

# David P. Zamorano, M.D.

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## Current Position:

Director, Orthopaedic Trauma Service  
Dept. of Orthopaedic Surgery  
University of California, Irvine

Health Sciences Assistant Clinical Professor  
Dept. of Orthopaedic Surgery  
University of California, Irvine

Assistant Residency Program Director  
Dept. of Orthopaedic Surgery  
University of California, Irvine

AO North America  
Musculoskeletal Trauma Faculty

Journal of Orthopaedic Trauma  
Reviewer

Medical Director, Clinica Bethesda Medical Outreach Clinic  
Puerta Trampa, Mexico

## Education:

University of California, Los Angeles  
Bachelor of Science, 1995  
Microbiology and Molecular Genetics  
University of Southern California, School of Medicine  
Doctor of Medicine, 1999

Harbor/University of California, Los Angeles  
Orthopaedic Surgery Internship, 1999-2000  
Orthopaedic Surgery Residency, 2000-2004

University of Texas, Houston

Hermann Memorial Hospital  
Orthopaedic Trauma Fellowship  
August 2004 – March 2005

**Prior Academic Appointments:**

Health Sciences Assistant Clinical Professor  
Dept. of Orthopaedic Surgery  
University of California, Los Angeles  
2005-2007

Health Sciences Assistant Clinical Professor  
Dept. of Orthopaedic Surgery  
Harbor/UCLA Medical Center  
2005-2007

Assistant Chief, Orthopaedic Trauma Service  
Dept. of Orthopaedic Surgery  
Harbor/UCLA Medical Center  
2005-2007

**Awards and Honors:**

University of California, Irvine  
Kevin L. Armstrong Clinical Faculty Teaching Award, June 2008

**Research Grants and Awards:**

Harbor/UCLA Dana Street Alumni Day Outstanding Research Presentation, 2006  
*Prospective, Randomized Trial Comparing Plate Osteosynthesis versus Hybrid Nail-Plate Fixation in Both Bone Forearm Fractures*

Harbor/UCLA Dana Street Alumni Day Outstanding Research Presentation, 2007  
*Biomechanical Comparison of Trans-sacral Fixation versus Triangular Osteosynthesis in an Unstable Pelvic Fracture Model*

Synthes U.S.A., Trauma Division Pelvic Fracture Research Grant, 2008  
*Biomechanical Comparison of Trans-sacral Screw Fixation versus Triangular Osteosynthesis in an Unstable Pelvic Fracture Model*

- Smith and Nephew Tibial Plateau Research Grant, 2008  
*Biomechanical Comparison of Locked versus Non-locked Plating for Split-Depressed Tibial Plateau Fractures*
- Smith and Nephew Proximal Femoral Locking Plate Research Grant, 2008  
*Biomechanical Comparison of Two Proximal Femoral Locking Plates in an Unstable Hip Fracture Model*
- Smith and Nephew Intuit Hip Fracture Research Grant, 2008  
*Intramedullary Nailing for Treatment of Unstable Intertrochs (INTUIT) Outcome Study -*
- Wyeth Pharmaceuticals Bone Morphogenic Protein Research Grant, 2008  
*A Phase 2, Multicenter, Double-Blind, Randomized, Stratified, Controlled, Efficacy, Safety and Feasibility Study of rhBMP-2/CPM as an Adjuvant Therapy in Closed Fractures of the Humerus*
- Wyeth Pharmaceuticals Bone Morphogenic Protein Research Grant, 2008  
*A Phase 2/3, Multicenter, Double-Blind, Randomized, Controlled Study of Recombinant Human Bone Morphogenetic Protein-2 (Rhbmp-2)/Calcium Phosphate Matrix (CPM) in Closed Diaphyseal Tibial Fractures*
- Amgen, Inc. Tibia fracture healing grant, 2009. *A Multi-center, Randomized, Double-blind, Placebo-controlled Study of AMG 785 in Skeletally Mature Adults with a Fresh Unilateral Tibial Diaphyseal Fracture Status Post Definitive Fracture Fixation with an Intramedullary Nail*
- Twin Star Medical, Inc. Compartment pressure measurement grant, 2009.  
*Randomized Clinical Trial of Tissue Ultrafiltration and Pressure Monitoring for the Diagnosis and Prevention of Compartment Syndrome*
- United States Army Institute of Surgical Research, Orthopaedic Trauma Research Program (OTRP). Open fracture lavage grant, 2009. *Fluid Lavage of Open Wounds (FLOW): A Multi-Center, Blinded, Factorial Trial Comparing Alternative Irrigating Solutions and Pressures in Patients with Open Fractures*
- National Institute of Health (NIH). Hip fracture treatment grant, 2009.  
*Fixation using Alternative Implants for the Treatment of Hip Fractures (FAITH) :A Multi-Centre Randomized Trial Comparing Sliding Hip Screws and Cancellous Screws on Revision Surgery Rates and Quality of Life in the Treatment of Femoral Neck Fractures*
- Synthes U.S.A., Trauma Division Pelvic Fracture Research Grant, 2010.  
*Assessment of Sagittal Rotational Stability in a Vertically Unstable Pelvic Fracture Model Utilizing Two Different Types of Posterior Fixation Methods.*

Smith and Nephew Tibial Nail Research Grant 2010. *Evaluation of Effects on Cartilaginous Surfaces During Semi-Extended Intramedullary Nailing of the Tibia*

#### **Peer Reviewed Publications:**

1. Holtom PD, **Zamorano DP**, Patzakis M. *Osteomyelitis Attributable to Vancomycin-Resistant Enterococci*. *Clinical Orthopaedics and Related Research* 2002; 403:38-44
2. **Zamorano DP** and Gold S. Reverse Achilles Tendon Allograft Technique for Anterior Cruciate Ligament Reconstruction: A Technical Note. *Arthroscopy: The Journal Arthroscopic and Related Surgery* 2005;(6): 769
3. Kang J, **Zamorano DP**, Gupta R. *Challenge of Limb Salvage with Major Nerve Injuries: Current Management and Future Directions*. *JAAOS* (accepted)

#### **Book Chapters:**

1. *Developmental Hip Dysplasia*. In Berkowitz CD. Ed., *Pediatrics: A Primary Care Approach*, 3<sup>rd</sup> Ed. American College of Pediatrics, 2008
2. *Rotational Problems of the Lower Extremity: In-toeing and Out-toeing*. In Berkowitz CD. Ed., *Pediatrics: A Primary Care Approach*, 3<sup>rd</sup> Ed. American College of Pediatrics, 2008

#### **Scientific Presentations:**

1. *Reverse Achilles Tendon Allograft Technique for Anterior Cruciate Ligament Reconstruction: A Technical Note*. Arthroscopy Association of North America, annual meeting, 2004
2. *Biomechanical Comparison of Trans-sacral Screw Fixation versus Triangular Osteosynthesis in an Unstable Pelvic Fracture Model*. 55<sup>th</sup> Annual Orthopaedic Research Society Annual Meeting. Las Vegas, NV. 2009
3. *Biomechanical Comparison of Locked versus Non-locked Plating for Split-Depressed Tibial Plateau Fractures*. 55<sup>th</sup> Annual Orthopaedic Research Society Annual Meeting. Las Vegas, NV. 2009

4. *Biomechanical Comparison of Locked versus Non-locked Plating for Split-Depressed Tibial Plateau Fractures*. AAOS Annual Meeting in New Orleans, LA. 2010
5. *Biomechanical Comparison of Trans-sacral Screw Fixation versus Triangular Osteosynthesis in an Unstable Pelvic Fracture Model*. AAOS Annual Meeting in New Orleans, LA. 2010
6. *Fixation of Unstable Intertrochanteric Fractures with Multi and Uni-planar Screw Design Femoral Locking Plates*. 56<sup>th</sup> Annual Orthopaedic Research Society Annual Meeting. New Orleans, LA. 2010
7. *Biomechanical Comparison of Trans-sacral Screw Fixation versus Triangular Osteosynthesis in an Unstable Pelvic Fracture Model*. American Orthopaedic Association's 123rd Annual Meeting, San Diego, California, 2010.
8. *Semi-extension Nailing: Is the Patellofemoral Joint Safe?* 26<sup>th</sup> Annual Orthopaedic Trauma Association Annual Meeting, Baltimore, Maryland, 2010

#### **Works in Progress:**

Assesment of renal function in trauma patients with open fractures at a level I trauma center

Biomechanical evaluation of marginal impaction and it's effect on hip joint contact forces

Orthopaedic trauma database as a method of data collection for orthopaedic research

Biomechanical Comparison of Two Proximal Femoral Locking Plates in an Unstable Hip Fracture Model

Intramedullary Nailing for Treatment of Unstable Intertrochs (INTUIT) Outcome Study

A Phase 2, Multicenter, Double-Blind, Randomized, Stratified, Controlled, Efficacy, Safety and Feasibility Study of rhBMP-2/CPM as an Adjuvant Therapy in Closed Fractures of the Humerus

A Phase 2/3, Multicenter, Double-Blind, Randomized, Controlled Study of Recombinant Human Bone Morphogenetic Protein-2 (Rhbmp-2)/Calcium Phosphate Matrix (CPM) in Closed Diaphyseal Tibial Fractures

Anterior Pelvic Plate Fixation in Unstable Pelvic Fractures associated with Concomitant Genitourinary Injuries.

Prospective Analysis of Forearm Plating Versus Hybrid Plate-Nail Fixation.

Review of 10 Year Experience of Pilon Fracture Fixation Through a Posterior Approach

Inter- and Intra-Observer Reliability of the Young-Burgess Classification of Pelvic Fractures

**Invited Lectures:**

*Slipped Capital Femoral Epiphysis.* Orthopaedic Hospital Grand Rounds. Los Angeles, California, 2001

*Essentials of Gait Analysis.* Orthopaedic Hospital Grand Rounds. Los Angeles, California, 2001

*Reverse Achilles Tendon Allograft Technique for Anterior Cruciate Ligament Reconstruction: A Technical Note.* Dana Street Alumni Day, Harbor/UCLA Department of Orthopaedic Surgery, Torrance, California, 2002

*Cost Effectiveness of Bone Scans in Children with Undiagnosed Foot Pain.* Shriner's Hospital for Crippled Children. Los Angeles, California, 2004

*The Unstable Pelvis: What is the Role of Angiography?* Dana Street Alumni Day, Harbor/UCLA Department of Orthopaedic Surgery, Torrance, California, 2005

*Acetabulum Part I: Classification and Radiographic Interpretation.* Department of Orthopaedic Surgery Grand Rounds, Harbor/UCLA Medical Center, Torrance, California, 2005

*Proximal Tibia Fractures.* Advances in Locked Plating Symposium. San Diego, California, 2005

*Evolution, Biomechanics and Engineering Principles of Locking Compression Plates.* Treatment Options for Difficult Fractures: An Advanced Technology Symposium. Coronado, California, 2005

*Evolution, Biomechanics and Engineering Principles of Locking Compression Plates.* Treatment Options for Difficult Fractures: An Advanced Technology Symposium. Coronado, California, 2005

*Anterior Pelvic Plating of Pelvic Fractures with Concomitant Urologic Injuries.* Dana Street Alumni Day, Harbor/UCLA Department of Orthopaedic Surgery, Torrance, California, 2006

*Distal Tibia Fractures.* Department of Orthopaedic Surgery Grand Rounds, University of Texas, Houston, March 2007

*Radiologic Assessment of the Acetabulum.* Department of Orthopaedics Resident Lecture Series. University of California, Irvine, October 2007

*Pertrochanteric Hip Fractures,* University of Hawaii Resident Forum, University of Hawaii, Waikiki, Hawaii, February 2008

*Hip Fractures: New technology in the treatment of the unstable intertrochanteric fracture.* University of Hawaii Resident Forum. Waikiki, Hawaii, February 2008

*Radiologic Assessment of the Acetabulum.* Department of Orthopaedics Resident Lecture Series. University of California, Irvine, July 2008

*Acute Management of Pelvic Ring Injuries.* University of California, Irvine. General Surgery Grand Rounds. October 2008

*Evolutions in Hip Fracture Management.* Community lecture. Long Beach, CA. November 2008.

*Semi-extended Tibial Nailing.* Community lecture. Long Beach, CA. November 2008.

*Proximal Humerus Fractures.* Master's Fracture Forum. Huntington Beach, CA 2009

*Fractures of the Proximal Humerus.* UCI Department of Orthopaedic Surgery Shoulder Symposium. Graduation Research Forum, 2009

*Tibial Plateau Fractures: Do We Really Need Locked Plating?* Dana Street Alumni Day, Harbor/UCLA Department of Orthopaedic Surgery, Torrance, California, 2009

*Radiographic Evaluation and Classification of Pelvic Ring Disruptions.* Basic Principles and Techniques of Operative Fracture Management Course for Residents. AO North America. La Jolla, CA, 2009

*Tibial Nailing: Sometimes It's Okay to be Semi-extended. SEMI EXTENDED META NAIL PROGRAM.* Smith and Nephew Mobilab lecture and demonstration. Irvine, CA, 2009

*Tibial Nailing: Sometimes It's Okay to be Semi-extended. SEMI EXTENDED META NAIL PROGRAM.* Smith and Nephew Mobilab lecture and demonstration. San Francisco, CA, 2009

*Tibial Plateau Fractures.* Basic Principles and Techniques of Operative Fracture Management Course for Residents. AO North America. Phoenix, AZ, 2010

*Femoral Shaft Fractures.* Basic Principles and Techniques of Operative Fracture Management Course for Residents. AO North America. Phoenix, AZ, 2010

*Intramedullary Nailing Lab Moderator.* Basic Principles and Techniques of Operative Fracture Management Course for Residents. AO North America. Phoenix, AZ, 2010

*Fixation of Proximal Femur Fracture Lab Moderator.* AO North America. Principles Course for Operating Room Personnel. La Jolla, CA, 2010

*Indications for Fixation of Proximal Femur Fractures.* AO North America. Principles Course for Operating Room Personnel. La Jolla, CA, 2010

*Fractures of the Distal Humerus.* Masters Fracture Forum. Huntington Beach, CA, 2010

*IM Nailing: Tips, Tricks & Pitfalls.* Advanced Techniques for IM Nailing. Los Angeles, CA, 2010

*Fractures of the Distal Femur.* Surgical Approaches and Internal Fixation (SAIF) Course. Orange, CA, 2010

### **Invited Faculty:**

*The Family Medicine Board Review.* West Coast Faculty Lecturer. Los Angeles, California, 2004

*Zimmer Residents Program Trauma Course.* Pasadena, California, 2005

*Treatment Options for Difficult Fractures: An Advanced Technology Symposium.* Coronado, California, 2005

*Orthopaedic Management of the Trauma Patient.* General Surgery Trauma Conference. Harbor/UCLA Medical Center. Torrance, California, 2005

*Advances in Locked Plating*, Smith and Nephew. San Diego, California, 2005

*AONA Orthopaedic Room Personnel Basic Course*. Pasadena, California, 2006

*Orthopaedic Trauma: Concepts to Controversies*. Snowmass, Colorado, February 2008

University of Hawaii Resident forum. Waikiki, Hawaii, 2008

Master's Fracture Forum. Huntington Beach, CA 2009

AO North America Faculty. Basic Principles and Techniques of Operative Fracture Management Course for Residents. La Jolla, CA, 2009

AO North America Faculty. Basic Principles and Techniques of Operative Fracture Management Course for Residents. Phoenix, AZ, 2010

AO North America Faculty. Principles Course for Operating Room Personnel. La Jolla, CA, 2010

Master's Fracture Forum. Huntington Beach, CA 2010

Synthes Distal Tibia Plating System Working Group. Paoli, PA. 2010

Orthopaedic Trauma Association Resident's Fracture Course. Lab instructor. Baltimore, MD, 2010

26<sup>th</sup> Annual Orthopaedic Trauma Association Meeting. Semi-extended Nailing Lab Instructor. Baltimore, MD, 2010

### **Media Consulting**

1. The Discovery Channel/World of Wonder, Medical Consultant
2. Telepictures Productions/Warner Bros. Television Distribution, Medical Consultant

### **Professional Organizations:**

California Orthopaedic Association, member

Los Angeles Biomedical Research Institute

California Orthopaedic Association, member, 2008-present

UCI Physicians and Surgeons, 2007-present

American Orthopaedic Association: Emerging Leaders Program, 2008-present

Orthopaedic Trauma Association, member, 2010

American Academy of Orthopaedic Surgeons, Fellow, 2010

**Professional Certification:**

State of California Board of Medical Examiners, 2001

DEA Certified, 2001

Diplomate of American Board of Orthopaedic Surgeons, 2008

**Committee Positions Held:**

Harbor/UCLA Medical Center Operating Room Committee, 2005-7

Harbor/UCLA Medical Center Joint Trauma Committee, 2005-7

UC Irvine Medical Center Trauma PI Committee, 2007-present

UCI Orthopaedic Surgery Residency Education Committee, 2007-present

UCI Orthopaedic Surgery Compensation Plan Committee, 2007-present

UCI Orthopaedic Surgery Residency Selection Committee, 2007-present