

# The 18<sup>th</sup> Annual State of Spine Surgery Think Tank

JW Marriott, Cabo | San Jose del Cabo, Mexico

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## Pre-Meeting: Investment and Innovation Summit

### Wednesday, June 28

12:30 pm	Registration Opens	Mila Foyer
<b>Session 1</b> Mods: Frank Phillips, MD & Gary Stevenson		Mila I-IV
1:30 pm	Welcome	Frank Phillips, MD
1:35	The financing and M&A environment for spine start-ups	Kyle Rose
1:55	<b>Panel Discussion:</b> What are investors looking for to finance spine start-ups? Panel: Todd Albert MD, Kaila Krum, Mike Mogul, Kyle Rose	
<b>Investment Presentations</b>		
2:25-2:35	<b>SAIL Fusion:</b> A more principled approach to SI fusion	David Jansen, CEO
2:36-2:40	Q&A	
2:41-2:51	<b>Theragen:</b> From information to impact – advancing spine fusion success through analytics	Chris McAuliffe, BS, MS President & CEO
2:52-2:56	Q&A	
2:57-3:07	<b>DiscGenics:</b> ROI on ROI: A new dimension of spine care	Flagg Flanagan, CEO & Chairman
3:08-3:12	Q&A	
<b>3:13</b>	<b>Refreshment Break</b>	Mila Foyer
<b>Session 2</b> Mods: Frank Phillips, MD & Gary Stevenson		Mila I-IV
<b>Investment Snapshots</b>		
3:33-3:38	<b>MiCare Path:</b> Taking the chaos out of care	Scott Laster, CEO
3:39-3:44	<b>Theradaptive:</b> Revolutionary new tool for spinal fusion	David Stewart, VP, Operations
<b>Investment Presentations</b>		
3:45-3:55	<b>MRGuidance B.V.:</b> BoneMRI, the first radiation-free 3D imaging of bone and soft tissue. Enabling and economizing computer assisted spine surgery workflows	Peter Seevinck, CSO

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3:56-4:00	Q&A	
4:01-4:11	<b>Spinal Stabilization Technologies:</b> The PerQdisc: Is nucleus replacement finally here to stay?	Mark Novonty, CEO
4:12-4:16	Q&A	
4:17-4:27	<b>Spinal Simplicity</b>	Tim McCown, COO
4:28-4:32	Q&A	
	<b>Investment <i>Snapshots</i></b>	
4:33-4:38	<b>Adcura Spine:</b> Combining AI and off-the-shelf patient specific implants	Eric Blossey, CEO
4:39-4:44	<b>DirectSync:</b> The future of spine fusion: Patient powered stimulating implants and diagnostics	Zygmunt Porada, MBA, CEO
4:45	<b>Panel Discussion:</b> What are strategics looking for to finance or acquire spine start-ups? Panel: Chris Barry, Dan Scavilla, Jon Serbousek, Carlton Weatherby	
5:20	Adjourn	
5:30-6:30	Reception	Kepe Roof Top Patio

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## Thursday, June 29

6:30	Registration Opens	Mila Foyer
7:00	Breakfast & Exhibit Viewing	Mila Foyer & Mila V-VI
<b>Session 1</b>		<b>Mila I-IV</b>
		<b>Mod: Frank Phillips, MD</b>
7:30	<b>Welcome</b>	<b>Frank Phillips, MD</b>
7:35	<b>Robin Young - State of Spine (Part 1)</b>	Robin Young
7:53	Discussion	
<b>Lateral Interbody Surgery</b>		
8:00	Approach choice - How I decide	Juan Uribe, MD
	Upsides, downsides, and real-world complications:	
8:06	- Prone lateral	Isaac Moss, MD
8:12	- Direct lateral	Robert Eastlack, MD
8:18	- OLIF	Richard Hynes, MD
8:24	- Show me the data - I can do it all posterior	Han Jo Kim, MD
8:30	Discussion	
<b>Case Panel: We See This Everyday, But We Can't Agree on What to Do</b>		
Panel: Elizabeth Lord, MD, Greg Mundis, MD, Kris Radcliff, MD, Richard Hynes, MD, Stephen Ryu, MD, Tom Cha, MD		
8:45	Case Presentation #1: 60 y/o female, grade 1 mobile, L4-5 spondy, with stenosis and leg pain only	Elizabeth Lord, MD
8:48	Panel discussion	
8:56	Case presentation #2: Young adult, focal disc herniation C6-7 with unilateral radiculopathy and 3/5 triceps strength	Tom Cha, MD
8:59	Panel discussion	
9:07	Case presentation #3: Motivated 40 y/o male, exhausted non op care, with relentless LBP with L4-5 disc desiccation and an annular fissure	Kris Radcliff, MD
9:10	Panel Discussion	
<b>Complex Cervical Disc Replacement</b>		<b>Mod: Alex Vaccaro, MD, PhD, MBA</b>
9:18	Hybrid and multi-level strategies	Hyun Bae, MD
9:24	Avoiding complications	Pierce Nunley, MD
9:30	Revision strategies for a failed single or multilevel arthroplasty	Todd Albert, MD
9:36	Discussion	

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## Endoscopy

9:45	It's just marketing and water on my shoes	Pierce Nunley, MD
9:51	Uni/bi portal: What the heck does that all mean?	Osama Kashlan, MD
9:57	How I do an endoscopic fusion	Mike Wang, MD
10:03	Financial considerations and keeping costs down	Phil Louie, MD
10:09	Discussion	

## 10:20 Refreshment Break & Exhibit Viewing

Mila Foyer & Mila V-VI

## Session 2

Mila I-IV

Mod: Todd Albert, MD

### Private Equity - The Good, The Bad, The Ugly

10:45	What is the typical private equity deal offered to surgeons today? How does it all work?	Roger Strode
10:55	Beware, hazards ahead! What are the pitfalls of private equity to avoid for early-career surgeons, and for established spine surgeons?	Peter Slate
11:05	Alternatives to private equity - supergroups / mergers ?	Alpesh Patel, MD
11:11	How does private equity turn bad? Seasoned surgeons and young surgeons - Who wins?	Roger Strode
11:17	Discussion	

### Symposium: *Cervical Arthroplasty Controversies* - Sponsored by Orthofix/SeaSpine

#### Part 1: Radiation Protection Measures to Reduce Cumulative Effects on OR Staff

11:28	Ionizing radiation exposure and the operating room: necessary or negligent?	Beau Standish, PhD, PEng
11:36	Radiation management decisions for spinal deformity correction: To navigate or not to navigate?	Han Jo Kim, MD
11:44	Discussion	

#### Part 2: Cervical Disc Replacement

11:51	Classification of bony changes post cervical disc replacement	Frank Phillips, MD
11:59	Long-term clinical results of cervical disc replacement; What does the data tell us?	Kris Radcliff, MD
12:07	Discussion	
12:14	Adjourn	

## 12:20 Cerapedics Workshop with Lunch:

Mila I-IV

An Evidence-Based Review of the Bone Graft Landscape  
Presenter: Jeff Marx, PhD

## Session 3

Mod: Neel Anand, MD

### Deformity Gone Wild? *Sagittal Plane Surgery Feels So Good*

1:10	As a result, I regularly re-operate on octogenarians for PJK	Greg Mundis, MD
1:16	I made my name on TL deformity, so now cervical deformity is ripe for me	Paul Park, MD
1:22	Global balance and ACDF for degenerative radiculopathy/myelopathy - Really??	Stephen Ryu, MD
1:28	Discussion	

## 1:36 Keynote: The Future of Spinal Deformity Surgery

David Polly, MD

1:51 Discussion

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## Symposium – Spinopelvic Fixation: The Long and Short of It. *Sponsored by SI-BONE*

1:56	Introduction	Frank Phillips, MD
1:59	Prevalence of pre-Op SIJ pain in ASD	Josh Heller, MD
2:04	Latest evolution in spinopelvic fixation	David Polly, MD
	1. Spinopelvic fixation complications: A review	
	2. Current spinopelvic fixation solutions	
	3. Latest evolution in spinopelvic fixation solutions	
2:19	Expanded indication for pelvic fixation in short constructs	Greg Mundis, MD
	Panel: Han Jo Kim, MD, Frank Phillips, MD, Juan Uribe, MD	
2:31	Debate: L5-S1 spondy case – pelvic fixation?	Greg Mundis, MD/Han Jo Kim, MD
2:41	Q&A with surgeon presenters	

## Regenerative and Restorative Medicine

**Mod: Mike Wang, MD**

2:45	Disc regeneration and LBP: Basic science/preliminary clinical data - Is it believable?	Hyun Bae, MD
2:51	LBP: My view of the world – what treatments actually work?	Doug Beall, MD
2:57	Discussion	

## Tech Updates

3:00	Technology update #1: DePuy: The future VUE of MIS surgery	Roger Härtl, MD
3:06	Technology update #2: Curiteva: Inspire® - 3D printed porous PEEK technology	Erik Erbe, PhD
3:12	Technology update #3: CoreLink: Advantages of CoreLink®'s 3D-printed, fully porous, nano surfaced SI fusion system: Siber® Ti	Kris Radcliff, MD
3:18	Discussion	

## Surgical Nuances

3:24	MIS TLIF is difficult to do well - Nuances for success	Paul Park, MD
3:30	Dealing with complications down a tube	Roger Härtl, MD
3:36	Cervical TDR - Patient selection and surgical pearls	Jeffrey Goldstein, MD
3:42	Barriers that must be overcome for LDRs to replace fusions	Richard Guyer, MD
3:48	Avoiding PJK - Tips and techniques	Greg Mundis, MD
3:54	Discussion	

## Lightning Round Abstracts

4:00	Paper #1: Pre-Operative radiographic measurements as predictors of loss of cervical lordosis following laminoplasty in patients with cervical spondylotic myelopathy	Camilo Molina, MD
4:02	Paper #2: Moving beyond implant costs: How do the true intraoperative costs compare for ACDF vs TDR?	Ahilan Sivaganesan, MD
4:04	Paper #3: T4-L1-Hip Axis: Redefined sagittal alignment targets in long-construct adult deformity surgery	Jeffrey Hills, MD
4:06	Paper #4: Monthly multidisciplinary adult spinal deformity conference is cost-effective: Cost-analysis utilizing lean methodology and time-driven activity-based costing	Philip Louie, MD
4:08	Paper #5: Why didn't you walk yesterday? Factors associated with slow mobilization after adult spinal deformity surgery	Francis Lovecchio, MD
4:10	Discussion	
4:15	Adjourn	

6:00-7:00 pm Welcome Reception

Amet Patio

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## Friday, June 30

6:45	Registration Opens	Mila Foyer
7:00	Workshop with Breakfast & Exhibit Viewing	Mila Foyer & Mila V-VI
	<b>NuVasive Workshop with Breakfast:</b> Adopting New Technologies in My Practice Frank Phillips, MD	<b>Mila V-VI</b>
<b>Session 4</b>		<b>Mila I-IV</b>
7:30	Welcome	Alex Vaccaro, MD, PhD, MBA
	<b>State of Spine Surgery Part 2</b>	<b>Mod: Alex Vaccaro, MD, PhD, MBA</b>
7:35	The business of spine surgery-where are we going next?	Alex Vaccaro, MD, PhD, MBA
7:47	Panel discussion Panel: Todd Albert, MD, Pierce Nunley, MD, Alpesh Patel, MD, Frank Phillips, MD	
<b>Session 5</b>		
	<b>Non-Spine Surgeons Performing Spine Surgery</b>	<b>Mod: David Okonkwo, MD</b>
8:00	<del>The cardiologist vs cardiac surgeon analogy - Is it a fair comparison?</del>	<del>Stephen Hochschuler, MD</del>
	<b>Debate: Pain Docs with No Formal Training Are Doing "Fusions"</b>	
8:06	It's outrageous and compromising patient care! Vs	Juan Uribe, MD
8:12	Chill; We can do it just as well	Doug Beall, MD
8:18	Discussion	
	<b>Enabling Technology</b>	
8:30	Robotics: Why haven't they taken the world by storm?	Alan Hilibrand, MD
8:36	Robotics: Where do they add value? How will they evolve?	Richard Hynes, MD
8:42	Augmented reality: Where are we?	Frank Phillips, MD
8:48	Augmented reality: Where could it go in the future?	Roger Härtl, MD
8:54	Discussion	
9:02	Tech update #4: NuVasive: Simplify your practice	Hyun Bae, MD
9:08	Tech update #5: Axis Spine: If all you have is a hammer, everything looks like a nail. Is the mallet part of the problem in ALIF surgery?	Richard Guyer, MD
9:14	Tech update #6: Spineology: Beyond traditional implants: Lordotic mesh – The tools of tomorrow	Kris Radcliff, MD
9:20	Tech update #7: Spinal Stabilization Technologies: Nucleus pulposus replacement: The preliminary experience from the PerQdisc trials	Michael Hess, MD
9:26	Discussion	

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9:32	Tech update #8: DeGen Medical: Patient specific ALIF for everyday cases	Peter Derman, MD
9:38	Tech update #9: DeGen Medical: 3D printed patient specific implants for large lumbrosacral defects	Camilo Molina, MD
9:44	Discussion	

## **Symposium – *Sponsored by Globus Medical* - Evolving with Enabling Technology: A Discussion on Training and Education**

9:50	Introduction	Richard Hynes, MD & Brandon Carlson, MD
9:53	Utilizing robotic navigation in today's O.R.	Richard Hynes, MD
10:00	Clinical case examples with ExcelsiusGPS®	Richard Hynes, MD
10:05	Learning curve and growing utilization with robotics	Brandon Carlson, MD
10:12	Clinical case examples with ExcelsiusGPS®	Brandon Carlson, MD
10:18	Best methods and practices to use when training on enabling technologies	Richard Hynes, MD & Brandon Carlson, MD
10:28	Q&A	Richard Hynes, MD & Brandon Carlson, MD

**10:35 Refreshment Break & Exhibit Viewing** **Mila Foyer & Mila V-VI**

**Session 7** **Mod: Richard Guyer, MD**

### **AI - Machine Learning and Predictive Analytics**

11:00	Translating pre-op planning into what we accomplish in the OR	Robert Eastlack, MD
11:06	Predictive analytics driving decisions. Are we there?	Sig Berven, MD
11:12	Personalized implants: Do we need them?	Kris Radcliff, MD
11:18	Spine surgeons going at risk: Predictive analytics and population health	Peter Slate
11:24	Discussion	

### **Mini-symposium: *Sponsored by Mainstay Medical* - Restorative Neurostimulation: A Novel Technology for Treating Non-surgical Mechanical CLBP**

11:35	Introduction	
11:36	Identifying the underlying problem of non-surgical mechanical CLBP	Robert Eastlack, MD
11:43	4-Year clinical data from a randomized, sham controlled, pivotal trial with supporting real world evidence	Frank Phillips, MD
11:50	Case examples and real-world experiences with restorative neurostimulation	Jeff Lehmen, MD
11:57	Discussion	

### **Tech Updates**

12:00	Tech update #10: Kuros Biosciences: The advanced surface topography of MagnetOs bone graft and my experience in clinical practice	<b>Mod: Ali Araghi, DO</b> Tom Cha, MD
12:06	Tech update #11: ISTO Biologics: Novel solutions for complex spinal procedures	Joshua Barber, MD
12:12	Tech update #12: Spinal Elements: ASC centric fusion technology solutions	Ernest Braxton, MD, MBA
12:18	Discussion	

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## Social Media Panel

Panel: Peter Derman, MD, David Okonkwo, MD, Stephen Ryu, MD, Juan Uribe, MD

Mod: Harvinder Sandhu, MD

12:24 Discussion: My kids waste their time on social media, and there's definitely no need for my practice to waste it's time on it.

## 12:45 Adjourn - Open Afternoon for Activities

6:30 VIP Dinner (*invitation only*)

## Saturday, July 1

6:45 Registration Opens

Mila Foyer

7:00 Breakfast & Exhibit Viewing

Mila Foyer & Mila V-VI

## Session 6

Mila I-IV

7:30 Welcome

Todd Albert, MD

### Case Panel: We See This Everyday, But We Can't Agree on What to Do (Part 2)

Mod: Todd Albert, MD

Panel: Neel Anand, MD, Isaac Moss, MD, Comron Saifi, MD, Chadi Tannoury, MD

7:33 Case presentation: MIS TLIF gone bad

Isaac Moss, MD

7:36 Panel discussion

7:46 Case presentation: Cervical TDR gone bad

Matt Colman, MD

7:49 Panel discussion

7:59 Case presentation: Met alignment goals and still have PJF with construct failure

David Polly, MD

8:02 Panel discussion

8:12 Case presentation: Post fusion severe radiculopathy when all look OK

Tom Cha, MD

8:15 Panel discussion

### Debate: We Need to Make a Big Deal about Sagittal Parameters on "Chip Shot" Short Fusion Degenerative Cases

Mod: Matthew Colman, MD

8:24 - That's baloney. Just address the neural compression

Blake Staub, MD

vs

8:30 - Of course it's NOT baloney. I'll not send my family members to you for surgery

Sig Berven, MD

8:36 Discussion

### Debate: 30-degree Degenerative Lumbar Scoliosis with Mild Sagittal Imbalance

8:42 - MIS techniques should be the standard of care for most cases

Neel Anand, MD

vs

8:48 - MIS is great for marketing, but traditional techniques remain the most effective for most cases

Han Jo Kim, MD

8:54 Discussion



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9:00 **Lightning Round: C-Suite Execs Speak: How We See Spine Care in the Next Decade**  
Mod: Frank Phillips, MD

Panel: Laura Francis – SI-BONE  
Kevin Hykes - Augmedics  
Keith Valentine - Orthofix/SeaSpine  
Carlton Weatherby - Medtronic  
Robin Young

## Digital Health

9:30 Sounds so cool, but does it work in spine? Chevy Iyer, MD

9:36 Discussion

## Tech Updates

9:41 Tech Update #13: Barricaid: Retiring clinical and reimbursement risk for new technology Ali Araghi, DO

9:47 Tech Update #14: MiCare Path: Virtual MSK Care: Myth or meaningful service line Scott Laster

9:53 Tech Update #15: Innovasis: Bioactive implants and the importance of data

9:59 Discussion

10:04 **Refreshment Break & Exhibit Viewing** Mila Foyer & Mila V-VI

**Session 7** Mila I-IV

## What's New In...

Mod: Alan Hilibrand, MD

10:24 Trauma David Okonkwo, MD

10:30 Cervical deformity Francis Lovecchio, MD

10:36 Any meaningful advances in fusion biologics since BMP? Todd Allen, MD

10:44 Are you sick of metal with no idea if fused? Surface architected PEEK checks all the boxes Brandon Carlson, MD

10:50 Discussion

## ASCs: Challenges and Controversies

11:00 Surgeon owners: Cost control, vendor partnerships, & COI:  
Can we do better than hospitals? Matthew Colman, MD

11:06 Anesthesia for the ASC? Ernest Braxton, MD

11:12 Future of ASCs - what I cannot/will not do there now, but will in 5 yrs - How and why? Ali Araghi, DO

11:18 Discussion

11:25 **Adjourn**

11:35 **Young (and Young at Heart) Spine Surgeons Symposium with Lunch** Mila I-IV  
Mod: Tom Cha, MD

11:40 Finding happiness in 15-minutes Stephen Ryu, MD

11:55 Discussion

12:05 The executive MBA in 15-minutes Alpesh Patel, MD

12:20 Discussion

12:30 How to look after your hard-earned money Harvinder Sandhu, MD

12:45 Discussion

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12:55 **Life-work Balance Panel**

Panel: Brandon Carlson, MD, Lesley Mundis, Amie Nunley, MD, Denise Walt, MD

**Mod: Harvinder Sandhu, MD**

**Young Surgeon' Views: What Excites Me About the Future of Spine Surgery**

1:20 The future of MIS

Greg Lopez, MD

1:24 The future of enabling technologies

Camilo Molina, MD

1:28 The future of spinal deformity

Francis Lovecchio, MD

1:32 The future of academics in spine

Arya Varthi, MD

1:36 Discussion

1:55 **Adjourn**