

allianz

Volume 5 • 2019 | The Magazine for Partners of B. Braun's OEM Division

ASK THE EXPERT

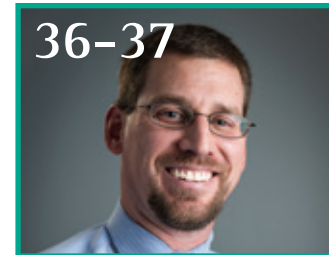
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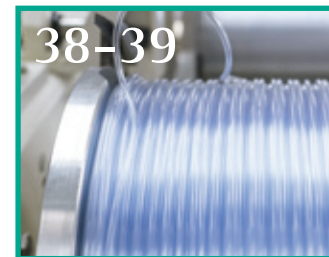
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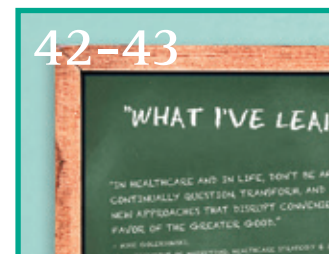
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Volume 5 | 2019

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CHECK OUT OUR **SPOT THE DIFFERENCE** ON PAGE 45!



EDITOR'S NOTE

In Philadelphia, there's a store – Hats in the Belfry – that's renowned for quality hats and first-rate service. My own belfry is without much hair these days, and that makes me think the time has come for a visit to this shop, maybe to buy a nice fedora.

Needless to say, fewer of us favor hats than once did. Back in the day in OEM sales, we wore a lot of them, figuratively and literally. When it comes to the roles a salesperson must fill, you've probably noticed that things have changed.

As we have developed in a collaborative industry, we've increasingly realized the need for disciplines to speak directly with each other – Regulatory to Regulatory, Quality to Quality, Operations to Operations. With this change, salespeople need not be an expert in every discipline. Nor should they. Today they've evolved to be more like project/account managers, making sure our customers acquire vital information directly from the experienced professionals who live it every day. It's another

expression of B. Braun's dedicated commitment to "Sharing Expertise."

To make this happen, we've continued to provide each salesperson with colleagues whose main function is daily customer support. Upgrading our Associate Account Managers is a prime example; it has improved customer service and information transfer to all our OEM Division customers. The positive feedback we receive about services provided from the AAMs, our Sales Service Representatives and our Project Management team resonates throughout our organization.

We believe this new approach has made the frontline salespeople more responsive and effective than ever before. (After all, no matter how many hats you wear, you only have one head.) We hope you're experiencing the organizational improvements we've made. And we welcome every idea that may help us better serve you and your customers. As partners in your success, we're pleased to acknowledge it with – why not? – a tip of the hat from B. Braun.

As partners in your success, we're pleased to acknowledge it with – why not? – a tip of the hat from B. Braun.



B. BRAUN'S NEW CEO

Anna Maria Braun

Named Chair, Management Board of B. Braun Melsungen AG

One of the oldest and most successful private companies in the world is now in the very capable hands of the next generation of family leadership.

Anna Maria Braun recently assumed the Chairmanship of the Management Board of B. Braun Melsungen AG. Her accession to the board's top position epitomizes both continuity and growth within our parent company, one of the medical device industry's longest established firms.

She succeeds Prof. Dr. Heinz-Walter Große, who retired after serving 14 years on the Management Board and eight as its Chairman.

From its 1839 founding as a pharmacy in the central German town of Melsungen, the firm has remained a family-owned business. Like so many of her forebears, Anna Maria Braun has risen through a succession of increasingly responsible jobs in her preparation for this essential leadership duty.

She held various positions in B. Braun operations in Malaysia and the U.S. before assuming, in 2013, responsibility for the Malaysian subsidiary, B. Braun Medical Industries Sdn. Bhd. A commercial lawyer in Düsseldorf, Germany, before joining the company in 2009, she has law degrees from Baden-Wuerttemberg, Germany, and New York State, and holds a Master of Laws degree from Georgetown University, Washington, D.C.

In 2016, she joined the Management Board and since then has been responsible for B. Braun operations in the Asia Pacific region. In addition to maintaining this responsibility, she'll take charge of legal matters and human resources and will become the company's Director for Labor Relations.

With her appointment to the Chair of the Management Board, she continues a tradition of family service within B. Braun.



Anna Maria Braun



ASK THE EXPERT:

MIKE GOLEBIOWSKI



As a B. Braun Vice President, focused on technology, Mike Golebiowski has a ringside seat for an exciting, powerful medical trend – data-driven innovation that's making medical devices better and safer at a pace that one could only dream of even five years ago.

Golebiowski explains how access to data and insights generated from it are shaping a world of faster improvements in medical devices, including those made for contract manufacturing customers.



Mike Golebiowski | Vice President of Marketing

Q: How is data affecting device manufacturers' ability right now to make better products and better serve their customers?

Data-driven innovation affects many parts of the process – corporate strategy, the development of ecosystems for healthcare providers, not just making better products. Analytics from all this information allows us to see what's going well and what isn't. Anytime I hear people complaining, I think of a need. We listen to that, measure it and start asking why.

Q: It sounds as if there's been a real change, not only in the data that's available to you but also in making sense of all this information.

Government requirements for EMR (electronic medical records) have made lots of data available. Devices are also recording data at the point of care and sharing it. You can look at all this information and ask, "Based on the data, what can help us improve outcomes?" It might have to do with clinical practice or infection rates. It might be about improving the product or enhancing the relationships we have with customers. You also have better tools for managing all this data – a good example is through partnerships from IBM Watson and Verily. It leads to better answers, faster. All this is bringing a new age of visibility.

Q: What's at stake in making the most of these new sources of important information?

Good data clarifies what problems might be involved in processes and methods. With insights from data, you identify ways of doing things that can cost a facility less money and improve patient outcomes.

Q: I would think the new situation allows you to find problems and produce improvements almost in real time.

That's right. At one time, you had to step outside active processes and set up tests and studies to find out what you needed to know for improvement. Now, nearly every process can be studied. Ecosystems are producing data that can be analyzed right away and provide insights for improvements.

Q: How is this ability to acquire more useful data and exploit it quickly contributing to improvement in the contract manufacturing space?

You'll have greater insights about product performance sooner, as you're able to identify issues very quickly and even spot problems through the data rather than going on site and investigating. To be more nimble and responsive this way, to develop new insights is making a difference in performance for our contract customers.

PLANT PROFILE: INTEGRATING STERINOVA

B. Braun is pleased to welcome the newest member of our global family, Sterinova of Saint-Hyacinthe, Quebec.

This expert maker of ready-to-use injectable products – including prefilled syringes – aligns us effectively with worldwide pharmaceutical and clinical trends favoring off-the-shelf solutions. The Canadian manufacturing team also brings capabilities that complement B. Braun's established systems and offerings, including those for contract customers.

"For the last 10 years, the OEM Division has made a concerted effort to enhance our capabilities to serve pharma and biotech companies," says Tom Black, B. Braun Vice President of OEM and International Marketing. "The acquisition of Sterinova is evidence of this – and we're looking closely at integrating their technologies into our contract manufacturing work."





As Jean-Philippe Gentès, Sterinova's President and CEO, sees it, joining B. Braun has helped his company achieve important synergies. "Becoming part of a family-owned corporation, existing for more than 180 years and operating today around the world, will have a major positive impact on Sterinova," he said. "B. Braun can help us evolve in manufacturing as we share expertise."

"The relationship has already opened doors to a lot of markets. It's an exciting time in the life of our business," added Jean-Philippe.

Highlighting Sterinova's established strengths, Jean-Philippe explained that the firm was designed to operate to international pharma standards, with approval for sterile manufacturing of drugs and biological products. Inspected by Health Canada and the FDA, Sterinova can manufacture drugs for the U.S., Canada and all countries with mutual recognition agreements.

"The relationship has already opened doors to a lot of markets. It's an exciting time in the life of our business," added Jean-Philippe.

Prefilled syringes are prepared at the Quebec plant, with batch sizes ranging from 30 liters to 200 liters. It's possible to increase batch size to 1,000 liters. Current methods employ terminal sterilization; soon Sterinova will also manufacture prefilled syringes in an aseptic process. The syringe line is highly automated, with a fully automated visual inspection system.

Sterinova also manufactures IV bags from 50 to 250 mL on a semi-automatic line. The bags are terminally sterilized.

"There is definitely a steady switch to ready-to-use presentation for pharmaceutical drugs," Jean-Philippe said, "and this is exactly where our expertise lies. Safety, accuracy, improved workflow and manpower management are some of the advantages driving the switch. Since our inception, we've developed ready-to-use goods, and our R&D strategy and expertise are aligned that way."

Tom lauded Sterinova's automated equipment. "Through them we add capacity and capabilities as our contract manufacturing demands expand," he said. "Specifically, we expect to offer Sterinova's expertise to our OEM Division accounts and give them the opportunity to put their own drugs in glass, prefilled, private-labeled syringes. It's in concert with our plans to broaden our portfolio of products and be a premier contract manufacturing resource."

SOLUTIONS FOR LIFE

Billion-Dollar Investment to Support "Solutions for Life" IV Fluid Supply Initiative

At a stakeholder meeting in Washington, D.C., in May, B. Braun announced a \$1 billion investment in IV therapy manufacturing, an essential part of the company's Solutions for Life campaign. Part of that major new expenditure will be the creation of a new IV fluid manufacturing plant in Daytona Beach, Fla.

Broadly, Solutions for Life represents a commitment to expand capacity, helping ensure the supply of life-saving fluids for hospitals, outpatient settings and other care institutions.

Shortages in IV fluids have had a significant impact on the U.S. healthcare system. At the Solutions for Life kickoff event, B. Braun invited representatives from organizations across the healthcare supply chain to discuss the issue. The panel, moderated by Chairman and CEO Caroll H. Neubauer, included leading providers and suppliers. U.S. Senator Pat Toomey (R-PA) opened the event with remarks on the need for a consistent supply of critical IV solutions, and U.S. Senator Rick Scott (R-FL), addressing the meeting via video, thanked B. Braun for its decision to locate the new plant in Florida.

IV fluids are a basic component in patient care, necessary to hydrate patients, administer drugs and replace lost blood volume. Destructive weather events and severe influenza seasons in recent years have

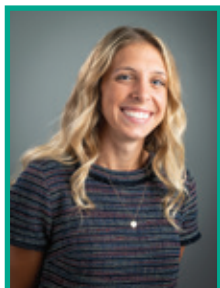
contributed to major IV fluid shortages in the U.S. market. Shortages forced healthcare professionals and facilities to delay patient treatments or use alternate techniques.

Several years ago, B. Braun prioritized and began investments to support continuing long-term supply capacity. Discussions with hospitals, policymakers, supply chain leaders and healthcare providers after Hurricane Maria in 2017 cemented the company's determination to expedite plans and take the lead in creating sustainable and reliable solutions to help meet future IV fluid supply needs.

In addition to developing the new plant, plans include modernizing the existing manufacturing facility in Irvine, Calif., and expanding the IV therapy device manufacturing facility in Allentown, Pa. Distribution locations will be enhanced, and because B. Braun has obtained FDA approval of IV fluids from European facilities, international backup of the U.S. supply is enabled.

These changes can also influence B. Braun's ability to serve the outsourcing market. "Added capacity and capabilities open the potential for solutions to be available on a contract manufacturing basis once the new facilities are fully operational," said Tom Black, Vice President/OEM and International Marketing. "We have seen requests for solutions increase in the past 10 years. We're excited about the possibility of broadening our offerings to satisfy those requests."

MEET THE TEAM



Maris Stern | Marketing Associate, OEM & International Divisions

If you've visited with B. Braun's OEM Division at a trade show recently, you've seen the handiwork of Maris Stern. As Marketing Associate, OEM & International Divisions, she's responsible for making sure all the details for each exhibition are handled flawlessly, from setup to tear down and everything in between.

That's on top of coordinating all the OEM Division's marketing activities – advertising, brochures, website, emails and more.

A former B. Braun intern, she joined the OEM Division full-time in 2019 after graduating from Temple University with a Bachelor of Business Administration degree, focusing on marketing and human resources. She was a four-year starter on the Owls field hockey team and captain her senior year. She says the teamwork skills she learned on the hockey field have translated nicely to the office.

"Being a captain, I had to deal with different teammates. Some were outgoing; some were quiet. You have to understand how different people communicate," she says. "It gave me a lot of confidence to step up and share what I know and believe in."



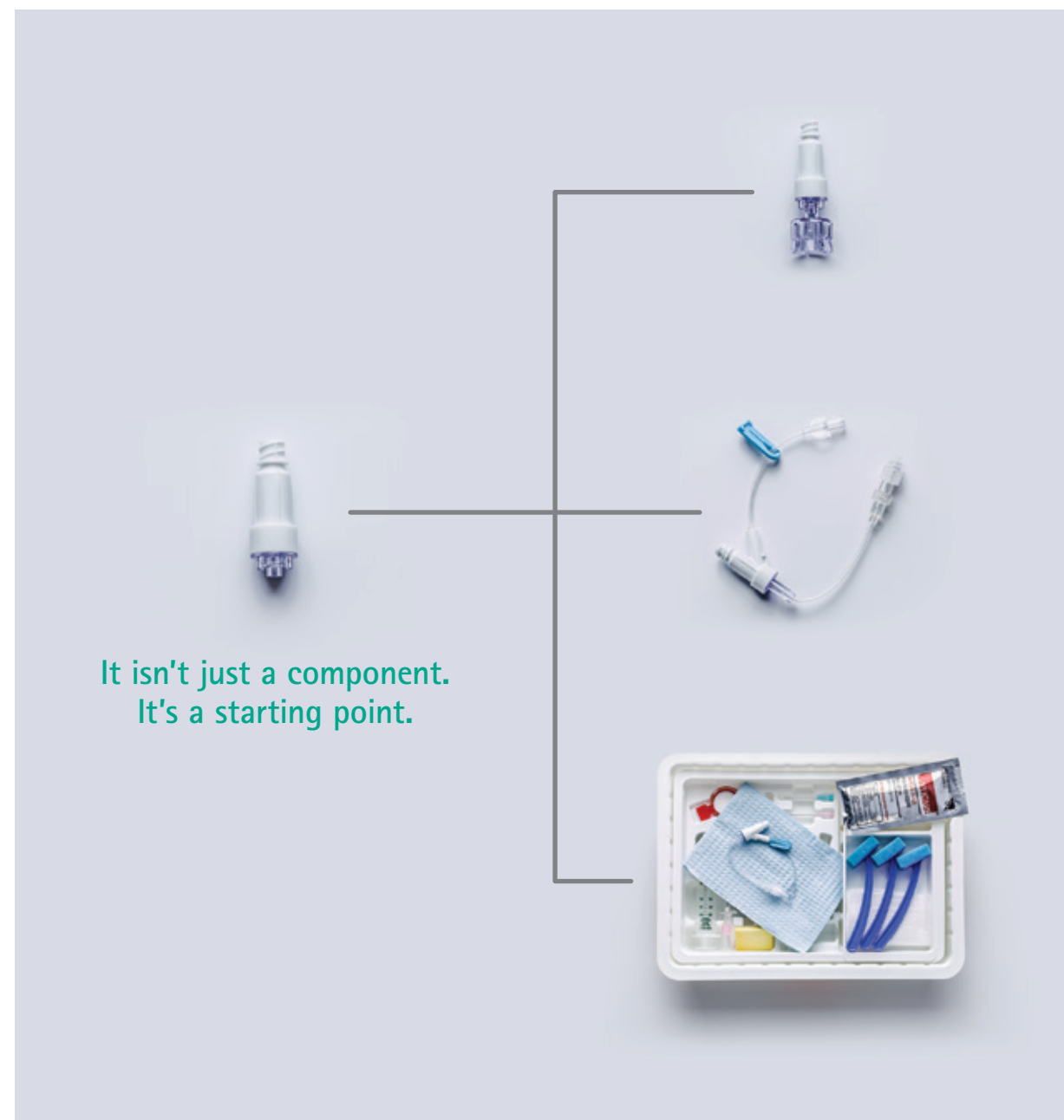
Christine Edsoren | Sales Service Associate

Experience on the customer's side of the desk teaches a lot, according to Christine Edsoren, Sales Service Associate in the Southeast Territory. Her résumé includes significant background in purchasing – and she knows how much B. Braun customers rely on dedicated, effective service.

"I was a planner, so I was purchasing materials as a customer. I've been there when materials are needed and when things change," she said. "I can identify with the customer and can provide them with the information and service that I would have expected."

The challenge is never greater, Christine believes, than when the team tackles a brand-new item for a customer. "Our projects can be fairly complex. There are lots of questions to ask, and we have to find the best people to help."

The results of all this demanding work are gratifying. When the team delivers for them, she said, "Our customers are grateful and gracious."



Start with B. Braun OEM's deep product catalog. Add in some serious design and engineering chops. It means we can create a device, set or kit tailored to your exact specifications. Once we've finished designing, we'll handle everything from project management and manufacturing to packaging, sterilization and regulatory approval. With endless products and a full suite of capabilities, we're the ideal choice to speed your project to market. B. Braun OEM. The only outsourcing partner you'll ever need.

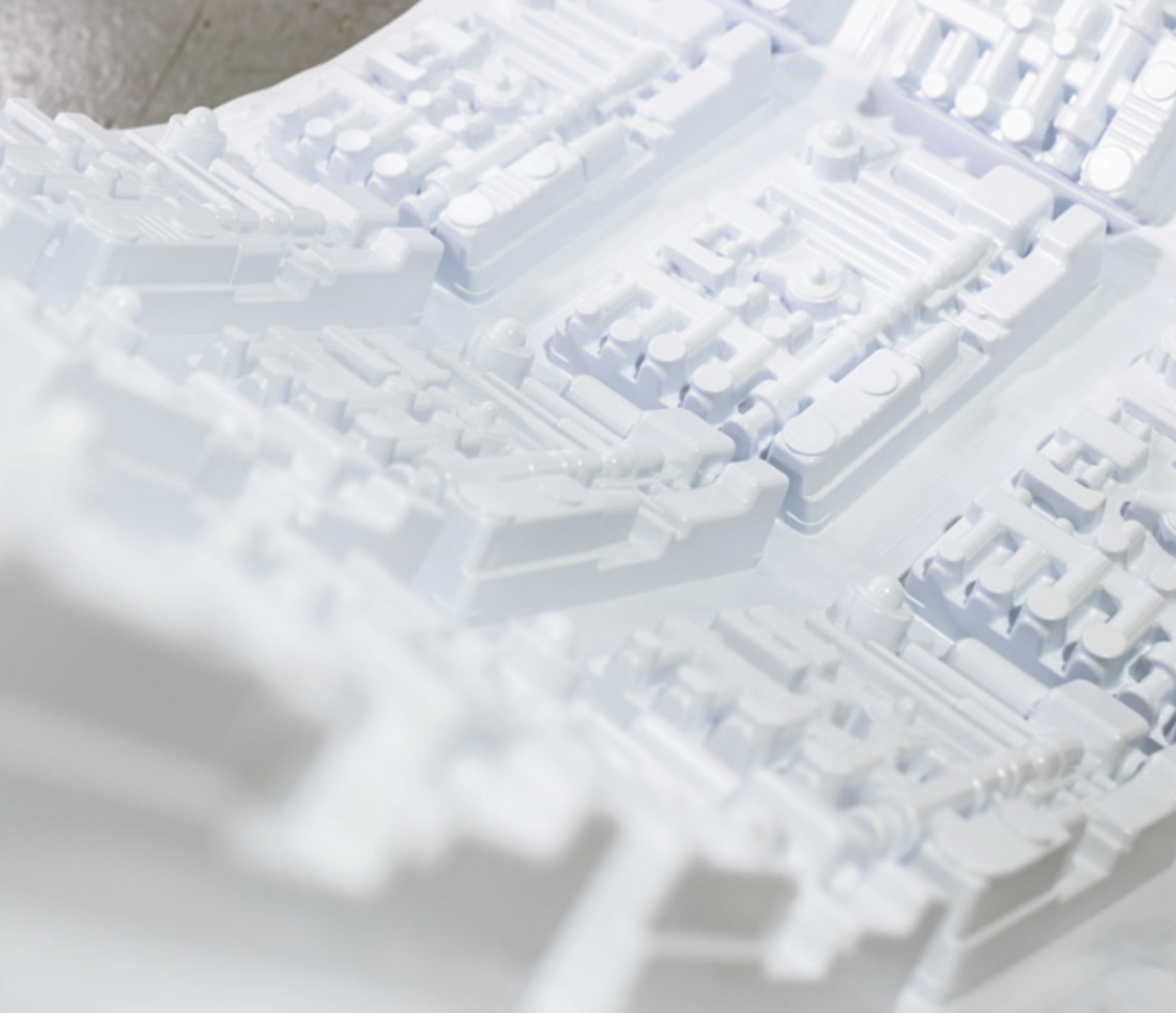
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KIT PACKING: THE SUM OF ITS PARTS

At first glance, creating the custom medical kits that put many B. Braun components into patient service may look simple. In truth, it's a process that calls on many levels of the company's expertise. It often begins with trusted B. Braun components, but also embraces third-party sourcing, superb engineering and assembly capabilities that are both highly skilled and scalable.



There's far more to this than picking and packaging components. "We've learned to think outside the tray," said Adrienne Brusko, Business Unit Director for Pain Control, Admixture and Introcan. In kit production, the first focus is on meeting a specific clinical requirement. But Adrienne's team also optimizes its processes for speed, size reduction, environmental impact and more.

To make it all happen, they scrutinize every element of kit preparation.

Consider the print materials that kits include. They might seem inconsequential, but process review showed otherwise. "We've gone to digital printing, which allows us to move much faster versus traditional four-color or litho work," Adrienne said. "Digital can save us days in delivery."

In any situation depending on disposable goods, what happens during production is a concern. The kit-packing process must be considered for its impact on the environment and the waste stream. "Our manufacturing facility has been landfill-free for years," Adrienne said.

Another fact about kit design and manufacture: Size matters. End-users for these products have always included hospitals; today many kits go to smaller medical centers with less storage space. All



Adrienne Brusko | Business Unit Director for Pain Control, Admixture and Introcan

customers benefit from space savings the kit team achieves. Blister packs and other compact packaging formats facilitate handling the kits at every stage, and the team's ability to customize package design is a particular asset.

Cost control for OEM clients and end-users, a matter of great importance, depends on getting details right. Performance for the patient still matters more. Adrienne's team has benefited greatly from the capabilities of the company behind it. A huge array of components for kits is available to them, but they also call on deep, varied experience and engineering expertise in kit preparation.

Often the development of custom kits starts in B. Braun's highly proficient Specialty Product Center, which provides designs with scalability from the start. "The manufacturing options of our flexible packaging line also make it easy to add capacity," Adrienne said. "And managing a flexible workforce also helps. So we try out great ideas in SPC and ramp them up from there."

"We've learned to think outside the tray."

— Adrienne Brusko, Business Unit Director for Pain Control, Admixture and Introcan



PRODUCT SPOTLIGHT:

Y OPT FOR ANYTHING ELSE?

The B. Braun hemostatic Y-connector has a solid advantage: It is one connector that enables multiple access points. The multipurpose design has led to new procedural applications and innovations.

"It's a device that's stood the test of time," says Dave Mittl, Corporate Director of B. Braun Interventional Systems, speaking of the single hemostatic Y-connector. A part of the B. Braun lineup since the 1990s, this product's exceptional quality, stability and versatility mean that new opportunities continue to emerge for it, including contract manufacturing applications.

The connector incorporates a precision closure gasket, automatic stop mechanism and other proven features.

Deploying one reliable connector that enables multiple points of access can be an important advantage, and new possibilities proceed from there. "On the OEM Division side, a lot of new opportunities have emerged," Dave says. "We've probably seen more than 25." As contract purchasers (and their end-user customers) envision these possibilities, B. Braun's ability to share expertise is an essential element in bringing their ideas to completion.

This connector's whole product family – including single and double Y-connectors with standard- and low-profile caps, plus connectors with three-way stopcocks and other stopcock extensions – empowers users to devise new solutions. "People have worked it into their innovations," Dave says. "From a process flow standpoint, this can be an excellent part of many delivery systems." For example, variations have been engineered to handle multiple requests.

For more information about hemostatic Y-connectors, contact your Territory Manager.



UPCOMING TRADE SHOW SCHEDULE

SHOW	LOCATION	DATES	BOOTH #
MD&M Minneapolis	Minneapolis Convention Center	October 23 – 24, 2019	1423
BIOMEDevice San Jose	San Jose Convention Center	December 4 – 5, 2019	729
MD&M West	Anaheim Convention Center	February 11 – 13, 2020	1801
BIOMEDevice Boston	Boston Convention & Exhibition Center	May 6 – 7, 2020	421
MD&M East	Jacob K. Javits Convention Center	June 9 – 11, 2020	1329



MEET THE NORTHEAST SALES TEAM

Northeast Region Served by "Wicked Good" Sales Team

In this and future issues of *allianz*, we'll introduce the regional sales teams that do so much to make things work for B. Braun's OEM customers. We're starting at the top right of the map, in the densely settled Northeast. It's long been a hotbed for medical device and pharmaceutical companies.

The region here includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont. The team that works this busy territory brings a healthy combination of experience and service-oriented enthusiasm to their tasks. As an example, Senior Sales Service Associate Lora Pavlinsky has been serving customers for more than 12 years. The tenure compiled by Philip Milia, Senior Territory Manager, is more like 17 years.



Pictured left to right | Philip Milia, Lora Pavlinsky, Sondra Hines



THE BEST (AND LEAST BEST) OF THE NORTHEAST

Our regional representatives travel throughout the Northeast. Here's what they like best – and what they aren't so keen on.



Philip Milia | Senior Territory Manager

Favorite Northeast regional food item?

There's this seafood chowder at a place in Portsmouth, N.H., that's my absolute favorite thing to eat in the Northeast. It's got a mix of different shellfish and other fish meat in a light yet creamy broth. It's delicious.

Standout regional phrase I've noticed?

Every time I hear someone use the word "wicked" in their lingo, it catches my ear.

Something about the Northeast that folks can keep up there?

The New England Patriots. You have to respect them, but you don't have to like them.



Lora Pavlinsky | Senior Sales Service Associate

Favorite Northeast city or town?

New York City – a fun place with a lot of things to do.

Favorite regional food item?

Whole lobsters.

Something about the Northeast that folks can keep up there?

New England and Massachusetts sports teams.



Sondra Hines | Associate Account Manager, OEM & International Divisions

Favorite Northeast city or town?

I love exploring Boston for its history – the cool cobblestone streets and old buildings – as well as its food and craft beer scene.

Place in Northeast that I'd like to visit on vacation?

Vermont.

Something about the Northeast that folks can keep up there?

My brother-in-law, who lives in Providence, R.I. But also the traffic – specifically the Merritt Parkway in Connecticut.

Philip says one of the great challenges in this territory is also one of its primary rewards: "We get to be involved in so many different types of applications and market segments. Being able to be a part of so many different therapies that are helping people and changing their lives for the better is the most rewarding aspect."

To Lora, the unrelenting diversity of the work means that a service associate must have the ability to multitask to manage ongoing "contact with established customers for placing orders and addressing questions that inevitably arise."

Sondra Hines, Associate Account Manager, OEM and International Divisions, explains that flexibility is essential when working with customers to develop new devices or therapies. "I work with people in different roles with different personalities, across different divisions. Having played several team sports in high school, I would say that my ability to be a team player is key in OEM. In this division, you must be able to work together and collaborate with others."

All members of the Northeast team say upgrades to the B. Braun sales structure have improved their ability to leverage the company's expertise for OEM Division clients. Instead of attempting to be experts in every aspect of every discipline, they're doing more to connect customers with the experts inside the company. It's another expression of B. Braun's dedication to "Sharing Expertise."

To make this happen, we've added team members whose main function is daily customer support. Upgrading our Associate Account Managers is a prime example; it has improved customer service and information transfer to our OEM customers. Positive feedback we receive about services provided by the AAMs, our Sales Service Representatives and our Project Management team resonates throughout our organization.



COMMUNITY PROGRAM: TEAMWORK UNDER GLASS

Glass is among the world's most versatile of materials; it's both functional and beautiful in countless uses. Recently, a dozen members of the B. Braun team discovered yet another purpose for glass: the creation of stronger community bonds.

The group visited the Hot Glass Shop in the Banana Factory Arts and Education Center, Bethlehem, Pa., last April. In a unique team-building event, each of them created parts of a large glass sculpture soon to be installed at the nearby Lehigh Valley Reilly Children's Hospital in Allentown.

"The idea behind the artwork is to recognize the Children's Hospital as a critical community asset and to allow the community to be part of the overall project," said J. B. Reilly, a prominent regional real estate developer and philanthropist, whose name on the Children's Hospital represents his leading role in its funding. "The community's interest and support has been overwhelming. All kinds of people have gone to the Banana Factory and done the glassblowing."



Reilly and his wife, Kathleen, credit Lehigh Valley Health Network (a significant B. Braun customer) with important, perhaps life-saving, care for their daughters, Tricia and Maggie. Their contributions will help bring similarly crucial help to other children in the region.

The glass art draws on the Jack and the Beanstalk fairy tale for its theme. Consisting of three sizable globes formed from hundreds of "magic beans" created by participants in the hot glass experience, it was assembled through last summer, as more and more pieces were completed by about 100 individuals and teams.

Green, light blue and deep blue colors will predominate in the sculpture. Its three finished globes will be 2', 3' and 4' in diameter, containing 70, 160 and 280 "magic beans," respectively.

Members of the B. Braun contingent received basic hot glass instruction, then paired off to create their glass elements. "Each of us made one of three different shapes out of glass, each the size of a bread plate," said Tom Black, B. Braun Vice President/OEM and International Marketing.

"They walked us through a process where we'd pick a color, put the ball of glass at the end, blow it up and then shape it with pads. Our spheres and shapes were connected to each other to make a larger ball of glass, then that was connected to one of the three larger sculptures.

"This was a great project for all of us. Because we worked so closely together and all supported each other, it was an excellent team-building experience."

Said Dennis Gardner, Glass Studio Manager, "The studio work requires team communication, with everybody working on the same page. The participants learn how the process works, and I think they see how the dynamics here translate into other parts of their business. With many organizations and individuals contributing to making one piece of artwork, this really is a community-building process, too."

Every member of the B. Braun team also made a personal financial contribution to the Children's Hospital. When the artwork they helped craft is finished, it will be placed on permanent display on the ceiling inside the hospital's main entrance.

"The whole project is symbolic of how important it is to have a children's hospital in the local community for quality healthcare and quality of life," said J. B. Reilly. "It's absolutely great that B. Braun has embraced the Children's Hospital by participating in this. It says a lot about B. Braun and their employees."

"The whole project is symbolic of how important it is to have a children's hospital in the local community for quality healthcare and quality of life," said J. B. Reilly.





Ed Burnard | Director of Strategic R&D Projects

PATIENCE ON THE ROAD TO BETTER STANDARDS

(AND SAFER PRODUCTS)

It's 10 a.m. on a bright Wednesday in May, but in his office, Ed Burnard has no attention to spare for the sunny Lehigh Valley spring day outside his window. Ed's focused on an international conference call considering changes to standards that govern a critical aspect of many B. Braun products.

In the long run, the group's work on the standard Luer lock connection will directly affect patients, medical practitioners and institutions, device manufacturers and contract manufacturing customers worldwide.

Ed is the Director of Strategic R&D Projects at B. Braun's Allentown, Pa., plant. His work underscores B. Braun's dedication to the continuing refinement of the Luer connector, which is stretching into a second decade with a long road still to travel. The reliable, easy-to-use Luer is a conspicuous success in medical history, used hundreds of millions of times each year over the course of many decades.

The discussion about improvements to the standards revolves around enhancing the safety of the fitting's geometry. As such, Ed and his colleagues – mostly engineers and managers from other device companies as well as standards officials – are engrossed in a painstaking, years-long effort to hone the details of ISO 80369-7, an international standard that governs design and test methods for the Luer. (ISO 80369 standards for other connectors are also being revised.)

As Ed explains, stakes are high in this work. "It's important to make sure that other connector types can't connect to the Luer," he says. "The Luer fitting is generally used for intravascular or hypodermic applications." If, in the fast-moving, complex clinical world, a different connector should somehow be joined with a Luer, a patient might receive the wrong medication or other substances. The ISO 80369-7 group aims to define part geometry so well and precisely that it becomes almost impossible to accidentally mismatch connectors.



While patient safety is the core focus of Ed's "Dash 7" group, it's not their only concern. Many other issues are in play: the participation of national governance bodies, differing opinions on the best ways to achieve improvement, the commercial interests of participating manufacturers and more.

Discipline and dedication in this endeavor are duplicated in B. Braun's continuing work to update other ISO standards. Because B. Braun's deep involvement in the effort will help the entire medical device industry advance patient safety through connector design and harmonization, it also bolsters the company's ability to support contract manufacturing customers.

To take just one example, Ed explained that some OEM Division customers may need only a few thousand units of a given part each year. Converting the part to meet the newest ISO 80369-7 standards may be cost prohibitive. But if the part is used by several customers (including other B. Braun divisions), the design, tooling and requalification costs can be offset more easily.

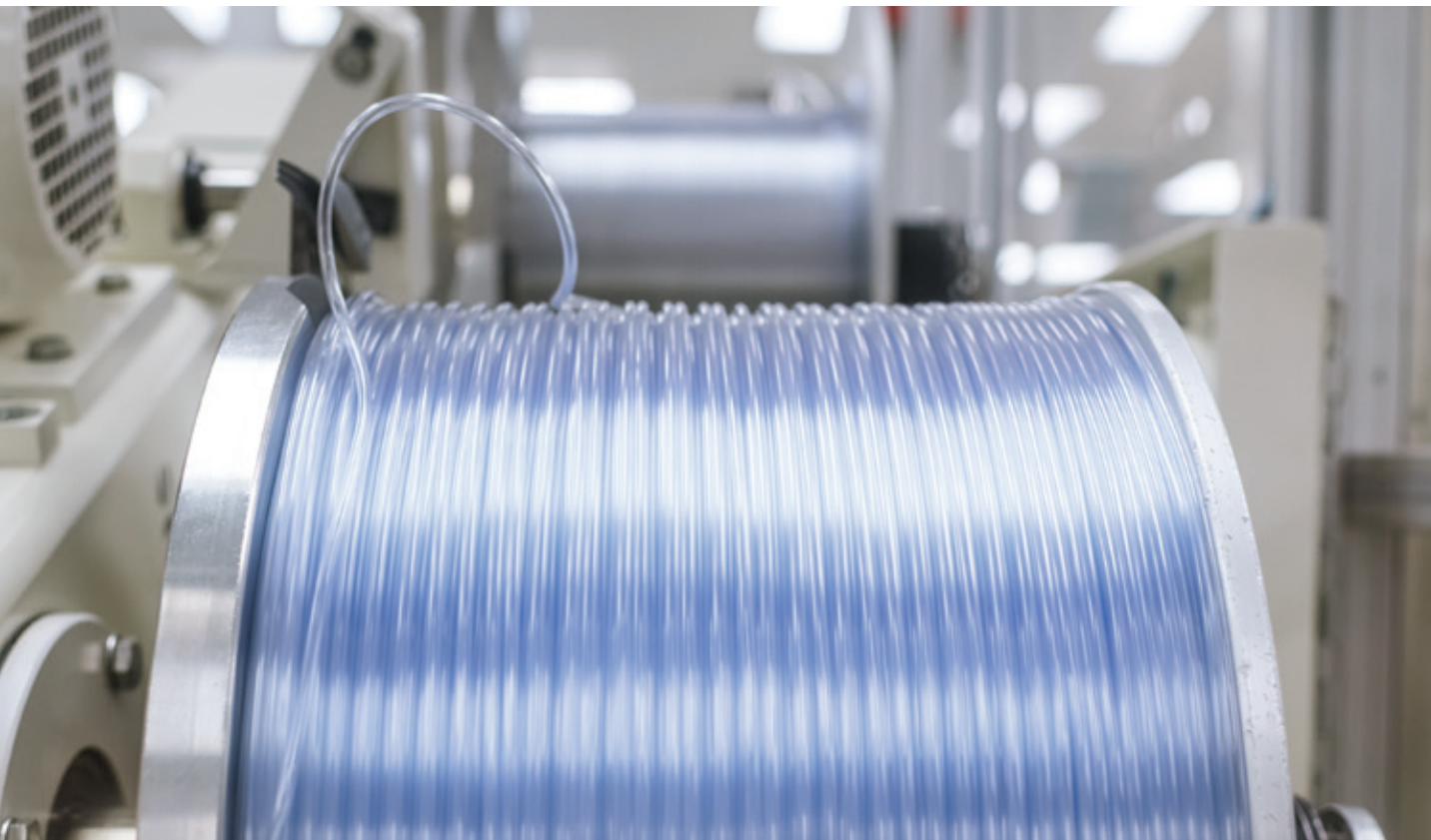
"In many cases, we've already researched the price of doing what a customer might need," Ed said. "The work we do for B. Braun can be for them, too. We're dedicating a lot of resources to the ISO 80369 project – and that's expertise that we can share with OEM Division customers."

"We're dedicating a lot of resources to the ISO 80369 project – and that's expertise that we can share with OEM Division customers."

—Ed Burnard, Director of Strategic R&D Projects

EXTRUSION FACTS

- In our current Extrusion Department, we have nine production extruders and three co-extruders.
- We currently have four HS extruders running speeds in excess of 800 feet per minute each.
- We produce 15 million feet per week using almost 70,000 lbs. of material on our four HS lines.
- The nine main extruders combined are capable of producing just over 1 billion feet of tubing a year, enough to wrap around the Earth eight times.
- The three co-extruders expand our capabilities to be able to produce many configurations of tubing, including multilayer tubing, stripe tubing, bead tubing, paratubing, multi-lumen tubing up to nine lumens, bump tubing and many combinations of the previous tubing.
- We run tubing with tolerances as low as 0.030" +- 0.001" OD and 0.015" +- 0.001" IDs and as high as 1" ODs.
- We run many polymers, including FPVC, DEHP-free FPVC, rigid PVC, polycarbonate, HDPE, LDPE, polypropylene, Tecoflex®, Tecothane®, Carbothane®, Pebax®, urethane, nylon, ABS and Santoprene®.
- We have the latest in extrusion technology utilizing ultrasonic in-line tubing measurements and laser OD gauges, real-time SPC and CPK trending, closed-loop control systems to regulate tubing dimensions and dual-head capabilities.



PARTNERING WITH PDE:

SHARING KNOWLEDGE, FINDING SOLUTIONS

B. Braun is fortunate to have one of America's oldest, most accomplished trade organizations very close to home. Our longstanding relationship with PDE, a regional pharmaceutical group for the metro Philadelphia area, has helped us be more responsive to the needs of the healthcare system – especially our OEM customers.

PDE provides a forum for interaction, communication and education with frequent symposiums and interactive events among members who include pharmaceutical manufacturers, allied trade industries and pharmacy schools. The association promotes valuable business/professional relationships among its members. It also awards scholarship opportunities to children of employees from PDE member companies and students in pharmaceutical studies.

At PDE's benefit Spring Golf Outing last May, B. Braun's Hany Mikhael and Ken Telfort had an opportunity to address attendees on Operational Excellence. The executives described the impact of a culture of corporate excellence, one that can reach across multiple disciplines to improve processes and benefit customers.

"They described the ways that operational excellence affects many aspects of work, from the pharmaceutical supply chain to HR issues," said Roger Asselta, PDE

vice president. "We're grateful for the involvement of B. Braun and the sharing of its expertise as we focus on many issues in healthcare."

B. Braun's enthusiastic support of PDE and its efforts is reflected in its regular participation in association events, where it often provides speakers like those who took part in the May outing. The company's Rob Albert, B. Braun's Chief Marketing Officer, was formerly a PDE president, and Senior Northeast Territory Manager Phil Milia has been an especially active participant. He currently chairs the association's scholarship committee.

Phil himself pointed out the particular connection between the PDE and efforts on behalf of OEM clients at B. Braun and other firms. "There's lots of networking happening at these events," he said. "If problems arise, I've got more contacts and a larger knowledge base. All these connections really can help identify resources to support our contract manufacturing customers."

"We're grateful for the involvement of B. Braun and the sharing of its expertise as we focus on many issues in healthcare."

HEAVY ROTATION:

HELPING B. BRAUN ENGINEERS START STRONG

At the end of 2014, Catherine Rudnick was a newly minted graduate of Carnegie Mellon University in Pittsburgh. She'd concluded a double major in mechanical and biomedical engineering. Even for someone with the focus that kind of achievement suggests, it's possible to be a little uncertain about what work you'll find most engaging and satisfying.

Though she'd acquired some interesting work experience through internships, Catherine had yet to decide what her engineering career might look like. "I didn't know where I wanted to wind up," she said. She found the answer, at least in part, through the rotational program for engineers at B. Braun.



Pictured left to right | Catherine Rudnick & Dawn Kentner

"It's the varied experience that helps make the program effective."

—Dawn Kentner, Manager, OEM Product Development

EXPLORING SEVERAL PATHS

Dawn Kentner, Manager, OEM Product Development, is a leader in the program. The basic plan, she says, is to give new hires the opportunity to work in a variety of engineering specialties before deciding which career path looks most appealing to them.

Participants sign on for a rotating series of assignments over the course of two years. They take their turns working in quality control, manufacturing and sustaining engineering, research and development or other engineering disciplines – at least three rotations all told.

Though it's certainly not the program's only value, participation helps groom engineers who are particularly well suited to serve contract manufacturing customers. They've internalized cross-training that better equips them to contribute to OEM Division projects at every stage.

"A good example of the benefit of having an engineer who's been through the program shows up when it comes to quoting," Dawn said. "When they must bid jobs, the broad visibility they've acquired throughout the process is useful. They know how to prepare and execute different aspects of the work. They've learned what impacts changes have, and their insights are very valuable."

Though the rotational structure is not unique to B. Braun, it is fairly novel, Kentner says. Her experience has shown it to be just as important to the company as it is to budding engineers. "Sometimes they don't end up where we think they're going – or even where they think they're going. It's the varied experience that helps make the program effective," she says.

AT HOME IN R&D

For Catherine Rudnick, committing to the rotational program brought the opportunity to get seriously involved in a wide range of projects and responsibilities. She cycled through work in Q/C, manufacturing/sustaining, and R&D for OEM and more.

"I worked across many types of clients, with people at both the Dominican Republic and Pennsylvania facilities," she said. "Rotation allows you to dig deeper in a variety of projects. You learn how products are used, spend time talking to suppliers, learn how to minimize problems. Much of the experience has been interdepartmental, and it's all very useful."

Where has this smorgasbord of work experience led her? Today she's an OEM project engineer on the research and development side – and, from that post, she's typically the lead on her assignments. "There's definitely value in the program," Catherine said. "If you'd only been in R&D, you'd have a much more limited perspective. This helps quite a lot for a young engineer."

"WHAT I'VE LEARNED"

"IN HEALTHCARE AND IN LIFE, DON'T BE AFRAID TO CONTINUALLY QUESTION, TRANSFORM, AND PURSUE NEW APPROACHES THAT DISRUPT CONVENIENCE IN FAVOR OF THE GREATER GOOD."

- MIKE GOLEBIOWSKI,
VICE PRESIDENT OF MARKETING, HEALTHCARE STRATEGY & INNOVATIONS

"ALWAYS START WITH THE CUSTOMER'S UNMET NEEDS AND PAIN POINTS BEFORE IDENTIFYING SOLUTIONS THAT WILL CREATE VALUE FOR BOTH PARTIES."

- LEO WONG,
DIRECTOR HEALTHCARE STRATEGY & INNOVATION

"KEEPING THE CUSTOMER FIRST IS OUR MAIN KEY TO SUCCESS. HARD WORK AND DEDICATION WILL ALWAYS PAY OFF IN THE END."

- TRISHA COBBS,
SALES SERVICE MANAGER, OEM & INTERNATIONAL DIVISIONS

"THE MEDICAL DEVICE INDUSTRY IS LIKE ALL OTHERS—SUCCESS SPROUTS AND BLOSSOMS FROM FOUNDATIONALLY STRONG CUSTOMER-SUPPLIER RELATIONSHIPS."

- AARON FLEMING,
ENGINEER, OEM PRODUCT DEVELOPMENT

"IN THE MEDICAL DEVICE INDUSTRY, ATTENTION TO DETAIL IS CRITICAL. THE LITTLE THINGS CAN MAKE THE BIGGEST DIFFERENCE."

- BECKY GUMAN,
ACCOUNT MANAGER, OEM DIVISION

"WE HAVE A POOL AND A POND. THE POND IS BETTER FOR YOU."

- TY WEBB,
LUMBERYARD OWNER

"JOHN WOODEN ONCE SAID, 'IF YOU DON'T HAVE TIME TO DO IT RIGHT, WHEN WILL YOU HAVE TIME TO DO IT AGAIN?' B. BRAUN HAS THE EXPERTISE AND KNOW-HOW TO ENSURE THINGS ARE DONE RIGHT THE FIRST TIME."

- REGGIE ROBERTSON,
SALES MANAGER, OEM DIVISION

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B. BRAUN SPOT THE DIFFERENCE

Find and circle the six differences between the two photos as quickly as you can. Enjoy!





“As to diseases, make
a habit of two things:
to help, or at least,
to do no harm.” – Hippocrates

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