

Presented by the  
**Departments of Orthopaedic Surgery and Neurological Surgery**  
University of California, San Francisco

# 16<sup>TH</sup> ANNUAL UCSF SPINE SYMPOSIUM

HILTON SAN FRANCISCO FINANCIAL DISTRICT

## UCSF COURSE DIRECTORS

### **Sigurd Berven, MD**

Professor of Orthopaedic Surgery  
Chief of Orthopaedic Spine Service

### **Praveen Mummaneni, MD, MBA**

Professor and Vice Chair of Neurological  
Surgery; Director, UCSF Spine Center

### **Conor O'Neill, MD**

Professor of Orthopaedic Surgery

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## SPECIAL GUEST FACULTY

### **Richard Derby, MD**

Spinal Diagnostics &  
Treatment Center  
Daly City, CA

### **James S. Harrop, MD**

Thomas Jefferson  
University Hospitals  
Philadelphia, PA

### **Juan Uribe, MD**

Barrow Neurological Institute  
Phoenix, AZ

### **James N. Weinstein, MD**

Senior Vice President  
Microsoft Healthcare  
Lyme, NH

FRIDAY - SATURDAY

# May 20-21, 2022

[spinesymposium.ucsf.edu](http://spinesymposium.ucsf.edu)

The UCSF Spine Symposium is an annual two-day event emphasizing pioneering trends in diagnostic and therapeutic strategies for patients suffering from spinal disorders. This course is designed to be interactive with talks given by leaders in the spine community. All lectures are followed by case discussions aimed at highlighting key issues in breakthrough treatments. The course is designed for neurosurgeons, orthopedists, nurses, physical therapists, physiatrists, anesthesiologists, pain specialists as well as primary care providers.

#### OBJECTIVES

The purpose of this course is to increase competence and improve clinical practice in the management of patients with spinal pathologies. Attendees will be better equipped to:

- Evaluate and treat spinal pain in a cost effective and reliable manner based on recently published guidelines;
- Identify appropriate indications for surgery of the painful, degenerated spine and identify the appropriate surgical approach based on recently published guidelines;
- Evaluate and treat lumbar degenerative disease and deformity in a cost effective manner and avoid perioperative complications by identifying risk factors that may predispose to morbidity;
- Determine pain management strategies for patients with spine-related pain;
- Increase utilization and competence with NASS spinal stenosis guidelines and the AANS-CNS cervical spine guidelines;
- Provide physical exams that include a process to identify lower extremity pain that dissipates while sitting and exacerbates with standing or walking;
- Identify spinal instability related to spinal tumors and formulate surgical treatment plans to deal with neurological deficits and pain in spine oncology patients based on recently published guidelines.



#### Hilton San Francisco Financial District

#### ACCREDITATION

The University of California, San Francisco School of Medicine (UCSF) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

UCSF designates this live activity for a maximum of **14.75 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This CME activity meets the requirements under California Assembly Bill 1195, continuing education and cultural and linguistic competency.

#### Pain Management and End-of-Life Care

The approved credits shown above include a maximum of **7.25 Pain Credits** toward meeting the requirement under California Assembly Bill 487, Pain Management and End-of-Life Care.

#### Nurses

For the purpose of recertification, the American Nurses Credentialing Center accepts **AMA PRA Category 1 Credit™** issued by organizations accredited by the ACCME.

#### Physician Assistants

American Academy of Physician Assistants accepts category 1 credit from AOACCME, Prescribed credit from AAFP, and **AMA PRA Category 1 Credit™** from organizations accredited by the ACCME.

# 16<sup>TH</sup> Annual UCSF SPINE SYMPOSIUM

## FRIDAY, MAY 20, 2022

7:00 am	<i>Registration and Continental Breakfast</i>	
7:55	<b>Welcome and Introduction</b>	Course Chairs
<b>I. Diagnosis of Spinal Pain</b> • Moderator: Dr. Conor O'Neill		
8:00	<b>P Innovations in Imaging of the Lumbar Spine - Implications for Intra-discal Therapies</b>	Dr. Aaron Fields
8:20	<b>P Intra-discal therapies for Chronic Low Back Pain</b>	Dr. Conor O'Neill
8:40	<b>P Cervical Inter-laminar vs. Transforaminal Injections - What's the Evidence?</b>	Dr. Lyndly Tamura
9:00	<b>P Prolotherapy and Other Complementary Therapies for Chronic Low Back Pain</b>	Dr. Heidi Reetz
9:20	<b>P The MILD Procedure for Treatment of Lumbar Spinal Stenosis</b>	Dr. Chris Abrecht
9:40	<b>P Risk Stratification in Chronic Low Back Pain</b>	Dr. Patricia Zheng
10:00	<b>P Case Studies/Q&amp;A</b>	Dr. Conor O'Neill
10:30	<i>Coffee Break</i>	
<b>II. Management of Spinal Pain</b> • Moderator: Dr. Conor O'Neill		
10:45	<b>P PRP and Other Regenerative Therapies for Spinal Disc and Joint Pain - Hope or Hype?</b>	Dr. Peter I-Kung Wu
11:05	<b>P Pain Management in the Age of Telemedicine</b>	Dr. Melanie M. Henry
11:25	<b>P The Role of the Paraspinal Muscles in Low Back Pain</b>	Dr. Sibel Deviren
11:45	<b>P Basivertebral Nerve Ablation for Chronic Low Back Pain</b>	Dr. Matthew Smuck
12:05 pm	<b>P The Spectrum of Care for Piriformis Syndrome - Conservative to Operative</b>	Dr. Lines Jacques
12:25	<b>Guest Lecture Introduction</b>	Dr. Conor O'Neill
12:30	<b>P Reflections on Interventional Diagnosis and Treatment of Spinal Pain</b>	Dr. Richard Derby
1:00	<i>Boxed Lunch in Exhibit Hall (included in registration fee)</i>	
<b>III. Updates and Controversies in the Management of Common Spinal Pathologies</b> Moderator: Dr. Sigurd H. Berven		
2:00	<b>Post-op Pain Management</b>	Dr. Guan Zhonghui
2:20	<b>Guest Lecture Introduction</b>	Dr. Sigurd Berven
2:25	<b>Virtual Presentation</b> <b>The Role of Technology in Patient Care and Empowerment of Informed Choice</b>	Dr. James N. Weinstein
2:55	<b>Question and Answer</b>	
3:10	<i>Coffee Break</i>	
<b>IV. Case Presentation</b> • Moderator: Dr. Praveen Mummaneni		
3:30	<b>P Cervical Radiculopathy – Case Presentation and Panel Discussion</b>	<i>Panel:</i> Dr. R. Derby, Dr C. Miller, Dr. B. Tay
3:45	<b>P Lumbar Symptomatic Disc Degeneration – Case Presentation and Panel Discussion</b>	<i>Panel:</i> Dr. A. Dang, Dr. C. O'Neill, Dr. L. Tan, Dr. J. Uribe
4:00	<b>P Cervical Myelopathy – Case Presentation and Panel Discussion</b>	<i>Panel:</i> Dr. A. Di Giorgio, Dr. P. Mummaneni, Dr. A. Theologis, Dr. D. Wang, Dr. P. Wu
4:15	<b>P Lumbar Spondylolisthesis – Case Presentation and Panel Discussion</b>	<i>Panel:</i> Dr. A. Clark, Dr. S. Deviren, Dr. L. Metz, Dr. L. Tan, T. Jones, PA-C
4:30	<b>P Adult Degenerative Scoliosis – Case Presentation and Panel Discussion</b>	<i>Panel:</i> Dr. D. Chou, Dr. V. Deviren, Dr. J. Uribe, Dr. P. Zheng
4:55	<i>Adjourn</i>	
5:00 pm	<i>Wine Tasting Reception in Exhibit Hall</i>	

**Hilton San Francisco  
Financial District**  
750 Kearny Street  
San Francisco, CA 94108  
(415) 433-6600





## SATURDAY, MAY 21, 2022

7:00 am *Registration and Continental Breakfast*

### V. Healthcare Reform – Economics of Managing Spinal Disorders

Moderators: Dr. Sigurd H. Berven Dr. Praveen Mummaneni

7:30	<b>Healthcare Economics in the Management of Spinal Disorders- Burden of Spinal Disorders on the Healthcare Economy</b>	Dr. Sigurd H. Berven
7:50	<b>Cost and Value in the Management of Spinal Disorders – a Healthcare Economist Perspective</b>	Dr. Leslie Wilson
8:10	<b>Guest Lecture Introduction</b>	Dr. Praveen Mummaneni
8:15	<b>Evolution of Lateral Interbody Fusion: From Inception to Current</b>	Dr. Juan Uribe
8:45	<b>Evidence in the Management of Spinal Disorders – Large Data, AI, and Machine Learning</b>	Dr. Thomas Peterson
9:05	<b>Spine Surgery During the COVID Pandemic</b>	Dr. Praveen Mummaneni
9:25	<b>Guest Lecture Introduction</b>	Dr. Praveen Mummaneni
9:30	<b>Evidence Based Medicine for Lumbar Fusion</b>	Dr. James S. Harrop
10:00	<b>Question and Answer</b>	
10:20	<i>Coffee Break</i>	

### VI. Alternative Payment Models • Moderator: Dr. Sigurd H. Berven

10:40	<b>BCPI and the UCSF Experience</b>	Dr. Gina Intinarelli
11:00	<b>The Payer's Perspective on Costs and Value - What Metrics Matter</b>	Dr. Leslie Black
11:20	<i>Course Luncheon (included in registration fee)</i>	

### VII. Perspectives on the Management of Specific Cases • Moderator: Dr. Praveen Mummaneni

12:30 pm	<b>Lumbar Disc Herniation- Ambulatory vs. Inpatient</b>	Dr. Tarun Arora
12:50	<b>Degenerative Spondylolisthesis</b>	Dr. Catherine Miller
1:10	<b>Complex Spinal Deformity- Primary</b>	Dr. Dean Chou
1:30	<b>High Risk Spinal Trauma</b>	Dr. Anthony Di Giorgio
1:50	<b>High Risk Patient with Spinal Disorders</b>	Dr. Alekos Theologis
2:10	<b>Impact of Complications on Outcome and Cost of Care, Classification of Complications, Strategies for Avoiding Complications, and Risk</b>	Dr. Lionel Metz
2:30	<b>When to Say No to Surgery</b>	Dr. Bobby Tay
2:50	<b>Avoiding Neurological Deficits During Spine Surgery</b>	Dr. Lee Tan
3:10	<b>MIS Strategies for Patients with Medical Co-Morbidities</b>	Dr. Aaron Clark

### VIII. Spinal Surgery/ Case Presentation • Moderator: Dr. Praveen Mummaneni

3:30	<b>Round Table Interdisciplinary Discussion</b>	
	<b>Table 1</b> – Dr. Sigurd Berven/ Dr. Phillip Kissel/ Dr. Patricia Zheng/ Dr. Valli Mummaneni/ Dr. Jay K. Morgan/ Dr. Leslie C. Robinson	
	<b>Table 2</b> – Dr. Praveen Mummaneni/ Dr. Lionel Metz/ Dr. Peter I-Kung Wu	
	<b>Table 3</b> – Dr. Conor O'Neill/ Dr. Lee Tan/ Dr. Alekos Theologis	
	<b>Table 4</b> – Dr. Dean Chou/ Candita Rodriguez, NP/ Dr. Bobby Tay	

4:15 **Question and Answer Session**

4:35 pm *Adjourn*

P • Pain Credit

program

#### GENERAL INFORMATION

Advance registration closes at 10:00 am on Thursday, **May 19, 2022**. On-site registration fees will apply after advance registration closes.

#### HOW TO ENROLL

##### Early Bird Rates prior to 2/28/22

<b>Tuition:</b>	Physicians	<b>\$400</b> by 2/28/22
		<b>\$475</b> after 2/28/22
	Nurses/Pharmacists/Advanced Health Practitioners/Residents/Fellows	<b>\$300</b> by 2/28/22
		<b>\$375</b> after 2/28/22

\* Onsite registration will be \$50 additional  
Payment can be made by American Express, Visa, MasterCard or check.

#### REGISTER VIA:

**Online:** [cme.ucsf.edu](http://cme.ucsf.edu)

**Mail:** Complete course registration form and send with payment to:  
UCSF Office of CME  
490 Illinois St., Floor 8  
San Francisco, CA 94143

**Phone:** To register by phone or to inquire about registration status, please call UCSF's CME Registration Office at (415) 476-5808.

Please check our website for up-to-date information on the course: [cme.ucsf.edu](http://cme.ucsf.edu)

**On-Site Registration:** Generally we are able to accommodate on-site registration at our courses, however pre-registration is preferred to ensure that we have adequate course materials.

For more information or to register online visit our website at [cme.ucsf.edu](http://cme.ucsf.edu). You may also reach us by calling the Office of CME at (415) 476-4251 or emailing [info@ocme.ucsf.edu](mailto:info@ocme.ucsf.edu).

#### UPCOMING COURSES

##### Neurosurgery Update 2022

Thursday, August 4 – Saturday, August 6, 2022  
Silverado Resort – Napa, California

##### Pediatric and Adult Spinal Deformity Surgery

Wednesday, July 13 – Saturday, July 16, 2022  
Royal Hawaiian – Honolulu, Hawaii

##### 11th Spinal Surgery Bioskills Lab

Friday, November 4 – Saturday, November 5, 2022  
Vdara Hotel – Las Vegas, Nevada

# UCSF

University of California,  
San Francisco  
Office of CME • Box 0742  
490 Illinois St., Floor 8  
San Francisco, CA 94143

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Director, UCSF Spine Center

##### **Conor O'Neill, MD**

Professor of Orthopaedic Surgery

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Medical Director, Spinal Diagnostics  
& Treatment Center, Daly City, CA

##### **James S. Harrop, MD**

Professor and Director, Division of  
Spine and Peripheral Nerve Surgery  
Co-Director Neurologic Surgery  
Quality and Safety Neurosurgery  
Director of Delaware Valley  
SCI Center, Thomas Jefferson  
University Hospitals, Philadelphia, PA

##### **Juan Uribe, MD**

Chief, Spinal Disorders;  
Sonntag Chair of Spine Research  
Vice Chair, Neurosurgery  
Barrow Neurological Institute,  
Phoenix, AZ

##### **James N. Weinstein, DO, MS**

Senior Vice President, Microsoft  
Healthcare, Lyme, NH

#### COURSE FACULTY

(University of California, San Francisco  
unless indicated)

##### **Christopher R. Abrecht, MD**

Assistant Professor of Anesthesia;  
Director, Chronic Pain Service

##### **Tarun Arora, MD**

Assistant Professor of Neurological  
Surgery

##### **Leslie Black, MD**

Department of Orthopaedic Surgery

##### **Dean Chou, MD**

Professor of Neurological Surgery

##### **Aaron Clark, MD, PhD**

Associate Professor of Neurological  
Surgery

##### **Alan Dang, MD**

Associate Professor of Orthopaedic  
Surgery

##### **Anthony DiGiorgio, DO, MHA**

Assistant Professor of Neurological  
Surgery

##### **Sibel Deviren, MD**

Professor, Department of  
Orthopaedic Surgery

##### **Vedat Deviren, MD**

Professor of Orthopaedic Surgery

##### **Aaron Fields, PhD**

Associate Professor of  
Orthopaedic Surgery

##### **Melanie M. Henry, MD, MPH**

Professor of Anesthesia

##### **Line Jacques, MD**

Professor of Neurological Surgery,  
John Adams Endowed Professorship;  
Director of Peripheral Nerve and  
Pain Surgery

##### **Teresa Jones, PA-C**

Physician Assistant Specialist

##### **Gina Intinarelli, PhD, MS**

Associate Dean, Clinical Affairs,  
School of Nursing;  
Vice President, Office of Population  
Health and Accountable Care

#### COURSE FACULTY (CONT'D)

##### **Phillip Kissel, MD, FACS**

Clinical Professor Department of  
Neurological Surgery, UCSF  
Director of Neurological Surgery,  
Sierra Vista Regional Medical Center,  
San Luis Obispo, CA

##### **Lionel N. Metz, MD**

Assistant Professor of Orthopaedic  
Surgery

##### **Catherine Miller, MD**

Assistant Professor of Neurological  
Surgery

##### **Jay K. Morgan, MD**

Neurosurgeon, Sierra Neurosurgery  
Group, Reno, NV

##### **Valli P. Mummaneni, MD**

Associate Professor of Anesthesia

##### **Thomas Peterson, Jr., PhD**

Assistant Professor of Orthopaedic  
Surgery

##### **Heidi Reetz, MD**

Assistant Professor of Anesthesia

##### **Candita Rodriguez, NP**

Department of Neurological Surgery

##### **Lee Tan, MD**

Assistant Professor of Neurological  
Surgery

##### **Bobby Tay, MD**

Professor of Orthopaedic Surgery

##### **Alekos Theologis, MD**

Assistant Professor of Orthopaedic  
Surgery

##### **Doris Wang, MD, PhD**

Assistant Professor of Neurological  
Surgery

##### **Leslie Wilson, PhD**

Professor of Medicine and Pharmacy

##### **Peter I-Kung Wu, MD, PhD**

Assistant Professor of Orthopaedic  
Surgery

##### **Patricia Zheng, MD**

Assistant Professor of Orthopaedic  
Surgery

# faculty

REGISTRATION • MOR22003

**16<sup>TH</sup> ANNUAL UCSF SPINE SYMPOSIUM****May 20-21, 2022****Hilton San Francisco Financial District**

Mail to : UCSF Office of CME  
490 Illinois St., Floor 8  
San Francisco, CA 94143


**Online registration:** [spinesymposium.ucsf.edu](http://spinesymposium.ucsf.edu)  
Registration Information: (415) 476-5808  
Course Information: (415) 476-4251

Dr.  Ms.  Mr.  Mrs.  Mx.

_____ LAST NAME	_____ FIRST	_____ M.I.
_____ DEGREE	_____ SPECIALTY	
_____ ADDRESS		
_____ CITY	_____ STATE	_____ ZIP
_____ DAYTIME PHONE	_____ FAX	
_____ EMAIL		

**Address Label Code Letter (see address label: example, A, B, C, D, etc.)** \_\_\_\_\_

Would you like to be on our priority email list?  Yes  No

 Please indicate if you have any special needs: \_\_\_\_\_

**Registration Fees:**

Postmarked By 2/28/22  **\$400** Physicians

After 2/28/22  **\$475** Physicians

Postmarked By 2/28/22  **\$300** Nurses/Pharmacists/Adv. Health Practitioners/Residents/Fellows

After 2/28/22  **\$375** Nurses/Pharmacists/Adv. Health Practitioners/Residents/Fellows

\*\*Beginning on 5/17/22, registration will be \$50 additional.

Check enclosed payable to *UC Regents*

Please charge my credit card:  Visa  MasterCard  AmEx for \$ \_\_\_\_\_

_____ CARD #	_____ EXPIRATION DATE
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_____ NAME ON CARD (PLEASE PRINT)	_____ AUTHORIZED SIGNATURE
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**Refund Policy:** Cancellations received in writing before May 17, 2022 will be refunded, less a \$100 administrative fee. No refunds will be made on cancellations received after May 17, 2022.

Please check our website for up to date information on the course: [spinesymposium.ucsf.edu](http://spinesymposium.ucsf.edu)

**REFUND POLICY**

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**CONFERENCE LOCATION**

Enjoy San Francisco's renowned attractions such as the historic cable cars, shopping in Union Square, or visit San Francisco's culinary hub at the Ferry Building.

The **Hilton San Francisco Financial District** is just steps from the famed North Beach and Jackson Square as well as within walking distance to the Embarcadero waterfront and Fisherman's Wharf. A block of guestrooms has been reserved at the special UCSF conference rate of **\$249/night**. You are urged to make your reservations early. The cut off date is **April 20, 2022**, or until the group room block is filled.

After this date, rooms will be provided on a space-available basis only. To make hotel reservations please visit the course webpage on our website at [spinesymposium.ucsf.edu](http://spinesymposium.ucsf.edu) and click on the reservations link in the Travel & Lodging section. You can also call Hilton Reservations at 800-424-8292 to reserve by phone.

*By staying at the host hotel, you help UCSF meet its contractual obligations and keep registration fees reasonable.*

**AIR TRANSPORTATION**

UCSF has negotiated special fares with United Airlines for our course attendees. You may use the following code to book on your own:

United – [www.united.com](http://www.united.com) • code: ZK47190520

You can also visit the course webpage on our website at [spinesymposium.ucsf.edu](http://spinesymposium.ucsf.edu) and find direct links for United in the Travel & Lodging section.