

Orthopedics

This Week

Spinal Elements: The Biggest Spine Company You Didn't Know

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Carlsbad, California-based company Spinal Elements has been a steady, indeed, relentless spine surgery innovator since its inception in 2003. With very little fanfare, Spinal Elements has quietly grown into one of the largest and most routinely innovative spinal implant company in the United States.

Indeed, you probably know its product brands better than you know the company—Mosaic, Lucent XP, Magnum+, Ventan, Sapphire X, Luna XD, Mercury MIS, Ti-Bond, Overwatch, OmegaLIF and Karma.

How did the startup rise from a family and friends funded labor of love into a \$100 million spinal implant company which is advancing fundamental shifts in modern spine surgery? *OTW* sat down with Spinal Elements President and CEO Jason Blain and Chief Marketing Officer Rick Simmons to find out.

Company Background

Spinal Elements has a unique origin story, in that the company had no venture capital backing—ever. It was initially funded solely through friends and family. It wasn't until 2017, fourteen years after it was founded, that Blain and his team agreed to, in effect, sell and merge with Amendia via a private equity funded company—Kohlberg & Company. For, as we said, 14 years, Spinal Elements employed, using the modern lingo, an “organic” growth model—



Karma MIS system / Courtesy of Spinal Elements

which, of course, gave this young company a hard-earned strength, scale, endurance and culture.

Spinal Elements' Jason Blain has around 30 years of experience in orthopedics. Before co-founding the company in 2003, Blain's ortho background included product development, manufacturing, and regulatory work at leading med tech companies like NuVasive, Inc., Alphatec, Smith & Nephew plc. He has stewarded the company's growth from the ground up and believes that this nontraditional path has allowed innovation to thrive at Spinal Elements.

Rick Simmons, who came to the company as part of a technology match with Benvenue Medical, not only runs mar-

keting but also leads product development teams at Spinal Elements.

Simmons was also a member of Spinal Element's original advisory board. He brought to the then young company more than 30 years of marketing, sales and business leadership.

Simmons started his medical device career in surgical sports medicine and later moved into spine. He was NuVasive Vice President of Sales & Marketing from 2000-2003 and later worked with early stage marketing development companies designing spinal procedural solutions, such as Trans1, where he was VP & General Manager from 2003-2010. Simmons acted as corporate consultant to Johnson & Johnson



Jason Blain and Rick Simmons / Courtesy of Spinal Elements

and DePuy Synthes, before taking on the role of Vice President of Sales and Marketing with Benvenue Medical from 2014-2020.

Benvenue's assets were acquired by Spinal Elements in 2020. Simmons came to Spinal Elements around two years ago.

Spinal Elements Product Philosophy: Easier to Use, Better Outcomes, Better Work Flow

Or, as the company itself promises on its website, "Overcoming complexity through elegant simplicity."

According to Blain and Simmons, Spinal Element's product portfolio was curated to not only improve patient outcomes by tackling many of spine surgery's unmet needs, but also by designing to fit into and complement the surgical team work flow.

The company was, for example, among the first to market PEEK interbody devices. The first to secure interbody clearance when the Food and Drug Administration down-classified that device. The first to bring to market a standalone cervical implant. And, now (check this out at NASS in a couple weeks) the first to present an MIS, no

screw, no rod, posterior cortical fixation system.

Today, Spinal Elements is pushing toward \$100 million in revenue.

Of course, Spinal Elements has also brought to market the full complement of spinal instrumentation: thoracolumbar interbody, discectomy, thoracolumbar fixation, cervical, biologics, and access systems, among other products. Additionally, the company offers MIS procedural solutions, a brand platform named MIS Ultra.

MIS Ultra is an integrated suite of instrumentation for advanced anterior cervical discectomy and fusion (ACDF) cases, MIS transforaminal lumbar interbody fusion (TLIF) solutions, lateral lumbar interbody fusion (LLIF) solutions, and a Kambin's triangle access and interbody solution—brand named OmegaLIF®.

Surgeon First

"Surgeon First" is the Spinal Elements mantra. Which, in practice, means easier to use instrumentation, better workflow, and overall consideration of the surgeon's needs and guidance when it comes to designing and delivering procedural solutions. And, easier

to use, potentially, translates into lower risk of unintended consequences and ultimately better patient outcomes. Rick Simmons explained to OTW how the Spinal Elements team bakes into its instrumentation the five essential steps of a surgeon's workflow:

- gaining safe access,
- optimizing disc preparation,
- using appropriate expandable interbody spacers,
- use of appropriate biologics, and
- stabilizing the posterior elements.

Seeing instrumentation through the eyes of the surgeon sets up everything that follows—design, manufacturing, marketing, and support.

In addition, Simmons explained, Spinal Elements has worked hard to develop technology that is much more anatomically friendly, creating products that address efficient disc preparation, a host of expandable technologies that go in small and become bigger, and a movement away from dependence on traditional metal pedicle screws and toward organic, tissue sparing spine fixation.

Peer-to-Peer Education

Taking a page out of the past giants in spine surgery—AO Foundation and Sofamor Danek—Spinal Elements has invested significantly into a surgeon peer training and education program. For its MIS Ultra instrumentation, Spinal Elements offers year-round training labs at both corporate and remote locations across the United States which provide both lecture and hands-on clinical training.

**No Screws, No Rods, Better Fusion...
 It's Karma**

What's in the pipeline for Spinal Elements in the upcoming year? Blain told us that roughly nine or so relatively new spine technologies are in the works including, notably, the new Karma® MIS system—a no screw, no rod, better fusion system.

That's right, Karma is a posterior fixation system that requires no screws nor rods and is also a lower density implant than the traditional pedicle screw system. As a true MIS system, the instrumentation is delivered via a single portal incision. Finally, the system is metal free and, again, with the surgeon's workflow in mind, designed to streamline and minimize tissue trauma and OR time. Karma, said Simmons, provides the same level of secure fixation that the traditional, open pedicle screw system does, including reduced stress shielding and more physiologic loading of the anterior column reconstruction.

"We're kind of moving away from the existing paradigm of stabilization by subtraction," said Simmons. "The currency of the business is the metal pedicle screw. Looks a lot like Home Depot hardware to the patient. When they first

see those things in an X-ray, it can be intimidating."

Spinal Elements discovered and then developed a very novel design for spine fusion instrumentation that keeps the patient's anatomy intact and, as Simmons described to OTW, "delivers the same kind of stabilization you get with a metal construct by fixating to the strongest portion of the vertebra."

"We're just trying to preserve the native anatomy for the patient and get the same outcome," explained Simmons. "So, that really kind of sets us apart as not just thinking outside the box but also operationalizing it if you will—making it feasible. That puts the company in a very different light I think with most surgeons."

Finally, Spinal Elements is taking the additive manufacturing revolution in some interesting, new directions.

According to Blain, "We re-envisioned an interbody device as really a graft containment device with structural support...so rather than a block of metal or plastic, it's really a vessel for biologics," explained Blain.

"Because fusion is a biologic process, we want to maximize the amount and

availability of biologic materials. And our solution in 3D printing does just that by kind of flipping the way we think about those interbody devices and what they can do."

"So, we're excited to roll out those solutions and that will be a platform for technologies and launches for years to come for us, too. We're excited to get that in the hands of a broader group of surgeons."

Indeed, Spinal Elements is not only the largest spinal implant company you may never have heard of, but it is also moving spine surgery into some very interesting directions. Not only MIS, which every company is touting, but challenging some basic assumptions about how much hardware is actually required for spine fusion surgery.

Finally, Spinal Elements is showing what a true partnership between company and surgeon can look like in terms of instrumentation design and delivery.

Blain and Simmons will be hanging out at Booth #2011 at NASS and we urge all of our readers to check these guys out. Tell them Robin sent you and be sure to use the magic phrase "surgeons first." ♦