Yu-Po Lee

Board Certified Orthopaedic Surgeon Subspecialty in Spine Surgery

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Faculty Positions

2005-present UCSD Department of Orthopaedic Surgery

Associate Clinical Professor

Fellowship

2004-2005 Cleveland Clinic Spine Fellowship

Residency

1998-2004 UCLA Orthopaedic Surgery Residency Program

Education

1993-1998 UCLA School of Medicine

1988-1993 University of California at Los Angeles

B.S., Physiological Science, cum laude

Honors and Awards

2001 Charles H. Herndon Residency Research Award

Society Membership

- 1. Member of the North American Spine Society 2007 Present
- 2. Member of the American Association of Orthopaedic Surgeons 2006 Present
- 3. Member of the Western Orthopaedic Association 2007 Present

- 4. Member of the Society for Minimally Invasive Spine Surgery 2006 Present
- 5. Member of the International Society for the Advancement of Spine Surgery

 Present

 2008 –

Committees and Positions held

- 1. CME director for UCSD Department of Orthopaedic Surgery Residents 2007 Present
- 2. Director of UCSD Spine Surgery Clinical Trials Program 2005 Present
- 3. UCSD Spine Fellowship Director 2008 Present

Publications

- 1. Lieberman JR, Daluiski A, Stevenson S, Wu L., McAllister P, Lee YP, Kabo JM, Finerman GA, Berk AJ, Witte ON. *The effect of regional gene therapy with bone morphogenetic protein-2-producing bone-marrow cells on the repair of segmental femoral defects in rats.* J Bone Joint Surg Am. 1999 Jul;81(7):905-17.
- 2. Abe N, Lee Y, Sato M, Zhang Z, Wu J, Mitani K, Lieberman J. *Enhancement of Bone Repair with a Helper-Dependent Adenoviral Transfer of Bone Morphogenetic Protein-2.* Biochem Biophys Res Commun. 2002 Sep 27;297(3):523-7.
- 3. Berger F, Lee Y, Leoning A, Chatziioannou A, Tso C, Freedland S, Leahy R, Lieberman J, Beldegrun A, Sawyers C, Gambhir S. Whole body skeletal imaging in mice utilizing MicroPET and MicroCAT: new tools for small animal bone imaging. European Journal of Nuclear Medicine & Molecular Imaging. 2002 Sep;29(9):1225-36.
- 4. Lee Y, Wang J, Kanim L, Jo M, Davies M, Lieberman J. *The direct comparison of different commercially available demineralized bone matrix substances in an athymic rat model.* The Spine Journal Volume 2, Issue 2, Supplement 1 4 March 2002 Pages 25-26. (Abstract)
- 5. Lee Y, Kanim L, Wang J. Comparing human 'local' bone versus human

- cancellous bone for spinal fusion in an athymic rat model. The Spine Journal Volume 2, Issue 2, Supplement 1 4 March 2002 Page 25. (Abstract)
- 6. Lee Y, Schwarz E, Davies M, Jo M, Zhang X, Gates J, Wu J, Lieberman J. *The use of zoledronate to treat osteoblastic versus osteolytic lesions associated with prostate tumors in a SCID mouse model.* Cancer Res. 2002 Oct 1;62(19):5564-70.
- 7. Lee Y, Schwarz E, Davies M, Jo M, Gates J, Wu J, Zhang X, Lieberman J. *The cytokine profile associated with osteolytic versus osteoblastic prostate cancer metastases to bone.* Journal of Orthopaedic Research, 2003 Jan 8; 21: 62-72.
- 8. Davies MR, Lee YP, Lee C, Zhang X, Afar DE, Lieberman JR. Use of a SCID mouse model to select for a more aggressive strain of prostate cancer. Anticancer Res. 2003 May-Jun;23(3B):2245-52.
- 9. Severns AE, Lee YP, Nelson SD, Johnson EE, Kabo JM. *Metabolic measurement techniques to assess bone fracture healing: a preliminary study*. Clin Orthop. 2004 Jul;(424):231-8.
- 10. Dragoo JL, Lieberman JR, Lee RS, Deugarte DA, Lee Y, Zuk PA, Hedrick MH, Benhaim P. *Tissue-engineered bone from BMP-2-transduced stem cells derived from human fat.* Plast Reconstr Surg. 2005 May;115(6):1665-73.
- 11. Lee Y, Jo M, Luna M., Chien B., Lieberman J., Wang J. *The efficacy of different commercially available demineralized bone matrix substances in forming a spinal fusion in an athymic rat model.* J Spinal Disord Tech. 2005 Oct;18(5):439-44.
- 12. Gamradt SC, Abe N, Bahamonde ME, Lee YP, Nelson SD, Lyons KM, Lieberman JR *Tracking Expression of Virally Mediated BMP-2 in Gene Therapy for Bone Repair.* Clin Orthop Relat Res. 2006 May 11
- 13. Wang ML, Massie J, Allen RT, Lee YP, Kim CW. Altered bioreactivity and limited osteoconductivity of calcium sulfate-based bone cements in the osteoporotic rat spine. Spine J. 2008 Mar-Apr;8(2):340-50.
- 14. Allen RT, Lee YP, Stimson E, Garfin SR. *Bone morphogenetic protein-2 (BMP-2) in the treatment of pyogenic vertebral osteomyelitis*. Spine. 2007 Dec 15;32(26):2996-3006.

- 15. Kim CW, Lee YP, Taylor W, Oygar A, Kim WK. *Use of navigation-assisted fluoroscopy to decrease radiation exposure during minimally invasive spine surgery.* Spine J. 2008 Jul-Aug;8(4):584-90.
- 16. Ghofrani H, Lee YP. *Bone Graft Substitutes and Extenders*. Contemporary Spine Surgery. April 2008.
- 17. Regev GJ, Chen L, Dhawan M, Lee YP, Garfin SR, Kim CW. *Morphometric* analysis of the ventral nerve roots and retroperitoneal vessels with respect to the minimally invasive lateral approach in normal and deformed spines. Spine (Phila Pa 1976). 2009 May 20;34(12):1330-5.
- 18. Regev GJ, Lee YP, Taylor WR, Garfin SR, Kim CW. Nerve injury to the posterior rami medial branch during the insertion of pedicle screws: comparison of mini-open versus percutaneous pedicle screw insertion techniques. Spine (Phila Pa 1976). 2009 May 15;34(11):1239-42.
- 19. **Lee YP**, Ghofrani H. *Degenerative Scoliosis*. Contemporary Spine Surgery May 2010.
- 20. Regev GJ, Haloman S, Chen L, Dhawan M, Lee YP, Garfin SR, Kim CW. *Incidence and prevention of intervertebral cage overhang with minimally invasive lateral approach fusions*. Spine (Phila Pa 1976). 2010 Jun 15;35(14):1406-11.
- 21. Lee YP, Robertson C, Mahar A, Kuper M, Lee D, Regev G, Garfin S. *Biomechanical evaluation of transfacet screw fixation for stabilization of multi-level cervical corpectomies.* Journal of Spinal Disorders and Techniques. Accepted for publication.
- 22. Regev GJ, Kim CW, Tomiya A, Lee YP, Ghofrani H, Garfin SR, Lieber RL, Ward SR. *Psoas Muscle Architectural Design, In Vivo Sarcomere Length Range, and Passive Tensile Properties Support its Role as a Lumbar Spine Stabilizer*. Spine (Phila Pa 1976). 2011 Mar 14.
- 23. Lee YP, Ghofrani H, Regev GJ, Garfin SR. A retrospective review of long anterior fusions to the sacrum. Spine J. 2011 Apr;11(4):290-4.
- 24. Vinko Zlomislic, **Y Lee**, Alexandra Schwartz, Steven Garfin. *Management of sacroiliac joint dysfunction*. Contemporary Spine Surgery April 2011.
- 25. Lee YP, Ellingson C, Garfin SR. *Thoracolumbar fractures*. European Musculoskeletal Review vol 6 issue 2.
- 26. Lee YP, Regev G, Chan J. *Evaluation of hip flexion strength following lateral lumbar interbody fusion.* Spine J. 2013 Oct;13(10):1259-62.

- 27. Anubhav Jagadish, Douglas Chang, Yu-Po Lee. *Use of Bisphosphonates in Spine Surgery* Contemporary Spine Surgery. Publication pending.
- 28. AnubhavJagadish, Sreeharsha V. Nandyala, AlejandroMarquez-Lara, Kern Singh, and **Yu-Po Lee.** *Spinal Interventions-The Role in the Athlete.* Operative Techniques in Sports Medicine
- 29. **Yu-Po Lee**, Joseph Sclafani. *Lumbar iatrogenic spinal instability*. Seminars in Spine Surgery. Volume 25, Issue 2, June 2013, Pages 131–137.
- 30. Chen F, **Lee YP**. *Vertebral Augmentation*. Contemporary Spine Surgery. 14(8):1-7, August 2013.
- 31. Nandyala, Sreeharsha V.; Marquez-Lara, Alejandro; **Lee, Yu-Po.** *Strategies to Prevent Infection after Spine Surgery.* Contemporary Spine Surgery. 15(6):1-5, June 2014.
- 32. **Yu-Po Lee**, R. Todd Allen. Proximal Junctional Kyphosis. **Contemporary Spine Surgery**.
- 33. Tatsumi R., **Lee Y**, Khajavi K, Taylor W, Chen F, Bae H. In Vitro Comparison of Endplate Preparation between Four Mini-Open Interbody Fusion Approaches. **European Spine Journal.**

Presentations

- 1. Sinel M, Goldstein T, Deutsch A, Mink J, **Lee Y**, Jackson K. Conservative management of large lumbar disc extrusions: an MRI study. American Academy of Orthopaedic Surgeons. 66th, Annual Meeting, Anaheim, 1999.
- 2. **Lee Y**, Kanim L, Jo M, Luna M, Wang J. The efficacy of local bone versus iliac crest bone in forming a spinal fusion in an athymic rat model. Poster presentation. Orthopaedic Research Society. 43rd Annual Meeting, San Francisco, 2001.
- 3. **Lee Y**, Schwarz E, Davies M, Jo M, Zhang X, Gates J, Wu J, Lieberman J. The use of zoledronate to treat osteoblastic versus osteolytic lesions associated with prostate tumors in a SCID mouse model. Poster presentation. American Society of Bone and Mineral Research. 23rd Annual Meeting, Phoenix, 2001.

- 4. **Lee Y**, Schwarz E, Davies M, Jo M, Zhang X, Gates J, Wu J, Lieberman J. The use of zoledronate to treat osteoblastic versus osteolytic lesions associated with prostate tumors in a SCID mouse model. Poster presentation. Orthopaedic Research Society. 44th Annual Meeting, Dallas, 2002.
- 5. **Lee Y**, Schwarz E, Davies M, Jo M, Zhang X, Lieberman J. The cytokine profile associated with osteolytic versus osteoblastic prostate cancer metastases to bone. Poster presentation. Orthopaedic Research Society. 44th Annual Meeting, Dallas, 2002.
- 6. Severns AE, **Lee Y**, Martin DE, Botzler TM, Nelson SD, Johnson EE, Kabo JM. Healing of bone fractures assessed using metabolic measurement techniques. Poster presentation. Orthopedic Research Society. 45th Annual Meeting, New Orleans, 2003.
- 7. **Lee Y**, Kanim L, Jo M, Luna M, Wang J. The efficacy of local bone versus iliac crest bone in forming a spinal fusion in an athymic rat model. Podium presentation. North American Spine Society. 16th Annual Meeting, Seattle, 2001.
- 8. **Lee Y**, Kanim L, Jo M, Wang J. The efficacy of different commercially available demineralized bone matrix substances in forming a spinal fusion in an athymic rat model. Podium presentation. North American Spine Society. 16th Annual Meeting, Seattle, 2001.
- 9. **Lee, Y**, Ward, W, Kelly, C, Kabo, JM, Dorey, F, Eckardt, J. Rotating hinge knee mechanisms and tumor endoprostheses. Poster presentation. Musculoskeletal Tumor Society. 2003 Annual Meeting, Chicago.
- 10. **Lee, Y**, Ward, W, Kelly, C, Kabo, JM, Dorey, F, Eckardt, J. Rotating hinge knee mechanisms and tumor endoprostheses. Poster presentation. American Academy of Orthopaedic Surgery. 2004 Annual Meeting, San Francisco.
- 11. Lee, Y. Lieberman, I. The use of pull-out resistant nuts in spine surgery. Poster presentation. International Meeting for Advanced Spinal Techniques. 2005 Annual Meeting, Banff, Canada.
- 12. Massie J., **Lee Y**., Kim C., Acheson W., Garfin S. The effect of glucosamine and betamethasone on disc degeneration. Poster Presentation. North American Spine Society. 22nd Annual Meeting, Austin, 2007.
- 13. **Lee Y**, Robertson C, Mahar A, Kuper M, Lee D, Regev G, Garfin S. Biomechanical evaluation of transfacet screw fixation for stabilization of multi-level cervical

- corpectomies. Poster presentation. Orthopaedic Research Society. Annual Meeting, San Francisco, 2008.
- 14. **Lee Y**, Robertson C, Mahar A, Kuper M, Lee D, Regev G, Garfin S. Biomechanical evaluation of transfacet screw fixation for stabilization of multi-level cervical corpectomies. Poster presentation. North American Spine Society. 24th Annual Meeting, San Francisco, 2009
- 15. Gilad J. Regev, Lina Chen, Mallika Dhawan, **Yu-Po Lee**, Steven R. Garfin, Choll W. Kim. Morphometric Analysis of the Ventral Nerve Roots and Retroperitoneal Vessels With Respect to the Minimally Invasive Lateral Approach in Normal and Deformed Spines. Podium Presentation. Lumbar Spine Research Society. 1st Annual Meeting, Chicago, IL, 2009.
- 16. **Yu-Po Lee**, Cary Templin, Tudor Hughes, Choll Kim, Michael Gulian, Michael Chang, Robert Eastlack, Steven Garfin. The Accuracy of the Pedicle Probe. Podium Presentation. Lumbar Spine Research Society. 1st Annual Meeting, Chicago, IL, 2009.
- 17. Gilad J. Regev, Lina Chen, Mallika Dhawan, **Yu-Po Lee**, Steven R. Garfin, Choll W. Kim. Morphometric Analysis of the Ventral Nerve Roots and Retroperitoneal Vessels With Respect to the Minimally Invasive Lateral Approach in Normal and Deformed Spines. Oral Poster Presentation. Spine Arthoplasty Society. 9th Annual Meeting, London, 2009.
- 18. Gilad J. Regev, William R. Taylor, **Yu Po Lee**, Steven R. Garfin, Choll W. Kim. Nerve Injury to the Posterior Rami Medial Branch During the Insertion of Pedicle Screws: Comparison of Mini-Open vs. Percutaneous Pedicle Screw Insertion Techniques. Oral Poster Presentation. Spine Arthoplasty Society. 9th Annual Meeting, London, 2009.
- 19. **Lee Y.**, Schwartz A., Girard P., O'Brien J., Ghofrani H., Garfin S. Analysis of orthopaedic residents' in-training scores and complications before and after the 80 hour work rule. Podium Presentation. American Academy of Orthopaedic Surgeons. 2009 Annual Meeting. New Orleans.
- 20. **Lee Y.**, Ghofrani H., Regev G., Gulian M., Kim C., Garfin S. Evaluation of Hip Flexion Strength Following Extreme Lateral Lumbar Interbody Fusion: Is the Psoas Muscle Seriously Injured? Oral Poster. Spine Arthoplasty Society. 10th Annual Meeting, New Orleans, 2010.
- 21. **Lee Y.**, Schwartz A., Girard P., O'Brien J., Ghofrani H., Garfin S. Analysis of orthopaedic residents' in-training scores and complications before and after the 80 hour work rule. Poster Presentation. American Orthopaedic Association. 123rd Annual Meeting, San Diego, 2010.
- 22. **Lee Y**., Ghofrani H., Regev G., Gulian M., Kim C., Garfin S. Evaluation of Hip Flexion Strength Following Extreme Lateral Lumbar Interbody Fusion: Is the Psoas

Muscle Seriously Injured? Podium Presentation. North American Spine Society. 25th Annual Meeting, Orlando, 2010

- 23. **Lee Y**., Ghofrani H., Garfin S. Evaluation of the Functional Anesthetic Discogram as a Screening Tool for Lumbar Fusion to Treat Degenerative Disc Disease. Poster Presentation. North American Spine Society. 25th Annual Meeting, Orlando, 2010
- 24. The Use of Motor Evoked Potentials to Detect Neurologic Injury during Lateral Interbody Fusion. International Society for the Advancement of Spine Surgery. San Diego, 2015

Book Chapters

- 1. Cervical Lateral Mass Screws in Tricks of the Trade, Ed. Alex Vaccaro, 2009
- 2. Arthritides of the Spine in AAOS Board Review. Ed. Jeffrey Wang, 2009
- 5. Novel Intraoperative Imaging Modalities in Spine Surgery in *Seminars in Spine Surgery*. Ed. Alex Vaccaro.
- 6. Deformity in *Curbside Consults*. Ed. Bernie Bach.
- 7. Thoracolumbar Fractures in *Skeletal Trauma*, 4th edition. Ed. Browner, Jupiter, Levine, Trafton
- 8. Templin, C.R, Lee, Y.L, Garfin, S.R. Pathophysiology and Etiology of Lumbar Disc Herniation. *The Lumbar Intervertebral Disc*. Phillips, F., Lauryssen, C., ed. Thieme Publications.
- 9. Vertebral Augmentation in *Spine Trauma Surgical Techniques*. Ed. Vikas Patel. Springer publications.
- 10. Percutaneous Pedicle Screws in *Advanced Reconstruction: Spine (AAOS)*. Ed. Jeffrey Wang.
- 11. Cervical Epidural Abscess in *Prove It*. Ed. Christopher Bono. 2010.
- 12. Cervical Spondylosis–Spinal Stenosis: Laminoplasty Versus Laminectomy and Fusion. BEST EVIDENCE FOR SPINE SURGERY: 20 Cardinal Cases. Ed. Rahul Jandial. 2010.
- 13. Yu-Po Lee, Joseph Sclafani, Steven Garfin. Pseudoarthrosis in *Seminars in Spine Surgery*. Volume 23, Issue 4, December 2011, Pages 275–281

- 14. Costotransversectomy in *Operative Techniques in Spine Surgery*. Ed. John Rhee. 2012
- 15. Yu-Po Lee, Tanaya Pattnaik, Steven R. Garfin. Biologic Considerations. *extreme Lateral Interbody Fusion* 2nd Edition.
- 16. Lateral Interbody Fusion in Rothman and Simeone. 2011
- 17. Lateral Interbody fusion in *Minimally Invasive Spine Surgery an Algorithmic Approach*. Ed. Kern Singh. July 2013.
- 18. Inflammatory Diseases in *Spine Surgery Current Concepts and Evidence*. Publication pending.
- 19. Cervical Lateral Mass Screws in *Tricks of the Trade*, Ed. Alex Vaccaro, 3rd edition. Publication pending.
- 20. Arthritides of the Spine in AAOS Board Review. 2nd edition. Publication pending.
- 21. Unilteral facet disclocation in Board Review Series, Ed. Chris Bono. Publication pending.
- 22. Lateral Surgery. Case Based Minimally Invasive Surgery, Ed. Sheeraz Qureshi

Courses Taught

- 1. AONA ORP Training course. Columbus, OH 2004.
- 2. San Diego Citywide Spine Conference. San Diego, CA April 29, 2006.
- 3. Spine Study Group. West Palm Beach, Fl. May 17-21, 2006.
- 4. Cleveland Clinic Spine Review Course. Cleveland OH. July 17-25, 2006.
- 5. Spine Study Group. West Palm Beach, Fl. May 2-6, 2007.
- 6. Critical Care. San Diego, CA July 24-26, 2008.
- 7. Cervical Spine Stabilization Technique Workshop at NASS Annual Meeting 2008.
- 8. American Academy of Orthopaedic Surgeons Techniques Workshop. St. Louis, MO. 2009.
- 9. California Orthopaedic Association. Santa Barbara, CA. May 2009.

- 10. Spine Study Group. West Palm Beach, Fl. May, 2009
- 11. Cervical Spine Stabilization Technique Workshop at NASS Annual Meeting, 2009
- 12. Spine Study Group. West Palm Beach, Fl. May, 2010
- 13. Cervical Spine Stabilization Technique Workshop at NASS Annual Meeting, 2010