

# Grant D. Shifflett, MD

Fellowship Trained Spine Surgeon

## EMPLOYMENT

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### **DISC Sports and Spine Center**

Mindanao Way, Suite 300

Marina Del Rey, CA 90292

P: (310) 574-0400

&

3501 Jamboree Road, Suite 1250

Newport Beach, CA 92660

P: (949) 988-7800

## EDUCATION

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### **Rush University Medical Center**

Fellowship in Adult and Pediatric Spinal Surgery

Chicago, IL 60612

### **Enfolded Traveling Fellowship – Pediatric Deformity and Complex Cervical Spinal Surgery**

Keio University Medical Center (Tokyo, Japan): Kote Watanabe, MD

Murayama Medical Center (Tokyo, Japan): Mitsuru Yagi, MD

Tokyo Medical and Dental University (Ichikawa, Japan): Tateru Shiraishi, MD, PhD

Meijo Hospital (Nagoya, Japan): Noriaki Kawakami, MD

### **Hospital for Special Surgery**

Resident in Orthopaedic Surgery

New York, NY 10021

### **New York-Presbyterian Hospital/New York Weill Cornell Medical Center**

Weill Medical College of Cornell University

Intern in General Surgery

New York, NY 10021

### **The University of Southern California, Keck School of Medicine**

Los Angeles, CA 90027

Doctor of Medicine, with *Highest Distinction*

### **The University of Virginia**

Charlottesville, VA 22902

Bachelor of Arts

Major: Neuroscience with *High Honors*

Minor: Religious Studies

## AWARDS AND HONORS

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2016	Scientific Paper Award - Eastern Orthopedic Association Annual Meeting
2015-2016	AOSpine North America Fellow
2015	Scientific Poster Award - American Academy of Orthopaedic Surgeons Annual Meeting
2015	Hospital for Special Surgery Spine Service Research Grant
2014-2015	Thomas Wickiewicz, MD Resident Research Grant Recipient (\$14,000)

2014	Andrew N. Swanson, MD Traveling Spine Fellowship Scholarship
2010	Alpha Omega Alpha Honor Society – USC Keck School of Medicine
2008-2010	Dean’s Recognition – USC Keck School of Medicine
2010	Achievement Rewards for College Scientists (ARCS) Scholar
2010	Walker Foundation Scholarship for academic achievement
2010	Dean Carmen A. Puliafito Scholarship for academic excellence
2010	Medical Faculty Wives and Friends Scholarship for academic excellence
2010	Medical Faculty Donor Scholarship for academic excellence
2009	Roger Egeberg Scholarship for academic achievement
2009	Balch Scholarship for excellence in extra-curricular service
2009	Dale E. Wilson Scholarship for academic excellence
2009	Frederick Napier Elliott Award for excellence in the art of medicine
2009	American Medical Association Education and Research Foundation Fund Clinical Award for top performing student during core clerkships
2008	Finalist for Eric Cohen Medical Humanities Award
2007	Baxter Foundation Research Grant Recipient, Summer Fellow
2006	Honors Thesis in Neuroscience, University of Virginia
2006	Lawn Resident, University of Virginia
2006	The Seven Society Distinguished Citizen honoree
2006	The Purple Shadows Community Service honoree
2004-2006	Dean’s List, University of Virginia

## **PUBLICATIONS**

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Lisle TC, Gazoni LM, Fernandez LG, Sharma AK, Bellizzi AM, **Shifflett GD**, Laubach VE, Kron IL. Lung injury after cardiopulmonary bypass is attenuated by adenosine A<sub>2A</sub> receptor activation. *Journal of Thoracic and Cardiovascular Surgery*. 136(5):1280-8, 2008. PMID: 19026816.

**Shifflett GD**, Serowka, KJ, Recabaren, JR, Kenney, PJ. The two largest parathyroid adenomas in the United States Literature. *The American Surgeon*. 76 (12); 1426-1428. 2010. PMID: 21268311.

**Shifflett GD**, Dy, CJ, Daliuski, A. Carpal tunnel surgery: patient preferences and predictors for satisfaction. *Journal of Patient Preference and Adherence*. 2012;6:685-9. PMID: 23055702.

Fabricant, PD, **Shifflett GD**, Dzenis, P. Technical trick: simple, no-hands retraction for lateral approach to the proximal femur. *Orthopedics*. 2013 Mar;36(3):196-8. PMID: 23464936.

**Shifflett GD**, Ek ETH, Weiland AJ. Spontaneous rupture of the extensor pollicis longus in a break-dancer. *Eplasty*. 2014 Jan 17;14:e4. PMID: 24501618

Berkes MB, Little MT, **Shifflett GD**, Garner MG, Helfet DL, Lorich DG. The Impact of Three Dimensional Computed Tomography Imaging on Intra- and Inter-observer Reliability of Proximal Humerus Fracture Classification and Treatment Recommendations. *Journal of Bone and Joint Surgery*. 2014 Aug 6;96(15):1281-1286. PMID: 25100775.

Nwachukwu, BU, Schairer, WW, **Shifflett GD**, Kellner DB, Sama AA. Cost Utility Analyses in Spine Care: A Qualitative and Systematic Review. *Spine (Phila Pa 1976)*. 2014 Oct 22. PMID: 25341977.

**Shifflett GD**, Athanasian EA, Lee SK, Weiland AJ, Wolfe SW. Proximal migration of hardware in patients undergoing midcarpal fusion with headless compression screws. *Journal of Wrist Surgery*. 2014 Nov;3(4):250-61. PMID: 25364638.

**Shifflett GD**, Green DW, Widmann R, Marx RG. Growth arrest following ACL reconstruction with hamstring autograft in skeletally immature patients: a review of four cases. *Journal of Pediatric Orthopedics*. 2015 Apr 6 [Epub ahead of print]. PMID: 25887820.

**Shifflett GD**, Bjerke-Kroll B, Nwachukwu B, Girardi FP, Sama AA, Cammisa FP, Hughes AP. The Value of Intra-operative Gram Stain In Revision Spine Surgery. *Spine J*. 2015 Jun 9. PMID: 26070285.

Martin CR, Halvorson J, LaMothe J, **Shifflett GD**, Helfet DL. Image-based techniques for percutaneous iliosacral screw start site localization. *Am J Orthop*. 2015 Jul;44(7):E204-6. PMID: 26161763.

Bjerke BT, Cheung ZB, **Shifflett GD**, Iyer S, Fabricant PD, Kim HJ. Maintenance of Derotation in Adolescent Idiopathic Scoliosis: a Novel Technique Measuring Postoperative Vertebral Rotation by Pedicle Screw Position. *HSS J*. 2016 Feb;12(1):18-25. PMID: 26855623.

Bjerke BT, Cheung ZB, **Shifflett GD**, Iyer S, Derman PB, Cunningham ME. Do Current Recommendations for Upper Instrumented Vertebra Predict Shoulder Imbalance? An Attempted Validation of Level Selection for Adolescent Idiopathic Scoliosis. *HSS J*. 2015 Oct;11(3):216-22. PMID: 26981056.

**Shifflett GD**, Bjerke-Kroll BT, Nwachukwu BU, Kueper, J, Koltsov, JB, Girardi FP, Sama AA, Cammisa FP, Hughes AP. Microbiologic profile of infections in presumed aseptic revision spine surgery. *Eur Spine J*. 2016 Mar 29. [ePub ahead of print]. PMID: 27026016.

Iyer S, Lenke LG, Nemani VM, Fu M, **Shifflett GD**, Albert TJ, Sides BA, Metz LN, Cunningham ME, Kim HJ. Variations in Occipitocervical and Cervicothoracic Alignment Parameters based on Age: A Prospective Study of Asymptomatic Volunteers using Full-Body Radiographs. *Spine (Phila Pa 1976)*. 2016 Apr 22. [ePub ahead of print]. PMID: 27116113.

Bjerke BT, Saiyed R, Cheung Z, **Shifflett GD**, Cunningham, M. Does Adolescent Obesity Affect Surgical Presentation and Radiographic Outcome for Patients with AIS? *J Pediatr Ortho B*. 2017 Jan;26(1):53-58.

Basques BA, Louie PK, **Shifflett GD**, Fice MP, Mayo BC, Massel DH, Guzman JZ, Bohl DD, Singh K. The Effect of Surgeon Volume on Complications, Length of Stay, and Costs following Anterior Cervical Fusion. *Spine*. 2017 Jul 1;42(13):E767-E774. PMID: 27831966.

Liu JN, **Shifflett GD**, Lee SK. Disruption of the Thumb Dorsal Extensor Mechanism In Two Catchers. *J Hand Microsurg*. 2016 Aug;8(2):118-9. PMID: 27625545.

Basques, BA, **Shifflett, GD**, Fice, MP, Espinoza-Orias, AA, Inoue, N, An, HS. The kinematics and spondylosis of the lumbar spine vary depending on the levels of motion segments in individuals with low back pain. *Spine*. 2016 Nov 9. [Epub ahead of print]. PMID: 27831966.

**Shifflett GD**, Hellman MD, Louie PK, Mikhail CM, Park KU, Phillips FM. Return to Golf After Lumbar Fusion. *Sports Health*. 2016 Nov 22. [ePub ahead of print]. PMID: 27879299.

Louie PK, Presciutti SM, Iantorno SE, Bohl DD, **Shifflett GD**, An HS. There is No Increased Risk of Adjacent Segment Disease at the Cervico-Thoracic Junction Following an Anterior Cervical Discectomy and Fusion to C7. *The Spine Journal*. 2017 Sep;17(9):1264-1271.

Sheha ED, Meredith D, **Shifflett GD**, Bjerke-Kroll BT, Iyer S, Shue J, Nguyen J, Huang RC. Postoperative Pain Following Posterior Iliac Crest Bone Graft Harvesting in Spine Surgery: A Prospective, Randomized Trial. *The Spine Journal*. 2017 Nov 14. [ePub ahead of print]. PMID: 29155001.

**Shifflett GD**, Phillips FM. Posterior cervical foraminotomy for the management of radiculopathy. Accepted to *Contemporary Spine Surgery*, 2016. *In Press*.

**Shifflett GD**, An HS. Upper cervical radiculopathy: the hidden pathology of the spine. Accepted to *Japanese Society of Spine Surgery and Related Research*, 2016. *In press*.

Uppstrom T, Bjerke BT, Saiyed R, Cheung Z, **Shifflett GD**, Cunningham ME. Proximal Junctional Kyphosis Following Arthrodesis for Adolescent Idiopathic Scoliosis: Radiographic Predictors, Technical Considerations, and Moving Forward. Submitted to *Spine Deformity*, 2016.

Slikker W, Espinoza-Orías AA, **Shifflett GD**, Lee JY, Siemionow K, Fogg L, Inoue N, An HS. Predictors of Dynamic Instability in Degenerative Spondylolisthesis. Submitted to *Global Spine Journal*, 2016.

Massel DH, Mayo BC, Long WW, Modi K, Lopez GD, **Shifflett GD**, Basques BA, Singh K. Minimally Invasive Transforaminal Lumbar Interbody Fusion: Comparison of Grade I versus Grade II Isthmic Spondylolisthesis. Submitted to *Spine*, 2016.

Uppstrom T, Bjerke BT, Saiyed R, Cheung ZB, **Shifflett GD**, Cunningham ME. Increased Lumbar Lordosis is Associated with Less Spontaneous Lumbar Curve Correction Following Selective Thoracic Fusion for Adolescent Idiopathic Scoliosis (AIS) in Lenke 1C and 2C Curves. Submitted to *The Spine Journal*, 2016.

Massel DH, Mayo BC, **Shifflett GD**, Bohl DD, Louie PK, Basques BA, Long WW, Modi KD, Singh K. Minimally Invasive Transforaminal Lumbar Interbody Fusion: Comparison of Isthmic Versus Degenerative Spondylolisthesis. Submitted to *Clinical Spine Surgery*, 2016.

Mayo BC, Massel DH, Bohl DD, Long WW, Modi KD, **Shifflett GD**, Singh K. Development of An Abridged SWAL-QOL Form to Assess Dysphagia Following Anterior Cervical Spine Surgery. Submitted to *Spine*, 2016.

Mayo BC, Massel DH, Bohl DD, Long WW, Modi KD, **Shifflett GD**, Singh K. Preoperative Mental Health May Not Be Predictive of Improvements in Patient Reported Outcomes Following a Minimally Invasive Transforaminal Lumbar Interbody Fusion. Submitted to *Spine*, 2016.

Basques BA, Massel DH, Mayo BC, **Shifflett GD**, Louie PK, Bohl DD, Singh K. Gender Differences for Anterior Cervical Discectomy and Fusion: Complications, Costs, and Length of Stay. Submitted to *Spine*, 2016.

Massel DH, Mayo BC, Louie PK, **Shifflett GD**, Bohl DD, Long WW, Modi KD, Singh K. Improvements in Back and Leg Pain Following a Minimally Invasive Transforaminal Lumbar Interbody Fusion. Submitted to *Clinical Orthopedics and Related Research*, 2016.

**Shifflett GD**, Basques BA, Khajavi K, Kanter A, Peterson MD, Phillips FM. A prospective, multi-center comparison of clinical outcomes between TLIF and LLIF for the treatment of degenerative spondylolisthesis at L4-5 at two-year follow-up. Submitted to Spine, 2017.

Massel DH, Mayo BC, Hijji FY, Bohl DD, Long WW, Modi KD, **Shifflett GD**, Singh K. Narcotic Consumption Following Minimally Invasive Lumbar Decompression: A Comparison Between Hospital and Ambulatory-Based Surgery Centers. Submitted to Spine, 2017.

**Shifflett GD**, Kaikous J, Goczalk MG, Basques BA, Louie PK, Phillips FM. Anterior Cervical Discectomy and Fusion with Stand-Alone PEEK Cages with Integrated Screws Compared to An Allograft and Plate Construct. Submitted to Spine, 2017.

Philip K. Louie, MD, Arya G. Varthi, MD; Ankur S Narain, MD; Victor Lei, BS, Daniel Bohl, MD, Grant D. Shifflett, MD, Frank M. Phillips, MD. Stand-alone Lateral Lumbar Interbody Fusion for the treatment of symptomatic Adjacent Segment Degeneration following Previous Lumbar Fusion. Submitted to Spine, 2017.

## BOOK CHAPTERS

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**Shifflett GD**, Shue J, O’Leary PF, Huang RC. Open transthoracic discectomy. In: “*Spine Surgery: Tricks of the Trade.*” Edited by Vaccaro A and Albert T. New York: Thieme Publishers, 2015. *In press.*

**Shifflett GD**, Phillips FM. Posterior percutaneous foraminotomy of the cervical spine. In: “*Minimally Invasive Spine Surgery.*” Edited by Anderson DG, Tannoury C, and Tannoury T. Philadelphia: Lippincott, Williams, and Wilkins, 2015. *In press.*

Louie PK, Mayo BC, Massel DH, **Shifflett GD**, Long W, Modi, K, Singh K. TLIF/PLIF MIS Option. In: “*Minimally Invasive Spine Surgery.*” Edited by Anderson DG, Tannoury C, and Tannoury T. Philadelphia: Lippincott, Williams, and Wilkins, 2015. *In press.*

Sheha E, **Shifflett GD**, Almaieeh, M, Huang RC. Ileus and gastrointestinal complications in lateral lumbar surgery. In: “*Lateral lumbar surgery.*” Edited by Sama AA. New York: Thieme Publishers, 2015. *In press.*

Louie PK, Basques BA, **Shifflett GD**. Pseudarthrosis. In: “*Minimally Invasive Spine Surgery: Surgical Techniques and Disease Management.*” Edited by Phillips FM, Lieberman IH, Polly DW, and Wang MY. New York: Springer Publishers, 2017. *In press.*

## PRESENTATIONS

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Louie PK, Varthi AG, Narain AS, Lei V, Bohl DD, **Shifflett GD**, Phillips FM. Stand-alone Lateral Lumbar Interbody Fusion for the treatment of symptomatic Adjacent Segment Degeneration following Previous Lumbar Fusion. Podium Presentation: 2017 Annual Meeting of the Society for Minimally Invasive Surgery of the Spine. Las Vegas, NV. Sept 14-16, 2017.

**Shifflett GD**, Phillips FM, Torstrick B, Guldborg R, Gall K. Osseointegration Performance and Durability of a Porous PEEK Interbody Fusion Device. Podium Presentation: 2017 Annual Meeting of the Society for Minimally Invasive Surgery of the Spine. Las Vegas, NV. Sept 14-16, 2017.

**Shifflett GD**, Kaikaus J, Goczalk MG, Basques BA, Louie PK, Phillips FM. Anterior Cervical Discectomy and Fusion with Stand-Alone PEEK Cages with Integrated Screws Compared to An Allograft and Plate Construct. Podium Presentation: 2017 Annual Meeting of the International Society for the Advancement of Spinal Surgery. Boca Raton, FL. Apr 12-14, 2017.

**Shifflett GD**, Emerson JT, Johnson HE, Basques BA, Birlingmair JA, McKinney DP, Chou OB, Louie PK, An HS. Degenerative Cervical Spondylolisthesis: Does Adjacent Level Surgical Stabilization Result In Progressive Listhesis? Podium Presentation: 2016 Annual Meeting of the Cervical Spine Research Society. Toronto, ON, Canada. Nov 30-Dec 3, 2016.

**Shifflett GD**, Kaikaus J, Goczalk MG, Basques BA, Louie PK, Phillips FM. Anterior Cervical Discectomy and Fusion with Stand-Alone PEEK Cages with Integrated Screws Compared to An Allograft and Plate Construct. Podium Presentation: 2016 Annual Meeting of the Cervical Spine Research Society. Toronto, ON, Canada. Nov 30-Dec 3, 2016.

Basques BA, Louie PK, **Shifflett GD**, Mayo BC, Massel DH, Bohl DD, Singh K. The Effect of Surgeon Volume on Complications, Length of Stay, and Costs following Anterior Cervical Fusion. Podium Presentation: 2016 Annual Meeting of the Cervical Spine Research Society. Toronto, ON, Canada. Nov 30-Dec 3, 2016.

Basques BA, Espinoza-Orias A, **Shifflett GD**, Fice MP, Andersson GB, An H, Inoue N. Lumbar Spine Kinematics and Spondylosis Vary By Motion Segment Level In Individuals with Low Back Pain. Podium Presentation: 2016 Annual Meeting of the North American Spine Society. Boston, MA. Oct 26-29, 2016.

Massel, DH, Mayo, B, Ahn, J, Bohl, DD, Louie, P, **Shifflett, GD**, Narain, AS, Hijji, FY, Modi, K, Long, WW, Aboushaala, KA, Singh, K. The Impact of Local Steroid Application on Dysphagia Following an Anterior Cervical Discectomy and Fusion: Preliminary Results of a Prospectively, Randomized, Single Blind Trial. Podium Presentation: 2016 Annual Meeting of the North American Spine Society. Boston, MA. Oct 26-29, 2016.

Louie PK, Presciutti SM, Iantorno SE, Bohl DD, **Shifflett GD**, An HS. There is No Increased Risk of Adjacent Segment Disease at the Cervico-Thoracic Junction Following an Anterior Cervical Discectomy and Fusion to C7. Podium Presentation: 2016 Annual Meeting of the North American Spine Society. Boston, MA. Oct 26-29, 2016.

Basques BA, Louie PK, **Shifflett GD**, Fice MP, Mayo BC, Massel DH, Guzman JZ, Bohl DD, Singh K. The Effect of Surgeon Volume on Complications, Length of Stay, and Costs following Anterior Cervical Fusion. Podium Presentation: 2016 Annual Meeting of the North American Spine Society. Boston, MA. Oct 26-29, 2016.

**Shifflett GD**, Iyer S, Sheha E, Bjerke-Kroll BT, Nguyen JT, Huang RC. Postoperative pain following posterior iliac crest bone graft harvesting in spine surgery: a prospective randomized clinical trial. Podium Presentation: 2016 Annual Meeting of the Eastern Orthopedic Association, New Orleans, LA, Oct 19-22, 2016. \*Resident/Fellow Research Award Winner\*

**Shifflett GD**, Urban MK, Garvin S, Ho MC, Iyer C, Dehipawala S, Buschiazzi V, Nguyen JT, Fields K, Hughes AP, Sama AA, Huang RC. Does Chewing Gum Hasten the Return of Bowel Function Post-operatively In Patients Undergoing Spinal Surgery? Podium presentation: 2016 International Meeting on Advanced Spine Techniques. Washington, D.C., July 13-16, 2016.

**Shifflett GD**, Emerson JT, Johanson HE, Basques BA, Birlingmair JA, McKinney DP, Chou PH, Louie PK, An HS. Degenerative Cervical Spondylolisthesis: Does Adjacent Level Surgical Stabilization Result In Progressive Listhesis? Presented at the 2016 Rush University Annual Thesis Day. Chicago, IL. June 17, 2016.

**Shifflett GD**, Sheha, E, Bjerke-Kroll BT, Iyer C, Nguyen JT, Huang RC. Postoperative pain following posterior iliac crest bone graft harvesting in spine surgery: a prospective randomized clinical trial. Podium Presentation: 2016 Annual Meeting of the American Academy of Orthopaedic Surgeons, Orlando, FL, March 1 – 5, 2016.

Iyer S, Lenke LG, Nemani VM, Fu M, **Shifflett GD**, Albert TJ, Sides BA, Metz LN, Cunningham ME, Kim HJ. Variations in Sagittal Alignment Parameters based on Age: A Prospective Study of Normal Patients using EOS Imaging. Podium Presentation: 2015 Annual CSRS Meeting, San Diego, CA, December 3 – 5, 2015.

Bjerke-Kroll B, Saiyed R, Cheung Z, **Shifflett, GD**, Sheha E, Cunningham M. Post-surgical Predictors of Proximal Junctional Kyphosis in Adolescent Idiopathic Scoliosis. Podium Presentation: 2015 Annual NASS Meeting, Chicago, IL, October 14 – 18, 2015.

Bjerke-Kroll B, Saiyed, R, Cheung Z, **Shifflett, GD**, Sheha D, Cunningham M. Post-surgical Predictors of Proximal Junctional Kyphosis in Adolescent Idiopathic Scoliosis. Podium Presentation: 2015 Annual SRS Meeting, Minneapolis, MN, September 30 – October 3, 2015.

**Shifflett GD**, Urban MK, Garvin S, Ho MC, Iyer C, Dehipawala S, Buschiazzo V, Nguyen JT, Fields K, Hughes AP, Sama AA, Huang RC. Does Chewing Gum Hasten the Return of Bowel Function Post-operatively In Patients Undergoing Spinal Surgery? Podium Presentation: 2015 Hospital for Special Surgery Chief Residents Research Symposium, New York, NY, March 5, 2015.

Bjerke B, Saiyed R, Cheung Z, **Shifflett GD**, Sheha E, Cunningham M. Post-surgical Predictors of Proximal Junctional Kyphosis in Adolescent Idiopathic Scoliosis. Presented at the 2015 International Spine Congress, Izmir, Turkey, April 29 – May 3, 2015.

Bjerke-Kroll BT, Cheung Z, **Shifflett GD**, Iyer S, Derman P, Liu, J, Cunningham ME. Do Upper Instrumented Vertebra Selection Recommendations Predict Shoulder Imbalance? Presented at the 2015 Annual Meeting of the Orthopaedic Research Society. Las Vegas, Nevada, March 28-31, 2015.

**Shifflett GD**, Bjerke-Kroll BT, Nwachukwu BU, Kueper, J, Koltsov, JB, Girardi FP, Sama AA, Cammisa FP, Hughes AP. Microbiologic profile of infections in presumed aseptic revision spine surgery. Presented at the 2015 Annual Meeting of the American Academy of Orthopaedic Surgeons. Las Vegas, Nevada, March 24-28, 2015.

**Shifflett GD**, Bjerke-Kroll BT, Nwachukwu BU, Kueper, J, Koltsov, JB, Girardi FP, Sama AA, Cammisa FP, Hughes AP. The Value of Intra-operative Gram Stain In Revision Spine Surgery. Presented at the 2015 Annual Meeting of the American Academy of Orthopaedic Surgeons. Las Vegas, Nevada, March 24-28, 2015.

**Shifflett GD**, Urban M, Nguyen J, O’Leary PF, Huang RC. Does chewing gum hasten the return of bowel function post-operatively in patients undergoing spinal surgery? Preliminary results of a randomized controlled trial. Chief resident research project presentations. Hospital for Special Surgery, New York, NY. March 5, 2015.

Bjerke-Kroll BT, Iyer S, **Shifflett GD**, Kim HJ. A Novel Measurement of Post-operative Axial Plane Rotation in Adolescent Idiopathic Scoliosis Using Plain Radiographs. Presented at the 2014 International Meeting on Advanced Spine Techniques. Valencia, Spain, July 16-19, 2014.

**Shifflett, GD**. “Back Pain.” Keynote speaker, Greenberg Academy for Successful Aging Lecture. Hospital for Special Surgery. New York, NY. Fall 2012.

**Shifflett, GD**, Gruen, JP. “Mortality in the Usage of Decompressive Craniectomy for the Treatment of Malignant Brain Swelling.” USC Keck School of Medicine Medical Student Research Forum – Poster Presentation. Los Angeles, CA. May 2008.

**Shifflett, GD**, Lee KS. “Epileptogenesis in a Genetic Rat Model of Cortical Malformation: an Analysis of GABA-A Receptor Subunit Associated Anomalies and the Related Contribution to Spontaneous, Recurrent Epilepsy.” The University of Virginia Distinguished Major Thesis. Charlottesville, VA. May 2006.

## ABSTRACTS

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Basques BA, Espinoza-Orias A, **Shifflett GD**, Fice MP, An H, Inoue N. Lumbar Spine Kinematics and Spondylosis Vary By Motion Segment Level In Individuals with Low Back Pain. Poster Presentation: 2017 Annual Meeting of the American Academy of Orthopaedic Surgeons, San Diego, CA, March 14-18, 2017.

Basques, BA, **Shifflett, GD**, Fice, MP, Espinoza-Orias, AA, Inoue, N, An, HS. The kinematics and spondylosis of the lumbar spine vary depending on the levels of motion segments in individuals with low back pain. Poster Presentation: 2016 Annual Meeting of the American Academy of Orthopaedic Surgeons, Orlando, FL, March 1 – 5, 2016.

Bjerke-Kroll B, Saiyed, R, Cheung Z, **Shifflett, GD**, Cunningham M. Does Adolescent Obesity Affect Surgical Presentation and Radiographic Outcome for Patients with AIS? Poster Presentation: 2015 Annual NASS Meeting, Chicago, IL, October 14 – 18, 2015.

**Shifflett GD**, Nwachukwu BU, Bjerke-Kroll BT, Kueper, J, Koltsov, JB, Girardi FP, Sama AA, Cammisa FP, Hughes AP. Who is being cultured in presumed aseptic revision spinal surgery? Poster Presentation: 2015 International Spine Congress, Izmir, Turkey, April 29 – May 3, 2015.

Bjerke B, Saiyed R, Cheung Z, **Shifflett GD**, Cunningham M. Does Adolescent Obesity Affect Surgical Presentation and Radiographic Outcome for Patients with AIS? Poster Presentation: 2015 International Spine Congress, Izmir, Turkey, April 29 – May 3, 2015.

Bjerke B, Saiyed R, Cheung Z, **Shifflett GD**, Cunningham M. Increased lumbar lordosis is associated with less spontaneous lumbar correction after selective thoracic fusion of Lenke 1C and 2C curves. Poster Presentation: 2015 International Spine Congress, Izmir, Turkey, April 29 – May 3, 2015.

Bjerke B, Saiyed R, Cheung Z, **Shifflett GD**, Cunningham M. Post-surgical predictors of PJK following arthrodesis for AIS. Poster Presentation: 2015 International Spine Congress, Izmir, Turkey, April 29 – May 3, 2015.

Bjerke-Kroll BT, Cheung Z, **Shifflett GD**, Iyer S, Derman P, Liu, J, Cunningham ME. Do Upper Instrumented Vertebra Selection Recommendations Predict Shoulder Imbalance? Poster presentation: 2015 Annual Orthopaedic Research Society Meeting. Las Vegas, Nevada, March 30-April 2, 2015.

Bjerke-Kroll BT, Cheung Z, **Shifflett GD**, Iyer S, Derman P, Liu, J, Cunningham ME. Do Upper Instrumented Vertebra Selection Recommendations Predict Shoulder Imbalance? Poster presentation: 2015 Annual Meeting of the American Academy of Orthopaedic Surgeons. Las Vegas, Nevada, March 24-28, 2015.

**Shifflett GD**, Bjerke-Kroll BT, Nemani VM, Nguyen JT, Huang RC. Postoperative pain following posterior iliac crest bone graft harvesting in spine surgery: a randomized trial. North American Spine Society's 11<sup>th</sup> Annual Evidence and Technology Spine Summit. Snowbird, Utah, February 26-28, 2015.

Bjerke-Kroll B, Cheung Z, **Shifflett G**, Iyer S, Derman P, Kim H. A Novel Measurement of Postoperative Rotation in AIS: Technique Description and Series of 178 patients at Minimum One-Year Followup. North American Spine Society's 11<sup>th</sup> Annual Evidence and Technology Spine Summit. Snowbird, Utah, February 26-28, 2015.

Bjerke-Kroll B, Gladnick B, **Shifflett G**, Iyer S, Gausden E, Cunningham M. Manual Vertebral Curve Assessment Using a Novel Post-It® Technique. North American Spine Society's 11<sup>th</sup> Annual Evidence and Technology Spine Summit. Snowbird, Utah, February 26-28, 2015.

Trehan, S, **Shifflett GD**, Johnsen P, Lee SK, Wolfe SW. Photography-based goniometry method for measuring wrist range of motion. Presented at the 2015 Annual Meeting of the American Association for Hand Surgery. Paradise Island, Bahamas, January 2015.

Bjerke-Kroll BT, Cheung Z, **Shifflett GD**, Iyer S, Derman P, Cunningham ME. Shoulder Imbalance at Minimum One-Year Follow-Up In 172 Patients With Adolescent Idiopathic Scoliosis: Attempted Validation of Prior Recommendations for Upper Instrumented Vertebra Selection. Presented at the 2014 International Meeting on Advanced Spine Techniques. Valencia, Spain, July 16-19, 2014.

Bjerke-Kroll BT, Iyer S, **Shifflett GD**, Kim HJ. A Novel Measurement of Post-operative Axial Plane Rotation in Adolescent Idiopathic Scoliosis Using Plain Radiographs. Presented at the 2014 North American Spine Society summer meeting, Amelia Island, FL, July 2014.

Bjerke-Kroll BT, Gladnick BP, Schreiber JJ, **Shifflett GD**, Cunningham ME. Assessment of vertebral curves using the manual Post-It® Technique. Presented at the 2014 North American Spine Society summer meeting, Amelia Island, FL, July 2014.

**Shifflett GD**, Green DW, Berner N, Widmann R, Marx RG. Growth arrest following ACL reconstruction with hamstring autograft in skeletally immature patients: a review of four cases. Presented at the 2014 annual European Pediatric Orthopedics Society, Bruges, Belgium, April 2014.

**Shifflett GD**, Green DW, Berner N, Widmann R, Marx RG. Growth arrest following ACL reconstruction with hamstring autograft in skeletally immature patients: a review of four cases. Presented at the 2014 annual European Society of Sports Traumatology, Knee Surgery, and Arthroscopy. Amsterdam, Netherlands, May 2014.

**Shifflett GD**, Athanasian EA, Lee SK, Weiland AJ, Wolfe SW. Hardware failure in four-corner fusion: a case series of headless screw protrusion. Presented at the 2013 annual New York Society for Surgery of the Hand. May 14, 2013.

Lisle TC, Fernandez LG, Sharma AK, Bellizzi AM, Gazoni LM, **Shifflett GD**, Kazemi A, Linden JM, Laubach VE, Kron IL. Lung injury after cardiopulmonary bypass is attenuated by adenosine A<sub>2A</sub> receptor activation. Presented at the 2008 American Academy of Thoracic Surgeons meeting, San Diego, CA, May 2008.

## CURRENT RESEARCH

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**Shifflett GD**, Yacob A, Khan S, An HS. Upper cervical radiculopathy. In progress

**Shifflett GD**, Johnson HE, Emerson JT, Chou OB, Basques BA, Birlingmair JA, McKinney DP, Louie PK, An HS. Radiographic differences between symptomatic and asymptomatic patients with DCS. In progress.

**Shifflett GD**, Johnson HE, Emerson JT, Chou OB, Basques BA, Birlingmair JA, McKinney DP, Louie PK, An HS. Radiographic differences between symptomatic and asymptomatic patients with DCS. Involvement of C3-4 motion segment in multi-level myelopathy patients. In progress.

**Shifflett GD**, Johnson HE, Emerson JT, Chou OB, Basques BA, Birlingmair JA, McKinney DP, Louie PK, An HS. Radiographic differences between symptomatic and asymptomatic patients with DCS. Incidence of symptomatic degenerative cervical spondylolisthesis in patients with cervical spondylotic myelopathy. In progress.

**Shifflett GD**, Johnson HE, Emerson JT, Chou OB, Basques BA, Birlingmair JA, McKinney DP, Louie PK, An HS. Radiographic differences between symptomatic and asymptomatic patients with DCS. Clinical incidence and radiographic characteristics of upper cervical radiculopathy in patients with multi-level cervical spondylotic myelopathy. In progress.

**Shifflett GD**, Johnson HE, Emerson JT, Chou OB, Basques BA, Birlingmair JA, McKinney DP, Louie PK, An HS. Radiographic differences between symptomatic and asymptomatic patients with DCS cervical spondylolisthesis adjacent to a fusion construct: what is the fate of this unfused segment? In progress.

Basques, BA, **Shifflett, GD**, Quirno, M, Saltzman, BM, Phillips, FM, Espinoza-Orias, AA, An, HS. Radiographic Comparison after Anterior Cervical Decompression and Fusion with Stand-Alone Polyetheretherketone (PEEK) Cage versus Allograft and Plate Construct. In progress.

Louie PK, Presciutti SM, Iantorno SE, Bohl DD, **Shifflett GD**, An HS. There is No Increased Risk of Adjacent Segment Disease at the Cervico-Thoracic Junction Following an Anterior Cervical Discectomy and Fusion to C7

Mayo B, Louie P, **Shifflett GD**, Singh K. Intraoperative intravenous steroids and the effect on post-operative dysphagia. In progress.

**Shifflett GD**, Kaikous J, Goczalk MG, Basques BA, Louie PK, Phillips FM. Radiographic outcomes and reoperation rates in patients undergoing anterior cervical discectomy and fusion with stand-alone interbody devices. In progress.

**Shifflett GD**, Kaikous J, Goczalk MG, Basques BA, Louie PK, Phillips FM. Reoperation rates in patients undergoing minimally invasive lumbar decompression for spinal stenosis. In progress.

**Shifflett, GD**, Iyer, C, Horne, P, Kim, HJ, Sama, AA, Girardi, FP, Cammisa, FP, Albert, TW. Do topical steroids aid in the prevention of post-operative dysphagia in patients undergoing elective anterior cervical discectomy and fusion? Funded by Spine Service Research Grant. In progress.

**Shifflett GD**, Urban M, Iyer C, Nguyen J, Huang RC. Randomized controlled trial evaluating effect of chewing gum on return of bowel function following spinal surgery. Funded by Thomas Wickiewicz, MD Resident Research Grant. In progress.

**Shifflett GD**, Nwachukwu BU, Bjerke-Kroll BT, Kueper, J, Koltsov, JB, Girardi FP, Sama AA, Cammisa FP, Hughes AP. Who is being cultured in presumed aseptic revision spinal surgery? In progress.

**Shifflett, GD**, Taylor SA, Cammisa FP, Warren RF. Management of transient quadriparesis in the National Football League. In progress.

**Shifflett GD**, O'Leary PF, Huang RC. Retrograde Ejaculation Following Anterior Lumbar Interbody Fusion. In progress.

Bjerke BT, Saiyed R, Cheung Z, **Shifflett GD**, Sheha E, Cunningham M. The Incidence of Hardware Removal for Modern AIS Arthrodesis is Much Lower than Previously Reported. In progress.

Bjerke-Kroll BT, Cheung Z, **Shifflett GD**, Iyer S, Derman P, Cunningham ME. Shoulder Imbalance at Minimum One-Year Follow-Up In 172 Patients With Adolescent Idiopathic Scoliosis: Attempted Validation of Prior Recommendations for Upper Instrumented Vertebra Selection. In progress.

## **RESEARCH EXPERIENCE**

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### **Rush University Medical Center, Midwest Orthopedics, Department of Orthopedic Surgery, Spine service, Howard S. An, MD, Kern Singh, MD, Frank Phillips, MD. (2015-present)**

The clinical manifestations and management of upper cervical radiculopathy, upper cervical radiculopathy in the setting of cervical spondylotic myelopathy, evaluation of the effect of intraoperative intravenous steroids on post-operative dysphagia, treatment of high grade spondylolisthesis with minimally invasive TLIF, biomechanical analysis of lumbar kinematics and the differences between patients with and without low back pain, return to golf following lumbar fusion, clinical outcomes following minimally invasive lumbar decompressions, outcomes and reoperation rates of stand-alone cages for anterior cervical discectomy and fusion.

### **Hospital for Special Surgery, Department of Orthopaedic Surgery, Spine Service, Todd J. Albert, MD, Russel C. Huang, MD, Alexander P. Hughes, MD, and Han Jo Kim, MD (2011-Present)**

Prospective randomized clinical trial evaluating intra-operative topical steroids in the reduction of post-operative dysphagia in patients undergoing cervical spine surgery, prospective randomized clinical trial investigating effect of chewing gum to reduce post-operative ileus, prospective randomized clinical trial investigating donor site pain following iliac crest bone grafting, development of new radiographic techniques for measuring axial plane deformity in scoliosis, validating methods of fusion level selection, identifying risk factors for decompensation following scoliosis surgery, identifying indicators of spontaneous lumbar curve correction in selective thoracic fusions, evaluation of retrograde ejaculation following anterior lumbar surgery, utility and cost-effectiveness of obtaining intra-operative cultures following revision lumbar surgery.

**Hospital for Special Surgery, Department of Orthopaedic Surgery, Sports Medicine / Shoulder Service, Russel F. Warren, MD (2013-Present)**

Management of transient quadriparesis in the national football league.

**Hospital for Special Surgery, Department of Orthopaedic Surgery, Sports Medicine / Shoulder Service, Robert G. Marx, MD (2012-2015)**

Post-operative growth arrest following ACL reconstruction in skeletally immature patients.

**Hospital for Special Surgery, Department of Orthopaedic Surgery, Hand and Upper Extremity Surgery, Andrew J. Weiland, MD (2011-2015)**

Complications of four-corner fusion treatment, complex upper extremity injury patterns, novel clinical evaluation strategies.

**Hospital for Special Surgery – Weill-Cornell Medical College, Orthopaedic Trauma Service, David L. Helfet, MD (2010-2015)**

Interobserver and intraobserver reliability of imaging modalities in classifying proximal humerus fractures and recommending treatment strategies, application of percutaneous techniques for iliosacral screw placement.

**The University of Southern California – Keck School of Medicine, Department of Orthopaedic Surgery, Division of Hand and Microvascular Surgery, Milan V. Stevanovic, MD, PhD (2009-2010)**

Evaluation of free vascularized fibula grafting for the treatment of osteonecrosis of the femoral head.

**The University of Southern California – Keck School of Medicine, Department of Neurological Surgery, J. Peter Gruen, MD (2007-2009)**

Radiologic evaluation of head trauma, comparison of diagnostic modalities in evaluating intracranial hypertension.

**The University of Virginia School of Medicine, Department of Thoracic and Cardiovascular Surgery, Irving L. Kron, MD (2007)**

Incidence of stroke following cardio-pulmonary bypass surgery, investigating pharmacologic attenuation of cardio-pulmonary bypass related lung injury in a rat model.

**The University of Virginia School of Medicine, Department of Neuroscience, Kevin S. Lee, PhD (2003-2006)**

Basic science research investigating the causal relationship between brain malformations and epilepsy in a rat model with congenital neocortical dysplasia.

**RELEVANT EXPERIENCE**

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2017	Volunteer Physician AVP (Professional Beach Volleyball) So Cal Tour
2014-Present	Reviewer, <i>Hospital for Special Surgery Journal</i> , New York, NY
2012-2015	Team Physician, Tottenville High School, Staten Island, NY
2010-2015	Pediatric Outreach Program, Hospital for Special Surgery, New York, NY
2010-2015	Medical Student Advisory Committee, Hospital for Special Surgery, New York, NY
2010-2015	Psychomotor Skills Education Laboratory, Hospital for Special Surgery, New York, NY
2010	Teaching Assistant, Gross Anatomy, USC School of Medicine, Los Angeles, CA
2008-2010	Medical Scholars Program, Tutor, Pathology/Physiology, USC SOM, Los Angeles, CA
2007	Volunteer, Healing Hearts Across Borders – Medical Mission, Tijuana, Mexico

**PROFESSIONAL SOCIETIES**

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2016-Present	Society for Minimally Invasive Spinal Surgery, Member
2016-Present	Rush University Alumni Association
2015-Present	AO Spine North America
2015-Present	Hospital for Special Surgery Alumni Association
2014-Present	North American Spine Society
2010-Present	American Academy of Orthopaedic Surgeons
2010-Present	Salerni Collegium Medical Alumni Association
2009-Present	Alpha Omega Alpha
2006	American Medical Association
2006	California Medical Association
2006	Los Angeles County Medical Association
2006-Present	University of Virginia Alumni Foundation

**CERTIFICATIONS**

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2016	Physician License, Medical Board of California
2016	Advanced Cardiac Life Support, American Heart Association
2016	Basic Life Support, American Heart Association
2015	American Board of Orthopedic Surgeons, Part I
2015	Physician License, Illinois Department of Financial and Professional Regulation
2013	Physician License, New York State Education Department
2012	USMLE Step 3
2009	USMLE Step 2
2008	USMLE Step 1