2018.

Infection rates in Open Hand Fractures: Can treatment be delayed? Tait MA, Osier LK, Odum S, Gaston RG, Loeffler BJ, Chadderdon RC, Ward AW

- AAHS Annual Meeting 2017 Jan 10-14; Waikoloa, HI.
- AAOS Annual Meeting 2017 Mar 14-18; San Diego, CA.

Lymphedema following elective hand and wrist surgery in women who are post axillary lymph node dissection: A prospective, cohort study. Gaston RG, Osier LK, Lewis DR, Loeffler BJ, Chadderdon RC, Ward WA, Hammert WC, Chung KC, Wolf JM.

- American Society for Surgery of the Hand Annual Meeting 2016. Austin, TX.
- AAHS Annual Meeting 2017; Waikoloa HI.

A Novel Muscle Transfer for Independent Digital Control with Myoelectric Prosthesis. **Loeffler BJ**, Tait MA, Bracey JW, Gaston RG. International Symposium on Innovations in Amputation Surgery and Prosthetic Technologies (IASPT). Chicago, May, 2016.

Complications with the use of BMP-2 in scaphoid nonunion surgery. Brannan P, Lewis D, **Loeffler BJ**, Gaston RG. Paper #13. American Society for Surgery of the Hand, Sept 2015 (Seattle, WA)

Appropriateness of Angiography and Embolization in the Management of High-Energy Pelvic Ring Injuries. Griffin SM, Nelson KJ, **Loeffler BJ**, Scannell BP, Bosse MJ, Kellam JF, Sims SH, Sing RF, Wang EA, Paper #63, Orthopaedic Trauma Association, Annual Meeting Oct. 2012 (Minneapolis, MN)

Donor site morbidity with anterior iliac crest bone grafting for long bone nonunions. **Loeffler BJ**, Kellam JF, Sims SH, Bosse MJ. Paper #341. American Academy of Orthopaedic Surgeons Annual Meeting, March 2010 (New Orleans, LA)

Reverse Glenoid Component Fixation: Is a Posterior Screw Necessary? Hoenig M, **Loeffler B**, Brown S, Peindl RD, Fleischli JE, Connor PM, D'Alessandro DF. Podium #444, American Academy of Orthopaedic Surgeons Annual Meeting, Feb 2009 (Las Vegas, NV)

Indications and Complications of Angiography and Embolization in the Management of High Energy Pelvic Ring Injuries. **Loeffler BJ**, Scannell BP, Bosse MJ, Kellam JF, Sims SH, Wise C, White J, Orthopaedic Trauma Association, Annual Meeting Oct. 2008 (Denver, CO). Presentation featured in *Orthopaedics Today*, December 2008.

Clinical and radiographic outcomes after fixation of ankle fractures with syndesmotic injuries: Should the syndesmotic screw be removed? Hamid N, Loeffler B, Anderson

RB, Cohen BE, Davis WH, Jones CP, Kellam JF, Sims SH, Bosse MJ. American Orthopaedic Foot and Ankle Society Annual Meeting, June 2008 (Denver, CO). Presentation featured in *Orthopaedics Today*, October 2008.

Increased Incidence of False Positive Rotator Cuff Pathology in MRI's of Patients with Adhesive Capsulitis. Brown SL, **Loeffler BJ**, Connor PM, D'Alessandro DF, Paper # 17, American Shoulder and Elbow Surgeons Open Meeting March 2008 (San Francisco, CA)

TGF-beta-3 and Three-dimensional Culture Favor Induction of a Disc-like Phenotype in Adipose-derived Mesenchymal Stem Cells. Tapp H, Gruber HE, Deepe R, Ingram JA, **Loeffler BJ**, Kuremsky MA, Hanley EN, 54th Annual Meeting of the Orthopaedic Research Society, March 2008 (San Francisco, CA)

Efficacy of Intraoperative Red Blood-Cell Salvage and Autotransfusion in the Treatment of Acetabular Fractures. Scannell BP, **Loeffler BJ**, Bosse MJ, Kellam JF, Sims SH, Norton HJ. American Academy of Orthopaedic Surgeons Annual Meeting 2008 (San Francisco, CA)

Regional

Greenbrier Research Summit; 2018 June; Greenbrier, WV Loeffler BJ: Patient Reported Outcomes

Oscar Miller Day, OrthoCarolina. 2017 Oct. Charlotte, NC.

Loeffler BJ

Stiff Elbow: How to avoid and how to treat

Longitudinal Forearm Instability: How to avoid missing it and how to deal with it The Starfish Procedure for Partial Hand Amputations

Greenbrier Research Summit; 2017 June; Greenbrier, WV

Loeffler BJ

Rotator Cuff Injury and Disease Superior Capsular Reconstruction

Loeffler BJ. Nerve Transfers a Hand Surgeon Might Not Know but May Consider (Radial to Axillary, Tibial to Peroneal). OrthoCarolina Bread, Butter, and Beyond: A Course on Peripheral Nerve and Soft Tissue Reconstruction of the Upper Extremity. Charlotte, NC 2016 Nov 19.

Novel muscle transfers to achieve independent digital control of a myoelectric prosthesis. **Loeffler BJ**, Gaston RG. North Carolina Orthopaedic Association 2016. Pinehurst, NC

Prevalence of depression and post-traumatic stress disorder in patients with brachial plexus injuries. **Loeffler BJ**, Brannan P, Gaston RG, Lewis DL. North Carolina Orthopaedic Association 2016. Pinehurst, NC

Longitudinal Forearm Instability. **Loeffler BJ**. TriMed Upper Extremity Course, Charlotte, NC. April, 2016

Olecranon Fractures. **Loeffler BJ**. TriMed Upper Extremity Course, Charlotte, NC. April, 2016

Adult and pediatric brachial plexus injuries. **Loeffler BJ**. University of South Carolina Department of Orthopaedic Surgery. June 2015.

Scapholunate Ligament Injuries. **Loeffler BJ**. OrthoCarolina 28th Annual Sports Medicine Symposium: Athletic Injuries of the Elbow, Wrist and Hand. Charlotte, NC 2014.

Physical Examination of the Sports Elbow, Wrist, and Hand. **Loeffler BJ**. OrthoCarolina 28th Annual Sports Medicine Symposium: Athletic Injuries of the Elbow, Wrist and Hand. Charlotte, NC 2014

Management of Adolescent Supracondylar Humerus Fractures. **Loeffler BJ**, Gaston RG, Casey VF, Brighton BK, Frick SL. Carolinas Medical Center Department of Orthopaedic Surgery Resident Research Day 2011.

Donor Site Morbidity after Anterior Iliac Crest Bone Grafting for Fracture Nonunions. **Loeffler BJ**, Kellam JF, Sims SH, Bosse MJ. North Carolina Orthopaedic Association Annual Meeting 2009.

Anterior Cruciate Ligament Fixation Devices. Scannell BP, **Loeffler BJ**, Hoenig M, Brown S, Connor PM, D'Alessandro DF, Fleischli JE, Peindl RD, North Carolina Orthopaedic Association Annual Meeting 2008, Second Prize Resident Paper Competition.

Angiography for Pelvic Fractures. **Loeffler BJ**, Scannell BP, Kellam JF, Sims SH, Bosse MJ. North Carolina Orthopaedic Association Annual Meeting 2008, Third Prize Resident Paper Competition.

Syndesmotic Screw Removal. Hamid N, **Loeffler B**, Anderson RB, Cohen BE, Davis WH, Jones CP, Kellam JF, Sims SH, Bosse MJ North Carolina Orthopaedic Association Annual Meeting 2008.

Cell Saver Use in the Treatment of Acetabular Fractures. Scannell BP, **Loeffler BJ**, Bosse MJ, Kellam JF, Sims SH, Norton HJ. North Carolina Orthopaedic Association Annual Meeting 2007, Second Prize Resident Paper Competition.

Poster Presentations

Pierrie SN, Loeffler BJ, Gaston RG. Targeted Muscle Reinnervation for Transradial Amputations. AAOS Annual Meeting 2019. Las Vegas, NV.

Marinello PG, Lewis D, Gaston RG, **Loeffler BJ**. Celebrating 100 Years of the Steindler Flexorplasty: A Systematic Review of Literature, Description of Current Technique, and Outcomes. HS EP126. AAHS Annual Meeting 2019. Palm Desert, CA.

Dart SE, Marinello PG, Ferrara L, **Loeffler BJ**. Biomechanical Analysis of Reconstruction Techniques for Longitudinal Forearm Instability. AAHS Annual Meeting 2019. Palm Desert, CA.

Barber J, Loeffler B, Gaston RG, Lourie GM. Excision of Incomplete Hook of the Hamate Fractures in Competitive Athletes. ASSH 2018 Annual Meeting. Boston, MA

Ford SE, Andersen JS, Macknet DM, Connor PM, **Loeffler B**, Gaston G. Major Complications after Distal Biceps Tendon Repairs: A Retrospective Cohort Analysis of 930 cases. AAOS 2018 Annual Meeting

Comparison of Asymmetric Reaming Versus a Posteriorly Augmented Component. Ko Kevin, **Loeffler BJ**, Paxton ES, Syed U, Getz G, Barlow J, Abboud JA, Williams GR. America Academy of Orthopaedic Surgeons Annual Meeting March 2016 (Orlando, FL) Poster #P326

Knee Arthroscopy Simulation Training: Does It Translate to Improved Arthroscopic Proficiency in the Wrist? Ode G, **Loeffler BJ**, Chadderdon, RC, Haines N, Scannell BP, Patt JC, Gaston RG: American Society for Surgery of the Hand Annual Meeting Sept 2015 (Seattle, WA).

Knee Arthroscopy Simulation Training: Does It Translate to Improved Arthroscopic Proficiency in the Wrist? (e-Poster). Ode G, **Loeffler BJ**, Chadderdon, RC, Haines N, Scannell BP, Patt JC, Gaston RG: American Association for Hand Surgery Annual Meeting 2015 (Paradise Island, Bahamas).

Diagnostic accuracy of non-contrast MRI for detecting glenohumeral cartilage lesions: A prospective comparison to arthroscopy. VanBeek C, **Loeffler BJ**, Narzikul A, Gordon V, Rasiej MJ, Kazam JK, Abboud JA: American Orthopaedic Association / Canadian Orthopaedic Association Combined Meeting 2014. (Montreal, Quebec)

Adolescent Supracondylar Humerus Fractures: Multi-Center Study of Management and Outcomes. Scannell BP, **Loeffler BJ**. et al. ePoster presentation #83. Pediatric Orthopaedic Society of North America Annual Meeting, 2014 (Hollywood, CA).

Limited Glenohumeral Motion in Children with Brachial Plexus Birth Palsy: A contributor to Scapular Winging. (e-Poster). Russo S., **Loeffler BJ**., Zlotolow D., Kozin S., Richards J., Ashworth S. American Society for Surgery of the Hand Annual Meeting, 2013 (San Francisco, CA).

Management and Outcomes Of Adolescent Supracondylar Humerus Fractures.

Loeffler BJ, Frick SL, Gaston RG, Brighton BK, Casey VF, Earles M, Jeray KJ, Cannada LK, Bissing D, Hymes RA. Poster # 174. Orthopaedic Trauma Association Annual Meeting, 2012 (Minneapolis, MN).

Augmentation of Tendon-Bone Healing with the Utilization of Cell-Based Tissue Engineering in a Rat Supraspinatus Model" Scannell B, **Loeffler BJ**, Gruber HE, Connor PM, Peindl RD, Hanley EN Orthopaedic Research Society Annual Meeting 2010 (New Orleans, LA).

Retrospective Comparison of BMP-2 versus Iliac Crest Bone Grafting in the Treatment of Tibial Shaft Non-Union, Starman J, **Loeffler BJ**, Bosse MJ, Kellam JF, Sims SH, Poster #102, Orthopaedic Trauma Association Annual Meeting, 2009 (San Diego, CA).

Prostaglandin E1 and Misoprostol Increase Epidermal Growth Factor Production in 3D-Cultured Human Annulus Cells. Gruber HE, Hoelscher G, **Loeffler B**, Chow Y, Hanley EN. Cervical Spine Research Society, Dec 2008 (Austin, TX).

Indications and Complications of Angiography and Embolization in the Management of High Energy Pelvic Ring Injuries. **Loeffler BJ**, Scannell BP, Bosse MJ, Kellam JF, Sims SH, Sing R. American Association for the Surgery of Trauma, 2008 (Maui, Hawaii) and American Academy of Orthopaedic Surgeons Annual Meeting 2009 (Las Vegas, NV)

Short to Intermediate Term Outcomes after Treatment of Femoral Head Fractures Associated with Acetabular Fractures. **Loeffler BJ**, Cannada L, Kellam JF, Obremskey WT, Sims SH, Bosse MJ. Poster #61, Orthopaedic Trauma Association Annual Meeting 2008 (Denver, CO)

Outcomes after fixation of ankle fractures with syndesmotic injuries: Should the syndesmotic screw be removed? Hamid N, **Loeffler B**, Anderson RB, Cohen BE, Davis WH, Jones CP, Kellam JF, Sims SH, Bosse MJ. Orthopaedic Trauma Association Annual Meeting 2008 (Denver, CO)

Bioavailability of PAPP-A, the local regulator of IGF-I (Insulin-like Growth Factor-I), in the intervertebral disc. Gruber HE, Hoelscher G, Ingram JA, **Loeffler B**, Kuremsky M, Zinchenko N, Hanley EN, Jr.. AO 2nd International Symposium on Biotechnology in Musculoskeletal Repair, Oct. 2008 (Lausanne, Switzerland)

Incidence of False Positive Rotator Cuff Pathology in MRI's of Patients with Adhesive Capsulitis. Brown SL, **Loeffler BJ**, Connor PM, D'Alessandro DF, American Academy of Orthopaedic Surgeons Annual Meeting 2008 (San Francisco, CA)

Pregnancy-associated Plasma Protein-A (PAPP-A), a Local Regulator of IGF-I (Insulinlike Growth Factor-I) Bioavailability in the Intervertebral Disc. Gruber HE, Hoelscher GL, Ingram JA, **Loeffler B**, Kuremsky M, Zinchenko N, Hanley, EN, Jr. 54th Annual Meeting of the Orthopaedic Research Society, March 2008, (San Francisco, CA)

Telomerase Transduced Osteoarthritis Fibroblast-like Synoviocytes Display a Distinct Gene Expression Pattern. Sun Y, **Loeffler BJ**, Firestein GS, Mauerhan DR, Gruber HE, Hanley EN, Jr. 54th Annual Meeting of the Orthopaedic Research Society, March 2008, (San Francisco, CA)

Effect of Phosphate on Arthritis-derived Fibroblast-like Synoviocytes. Sun Y, Chaturvedi D, Mauerhan DR, Loeffler BJ, Gruber HE, Hanley EN, Jr. Annual Conference of American Collage of Rheumatologists Nov.2007 (Boston, MA)

Microarray Analysis of Human Telomerase Transduced Osteoarthritis Fibroblast-like Synoviocytes. Sun Y, **Loeffler BJ**, Firestein GS, Mauerhan DR, Gruber HE, Hanley EN, Jr. Annual Conference of American Collage of Rheumatologists Nov.2007 (Boston, MA)

Efficacy of Intraoperative Red Blood-Cell Salvage and Autotransfusion in the Treatment of Acetabular Fractures, Scannell BP, **Loeffler BJ**, Bosse MJ, Kellam JF, Sims SH, Poster #69, Orthopaedic Trauma Association Annual Meeting 2007 (Boston, MA)

Research Grants

Finding the Ideal Surgical Skin Preparation to Prevent *P. acnes* Infection in Shoulder Surgery

CareFusion, \$8,890

Winkler Orthopaedic Research Fund, \$3,390

Loeffler BJ, Montijo H, Connor PM, D'Alessandro DF, Fleischli JE, Piasecki DP 2011-2012

Role: Principal Investigator

Morbidity at the Donor Site after Iliac Crest Bone Graft Harvest: A prospective, observational study

Loeffler BJ, Bosse MJ, Kellam JF, Sims SH

Charlotte-Mecklenburg Health Services Foundation, \$5,676.25

1/01/07-1/01/10

Role: Principal Investigator

The Natural History and Outcomes Following Treatment of Femoral Head

Fractures: A multicenter review

Loeffler BJ, Bosse MJ, Kellam JF, Sims SH Southeast Fracture Consortium, \$5,000 1/01/07-1/01/09

Role: Principal Investigator

Biomechanical Comparison of Five Devices for Hamstring Tendon Fixation for Anterior Cruciate Ligament Reconstruction on the Femoral and Tibial Sides in a Cadaveric Porcine Model. Hoenig M, Scannell BP, Loeffler BJ, Brown S, Fleischli J, Connor PM, D'Alessandro DF

Winkler Orthopaedic Fellowship Fund, \$45,000

5/1/07 - 12/31/08

Role: Principal Investigator

Cell-Based Augmentation of Tendon-to-Bone Healing in a Rat Model of Rotator Cuff Repair

Loeffler BJ, Scannell BP, Gruber HE, Sun Y, Peindl R, Hanley EN Winkler Orthopaedic Fellowship Fund, \$39,500 1/1/07-12/31/08

Role: Principal Investigator

Biomechanical Comparison of Two Methods of Glenoid Component Fixation in "Reverse" Total Shoulder Arthroplasty

Loeffler BJ, Brown S, Connor PM, D'Alessandro DF, Fleishli J, Peindl RD Charlotte-Mecklenburg Health Services Foundation, \$5,324 1/01/07-12/31/08

Role: Principal Investigator

Results of Syndesmotic Ankle Injuries: Should the Syndesmotic Screw be Routinely Removed? Hamid N, Loeffler BJ, Bosse MJ, Kellam JF, Sims SH, Anderson RB, Cohen BE, Davis WH, Jones CP

Carolinas Healthcare System, Division of Education and Research, \$13,266.

7/1/07-6/30/08

Role: Co-Investigator

Examination of the Relationship between Osteoarthritis and Pathological Calcification

Sun Y, **Loeffler BJ**, Gruber HE Charlotte-Mecklenburg Health Services Foundation, \$30,000 9/01/2006 – 02/29/2008 Role: Co-Investigator

Derivation of Adult Mesenchymal Stem Cells from Human Adipose Tissue: A pilot study for extraction, characterization, and differentiation toward intervertebral disc-like cells

Tapp H, Gruber HE, **Loeffler BJ**, Hanley EN Charlotte-Mecklenburg Health Services Foundation, \$37,986.73 1/01/07-12/31/07 Role: Co-investigator

Pathological Calcification and Osteoarthritis

Sun Y, **Loeffler BJ**, Gruber HE, Frick SL, Hanley EN Mecklenburg County Medical Society, \$750 10/2006 – 10/2007 Role: Co-Investigator