



DELAWARE TECH

DEMEEP

Delaware
Manufacturing
Extension
Partnership



Local Simulated Care Startup Expands Operation

Members of the
Avkin team : (left
to right) Enrique
Nieves, Amy Bucha,
Dave McGonigle,
and Olivia Smith

GROWING | CONNECTING | BUILDING

Partnering for Success:

DEMEP Provides Avkin Lessons for Business and Life

By Allison Hayes

When Amy Bucha is approached about having a “hot” conversation by a coworker, she vows to keep an open mind and listen. That hot conversation may not be what you think, however. Hot stands for honest, open, and trusting, and Bucha and her team at Avkin learned about it during a leadership class with the Delaware Manufacturing Extension Partnership (DEMEP).

Bucha, chief scientific officer for Avkin, said her team calls on DEMEP regularly for help with issues big and small. Based on this help, executives have created processes for everything from how to deal with vendors and inventory levels to how to run an effective meeting.

“When you are new to business, it helps to have a trusted advisor,” said Bucha. “We are learning from experts who have experience with a variety of companies. Our problems are unique to us, but not to the DEMEP experts.”

DEMEP is Delaware’s official representative of the MEP National Network™, a unique public-private partnership that delivers comprehensive, proven solutions to U.S. manufacturers, fueling growth and advancing U.S. manufacturing. DEMEP is administered through Delaware Technical Community College in partnership with the United States Department of Commerce, the National Institute of Standards and Technology, the Delaware Division of Small Business, and the Delaware State Chambers of Commerce. Through these partnerships, DEMEP draws its resources from local and national universities, community colleges, research institutions, private consultants, and a network of 51 MEP Centers located in all 50 states and Puerto Rico. With these unique relationships, the DEMEP can provide its clients with confidential access to their industry’s best practices, processes, and business improvement methodologies.

Bucha said the lessons she and her Avkin colleagues have learned from DEMEP are evident every single

day. For example, the company gathers daily from 11 – 11:15 a.m. for “gemba time” where each department reports on their progress and plan for the day. The quick meeting keeps everyone on track, and highlights the big picture of how different areas of the company influence each other.

“It allows us to set metrics and go from being subjective to being objective about each problem,” said Bucha. “Gemba time lets us be deliberate in our work.”

Founded by nurse educator Amy Cowperthwait in 2015, Avkin is a small – and growing – company that creates and provides products that improve the learning experience and training of future healthcare providers. Through collaboration and ingenuity – and “hot” conversations – Avkin is dedicated to improving healthcare by significantly elevating patient-centered simulation experiences.



Production Manager Enrique Nieves quality checks the Avtrach by listening to the lung sounds.

Avkin is a growing company that creates wearable technology for patient-centered simulation. Their mission is to imagine, create, and provide products that improve the learning experience and training of future healthcare providers.



Amy Bucha, Chief Scientific Officer, Avkin

The Avkin team develops products that allow future healthcare providers to practice such skills as drawing blood, placing catheters and caring for tracheostomy patients, while using patient actors rather than mannequins. The actors wear simulation products to provide a human element to the experience for the provider-in-training. For example, an actor might have a silicone product made to resemble skin with simulated “veins” draped over her arm, so a future phlebotomist could practice drawing blood.

Over the past five years, Avkin has grown in capacity, while maintaining a lean operation. This contributes to their ability to be nimble and react to the market and their customers’ needs.

“One thing we focus on a lot at Avkin is customer discovery,” said Bucha. “We have the advantage of being customers of this technology, so we know the pain points.”

The company is funded through the BH-POC Grant from the Horn Program at the University of Delaware, and was recently awarded the EDGE grant from the Delaware Division of Small Business. They also receive support for training from the Workforce Training Grant from the Delaware Division of Small Business.



Members of the Avkin team review the components of a new product as it transitions from Research and Development to Manufacturing.

Photography by Cherie Roberts

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~ Amy Bucha, Chief Scientific Officer, Avkin



Amy Bucha, Chief Scientific Officer, and Olivia Smith, Product Development Engineer, review the app Olivia is developing for a new product to be released this winter.

Bucha said that over the years Avkin team members have taken a variety of DEMEP courses for small and mid-size manufacturers, including Lean Six Sigma and Expotech.

“When production began, it was slow and variable,” said DEMEP consultant Jim Jones, who works with Avkin closely as a business advisor. “Avkin saw the need for developing good processes that would allow them to scale production levels efficiently while maintaining good quality for customers.”

Operations Manager Dave McGonigle has grown with the company, starting as an intern in high school. As his role has expanded, he has found value in the DEMEP classes he has taken and believes they have made him a better professional and leader.

“I have gained a tremendous amount of knowledge from the classes,” he said. “I’ve learned how important it is for the whole company to buy into these concepts. It has changed our culture.”

What’s next for Avkin?

The company is currently securing a new, larger facility, where it will be able to expand and grow. DEMEP is helping set up the new space by using 3P – an exercise that maps the company’s processes, sets up the space accordingly, and then simulates a day to see what might need to be changed.

“It’s a new way of thinking for us. We are looking to keep growing and releasing more products,” said Bucha. “We are offering disruptive technology, as well as more affordable and realistic solutions.”

“We offer something that is next level,” said McGonigle. “It’s about staying innovative and on top of the game.”