

28 YEARS AS THE LEADING WINTER SPINE MEETING

# SPINE

BASE to SUMMIT

JANUARY  
18-21, 2018

THE PARK HYATT  
BEAVER CREEK, CO

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Phoenix, AZ

**Alex Vaccaro, MD, PhD**  
The Rothman Institute  
Philadelphia, PA

*“Great speakers and content  
year after year”*

## Dear Colleague:

**Spine: Base to Summit** provides attendees with access to exceptional faculty and a quality educational experience, all located at the base of the rugged Beaver Creek slopes. The meeting has built an exemplary reputation as being the **# 1 winter meeting** for over 28 years. Attendees continue to rank this meeting as being a “highlight” on their annual calendars. Highlights include:

- Remarkable camaraderie with more than **100 surgeons and colleagues**
- A collegial atmosphere in which to enhance your spine surgery skills

Base to Summit aims to provide a more practical, interactive means of receiving continuing medical education than those of other major spine meetings.

Be sure to visit [www.regonline.com/BasetoSummit2018](http://www.regonline.com/BasetoSummit2018) to reserve your spot as space fills up rapidly.

We hope you'll join us in Beaver Creek!

Best regards,

## COURSE CO-DIRECTORS

**Todd Albert, MD**  
**Sig Berven, MD**

**Michael Fehlings, MD, PhD**  
**Reg Haid, MD**

**Larry Lenke, MD**  
**Chris Shaffrey, MD**

## COURSE OBJECTIVES

*After completing this activity, the participant should be better able to:*

- Describe the rationale, techniques, and relative merits of various MIS and open surgical procedures for managing lumbar and cervical degenerative, adult deformity, trauma, and tumor cases.
- Discuss ways to avoid and /or manage spinal surgery complications.
- Identify practical steps to enhance patient safety from pre-op to post-op for all types of spine surgery.



*“I like the interactive approach!”*

### WHO SHOULD ATTEND?

This advanced course is for orthopaedic and neurological surgeons, fellows, and residents who include spine surgery in their practices.

### ACCREDITATION STATEMENT

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Medical Education Resources (MER) and BroadWater. MER is accredited by the ACCME to provide continuing medical education for physicians.

### CREDIT DESIGNATION

Medical Education Resources designates this live activity for a maximum of 13.5 *AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.

### DISCLOSURE POLICY

Medical Education Resources insures balance, independence, objectivity, and scientific rigor in all our educational activities. In accordance with this policy, MER identifies conflicts of interest with its instructors, content managers, and other individuals who are in a position to control the content of an activity. Conflicts are resolved by MER to ensure that all scientific research referred to, reported, or used in a CME activity conforms to the generally accepted standards of experimental

design, data collection, and analysis. MER is committed to providing its learners with high-quality CME activities that promote improvements or quality in health care and not the business interest of a commercial interest.

### PROVIDERSHIP

This activity is jointly provided by Medical Education Resources, Inc., a non-profit medical education company and BroadWater, LLC.

### COMMERCIAL SUPPORT

Various medical companies have been invited to exhibit at this course. Full disclosure of financial and other types of support will be disclosed in the course syllabus materials.

# PROGRAM

## THURSDAY, JANUARY 18

|  |  |                      |
|--|--|----------------------|
| 4:00 PM  | Welcome  | C. SHAFFREY, MD      |
| <b>SESSION 1: The Best Technique Is...</b>   |  | MOD: R. HAID, MD     |
| 4:05   | <b>Cervical deformity with myeloradiculopathy: <i>The best technique is...</i></b><br>Posterior spine decompression and fusion, without osteotomies. What characteristics make this an option? | T. ALBERT, MD        |
| 4:13   | Multilevel anterior decompression: When is posterior surgery not needed?   | M. FEHLINGS, MD, PHD |
| 4:21   | Correction of entire cervical deformity with three column osteotomies  | J. RHEE, MD          |
| 4:29   | "The enemy of good is perfect." When is a multi level ACDF with good but not perfect correction good enough? When should you go for a home run with osteotomies but higher complications?      | R. HAID, MD          |
| <b>Thoracolumbar trauma: <i>The best technique is...</i></b>   |  |                      |
| 4:50   | Open treatment of burst fracture—posterior only. Is there any role for direct decompression?   | A. VACCARO, MD, PHD  |
| 4:58   | Percutaneous stabilization   | G. MUNDIS, MD        |
| 5:06   | Non-operative only   | J. DIMAR, MD         |
| <b>L4-L5 Spondylolisthesis with central stenosis with back and leg pain: <i>The best technique is...</i></b> |  |                      |
| 5:25   | Instrumentation and posterolateral fusion alone  | J. DIMAR, MD         |
| 5:33   | Open TLIF  | C. SHAFFREY, MD      |
| 5:41   | MIS TLIF   | H. BAE, MD           |
| 6:00   | <b>Special Lecture: Anthropological basis for bipedal posture and evolutionary changes over time in lumbar lordosis and spinopelvic incidence.</b>   | J. DIMAR, MD         |
| 6:30   | Welcome reception  |                      |

## FRIDAY, JANUARY 19

|   |   |   |
|---|---|---|
| 7:00 AM   | Welcome   |   |
| <b>SESSION 2: Patient Safety in Spine Surgery</b> |   | MOD: S. BERVEN, MD  |
| <b>PREOPERATIVE</b>                               |   |   |
| 7:05  | Patient selection, case selection for surgery at an ASC   | H. BAE, MD  |
| 7:15  | Risk stratification: Practical applications/predictive modeling and patient informed choice including contraindications to surgery                              | J. SMITH, MD  |
| 7:35  | <b>Case Discussion:</b> Complex adult deformity with comorbidities: Operate now because comorbidities are not reasonably modifiable, or optimize preoperatively | MOD: S. BERVEN, MD<br>PANEL: T. ALBERT, MD;<br>L. LENKE, MD; R. LEHMAN,<br>MD; J. SMITH, MD |

|   |   |                      |
|---|---|----------------------|
| <b>INTRAOPERATIVE</b>   |   |                      |
| 7:50  | Which cases do we really need to monitor and how? SEP, EMG, running EMG, motor: XLIF, ALIF, pedicle screws, deformity, cervical deformity                     | R. LEHMAN, MD        |
| 8:05  | Management of blood loss in ALL cases, and how to manage large blood loss   | C. SHAFFREY, MD      |
| <b>PERIOPERATIVE</b>  |   |                      |
| 8:30  | Perioperative pain management in all cases, from ASCs to major deformity: What to do for the narcotic dependent patient, PO, IV, PCA, and management of ileus | G. MUNDIS, MD        |
| <b>SESSION 3: Cervicothoracic Deformity</b>   |   | MOD: T. ALBERT, MD   |
| <b>Debate:</b> Evaluation and impact of cervical deformity; normal vs abnormal cervical alignment. When are measurement of alignment parameters needed, and how extensive of an evaluation is needed? |   |                      |
| 8:55  | I prefer quick and to the point   | A. VACCARO, MD, PHD  |
| 9:03  | I prefer slow and checking all of the boxes   | J. SMITH, MD         |
| 9:15  | Cervical osteotomy: Decision making and technique, pearls and pitfalls  | J. RHEE, MD          |
| <b>Debate:</b> Cervical stenosis with myelopathy with neutral / slight lordosis   |   |                      |
| 9:32  | Posterior decompression, instrumentation and fusion   | A. VACCARO, MD, PHD  |
| 9:40  | Laminoplasty  | J. RHEE, MD          |
| 9:48  | Multi-level anterior discectomy and fusion  | R. HAID, MD          |
| 10:02   | Timing of surgery in the mildly symptomatic patient with myelopathy due to cervical stenosis  | M. FEHLINGS, MD, PHD |
| 10:20   | Adjourn   |                      |
| 10:30–11:30   | Participant cases for small group discussion  |                      |

### Friday PM

|                                    |   |   |
|------------------------------------|---|---|
| 4:15 PM                            | Non-CME Workshops                           |   |
| <b>SESSION 4: Case Discussions</b> |   |   |
| 5:15                               | Option 1: Cervical trauma                   | MOD: M. FEHLINGS, MD, PHD<br>PANEL: R. HAID, MD; J. RHEE, MD; H. BAE, MD; A. VACCARO, MD, PHD       |
|                                    | Option 2: Deformity correction—MIS and open | MOD: R. LEHMAN, MD<br>PANEL: S. BERVEN, MD; L. LENKE, MD; J. URIBE, MD; G. MUNDIS, MD; J. DIMAR, MD |
| 6:15                               | Adjourn                                     |   |

## SATURDAY, JANUARY 20

|   |  |                      |
|---|--|----------------------|
| 7:00 AM   | Welcome  |                      |
| <b>SESSION 5: Thoracolumbar Trauma</b> MOD: A. VACCARO, MD, PHD               |  |                      |
| 7:05  | What's new in the surgical management of thoracolumbar trauma, and what I can apply now? MRI interpretation, clinical prognosis, MIS   | J. URIBE, MD         |
| 7:10  | <b>Special lecture: Update on spinal cord injury treatment, and where is science leading us</b>  | M. FEHLINGS, MD, PHD |
| 7:35  | Technique video: MIS screw placement and rod passage for fracture management   | G. MUNDIS, MD        |
| <b>SESSION 6: Lumbar Degenerative</b> MOD: J. DIMAR, MD                       |  |                      |
| 7:50  | What are the technique options, and what does the literature show for achieving lumbar lordosis in degenerative cases?   | R. HAID, MD          |
|   | <b>Debate:</b> Degenerative lumbar spondylosis with loss of lumbar lordosis at L2-3, L3-4 and L4-5   |                      |
| 8:05  | Case presentation  | T. ALBERT, MD        |
| 8:09  | LLIF   | J. URIBE, MD         |
| 8:17  | TLIF   | J. SMITH, MD         |
| <b>SESSION 7: Adult Degenerative Deformity—MIS Surgery</b> MOD: G. MUNDIS, MD |  |                      |
| 8:30  | Minimally invasive deformity surgery: Lessons learned and next generation challenges   | J. URIBE, MD         |
| 8:40  | Discussion   |                      |
| 8:44  | Tips & tricks: Techniques for minimizing nerve injury with L4-5 LIF  | H. BAE, MD           |
| 8:52  | Tips & tricks: The impact of spinal flexibility on deformity correction. How to measure preoperative flexibility and assess the need for osteotomies   | L. LENKE, MD         |
| 9:04  | OLIF vs ALIF at L5-S1: Advantages, risks, and complications avoidance  | R. LEHMAN, MD        |
| <b>SESSION 8: Complex Spinal Deformity</b> MOD: L. LENKE, MD                  |  |                      |
| 9:19  | Preop: How to risk stratify, select the best operation, prepare patients to minimize complications, and when to say "no" in adult deformity surgery  | S. BERVEN, MD        |
| 9:31  | Intraoperative technical execution for safe spinal deformity surgery: use of robotics and intraop tips for avoiding postop wound infections  | R. LEHMAN, MD        |
| 9:39  | Intraop technical tips on safe and optimal spinal realignment in the coronal, sagittal, and axial planes   | L. LENKE, MD         |
|   | TLIF vs. ALIF in long deformity cases: What is the optimal approach for optimizing sagittal realignment in adult deformity cases?  |                      |
| 9:51  | TLIF is best   | J. SMITH, MD         |
| 9:59  | ALIF is best   | J. DIMAR, MD         |
| 10:11   | How to avoid and treat the three main nemesis of ASD surgery in 2018: Persistent malalignment (rigid fractional L-S curve), proximal junctional kyphosis, and implant failure/pseudarthrosis | S. BERVEN, MD        |
| 10:30   | Adjourn  |                      |

## Saturday PM

|                                    |   |                    |
|------------------------------------|---|--------------------|
| <b>SESSION 9: Case Discussions</b> |   |                    |
| 4:15 PM                            | Non-CME Workshops   |                    |
| 5:15                               | Option 1: Case discussions: Cervical myelopathy<br>PANEL: R. HAID, MD; M. FEHLINGS, MD, PHD; J. RHEE, MD; A. VACCARO, MD, PHD | MOD: T. ALBERT, MD |
|                                    | Option 2: Case discussions: Lumbar degenerative scoliosis<br>PANEL: J. URIBE, MD; H. BAE, MD; J. DIMAR, MD                    | MOD: J. SMITH, MD  |
|                                    | Option 3: Case discussions: Complex spinal deformity<br>PANEL: S. BERVEN, MD; C. SHAFFREY, MD; R. LEHMAN, MD                  | MOD: L. LENKE, MD  |
| 6:15                               | Adjourn   |                    |

## SUNDAY, JANUARY 21

|   |  |                     |
|---|--|---------------------|
| 7:00 AM   | Welcome  |                     |
| <b>SESSION 10: Lumbar Degenerative Deformity</b> MOD: H. BAE, MD                      |  |                     |
| 7:05  | Anterior Column Realignment (ACR): What are the limits of sagittal plane correction from one disc space? How to perform safely               | G. MUNDIS, MD       |
| 7:20  | Technique video: How I perform a LLIF/ACR  | J. URIBE, MD        |
|   | <b>Debate:</b> The best option for correction of moderate fixed sagittal plane deformity with loss of lumbar lordosis                        |                     |
| 7:34  | MIS ACR  | G. MUNDIS, MD       |
| 7:42  | Open PCO or PSO  | L. LENKE, MD        |
| 7:54  | What are the major contraindications for MIS deformity surgery?  | R. LEHMAN, MD       |
| <b>SESSION 11: Techniques, Technology, and Complications</b> MOD: A. VACCARO, MD, PHD |  |                     |
| 8:09  | <b>Special lecture: Biologics in spine surgery: What is the evidence and case matching</b>   | H. BAE, MD          |
| 8:29  | The best tips I've learned in deformity surgery to avoid implant failure   | C. SHAFFREY, MD     |
| 8:37  | The best tips I've learned to reduce dysphagia in cervical spine surgery   | R. HAID, MD         |
|   | <b>Debate:</b> Navigation: A focus on surgical workflow  |                     |
| 8:49  | I just cannot implement this in my practice  | S. BERVEN, MD       |
| 8:57  | I can never get rid of it in my practice   | R. LEHMAN, MD       |
| 9:09  | Technique video: Intraoperative strategies for PJK prevention  | J. SMITH, MD        |
| 9:22  | Next generation interbody devices: What is marketing and what is real science?   | A. VACCARO, MD, PHD |
| 9:38  | Lumbar synovial cyst—decompress alone or fuse? How to decide? If decompression alone, what is the durability? How to follow up?              | T. ALBERT, MD       |
| 9:49  | In lumbar degenerative conditions, what does the literature show re: outcomes for pedicle screws and posterior lateral fusion vs. interbody? | H. BAE, MD          |
| 10:03   | SI joint fusion—indications, patient population, techniques and outcomes   | S. BERVEN, MD       |
| 10:15   | Adjourn  |                     |



# HOTEL AND REGISTRATION



The program and related activities will be held at the **Park Hyatt, Beaver Creek, CO.**

## FEATURES:

- Immediate slope-side access
- Located in the heart of Beaver Creek Village
- Deep in Snow Country—Best Ski Lodge

## TRANSPORTATION

### Dial-A-Ride Shuttles

All hotel locations are within walking distance of the Park Hyatt conference center. Dial-A-Ride will also provide shuttle transportation for the Base to Summit attendees and guests for the duration of their stay. Dial-A-Ride extended hours begin at 6:15am.

## HOTEL RESERVATIONS

Whether you're traveling alone or with guests, several excellent hotels are available. We recommend making your reservations ASAP, as rooms will fill rapidly. The discounted room rates are available until **December 23, 2017**; unless rooms sell out earlier.

| HOTEL   | ROOM RATE  | CALL TO BOOK   | GROUP CODE            |
|---|--|----------------|-----------------------|
| Beaver Creek Lodge  | \$365 per night<br><i>(plus \$25 resort fee / tax)</i> | 1-800-525-7280 | Spine Surgery Meeting |
| The Osprey Hotel  | \$395 per night<br><i>(plus \$25 resort fee / tax)</i> | 1-887-820-7669 | CM1BWT                |
| Park Hyatt  | \$499 per night<br><i>(plus taxes)</i>                 | 1-888-421-1442 | Spine Surgery Meeting |
| The Pines Lodge   | \$372 per night<br><i>(plus \$25 resort fee / tax)</i> | 1-887-820-7669 | CM1BWT                |
| Condos Available at: <ul style="list-style-type: none"> <li>■ St. James Place</li> <li>■ The Elkhorn Lodge</li> <li>■ Townsend Place</li> </ul> | Rates available upon request                           | 1-887-820-7669 | CM1BWT                |

Fast, Easy, and Secure Online Registration:

[www.RegOnline.com/BasetoSummit2018](http://www.RegOnline.com/BasetoSummit2018)

## REGISTRATION

*Register early as the limited space will fill very rapidly!*

|                                 |       |
|---------------------------------|-------|
| Surgeons                        | \$845 |
| Fellows/Residents/Allied Health | \$595 |
| Guests—Adult                    | \$195 |
| Guests—Children Ages 5–12       | \$95  |

- Registration fee includes daily buffet breakfast, après-ski refreshments, course reception, and course materials
- Guest registration fee includes daily buffet breakfast and course reception

## SKI LIFT TICKETS

Discounted lift tickets may be purchased until **December 20, 2017**, during online registration at [www.regonline.com/BasetoSummit2018](http://www.regonline.com/BasetoSummit2018). Upon arrival, you may pick up your ski tickets at the BroadWater ticket desk in the Park Hyatt's lobby. Further details will be provided in your registration confirmation letter. If questions, please contact **Danielle DeLong** at: [DDeLong@broad-water.com](mailto:DDeLong@broad-water.com).  
**Tel. (630) 681-1040 ext. 300**

## SKI TICKET DESK HOURS AT PARK HYATT

| Wednesday, Jan 17 | Thursday, Jan 18 | Friday, Jan 19 |
|-------------------|------------------|----------------|
| 7:30am–3:30pm     | 7:30am–6:15pm    | 7:30am–12:00pm |

## SKI LIFT TICKET RATES

|             | Adult (13–64) | Child (5–12) |
|-------------|---------------|--------------|
| 1 Day       | \$145         | \$100        |
| 2 of 3 Days | \$280         | \$194        |
| 3 of 5 Days | \$387         | \$267        |
| 4 of 6 Days | \$480         | \$332        |
| 5 of 8 Days | \$555         | \$385        |

For Senior (65+) ski ticket rates, please email [ddelong@broad-water.com](mailto:ddelong@broad-water.com) for more details.

**IF QUESTIONS:** Please call BroadWater at (630) 681-1040 or email [ddelong@broad-water.com](mailto:ddelong@broad-water.com).

- **NEW THIS YEAR: Private Ski Valet**—There will be a complimentary private ski valet at the Park Hyatt specifically serving the Base to Summit meeting attendees. This includes those who are staying at hotels other than the Park Hyatt, to store all ski equipment when not in use on the slopes. Further details will be provided once onsite.
- **Ski Equipment Rentals:** You may rent ski equipment at the special 20% discounted group rate through Gorsuch, the Park Hyatt onsite ski shop. Further details, current rates, and contact information will be provided upon registering.

## REFUNDS

A full refund will be provided, less a \$150 administrative fee, dependent upon written notice being received by **December 15, 2017** by email to [ddelong@broad-water.com](mailto:ddelong@broad-water.com) or fax (630) 682-5811. Refunds will not be made after this date. Substitutions are allowed at any time but must be submitted in writing.

If registrant(s) are unable to attend the meeting due to weather delays, strikes, Acts of God, civil disturbance, or other reasons not directly controlled by the meeting organizers, registration fees, airline, hotel, and other costs incurred by the registrant(s) will not be refunded.

## ATTENDANCE

The course chairmen reserve the right to refuse admission to anyone whose presence is considered to be incompatible with course objectives.

## COURSE CANCELLATION

In the unlikely event of insufficient enrollment, we reserve the right to cancel the course 21 days prior. Registrants will be notified by certified mail and registration fees will be refunded. Airline and other costs incurred by the registrant are the responsibility of the registrant and will not be refunded.



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# SPINE

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**JANUARY 18-21, 2018**

THE PARK HYATT | BEAVER CREEK, CO



*"The event was  
nothing short of spectacular"*