



OCTOBER 2018

5th Annual SOVA Career Choice Youth Expo is a Hit

Celebrating its fifth year, the SOVA Career Choice Youth Expo, organized by the Institute for Advanced Learning and Research in partnership with area K-12 Career and Technical Directors, attracted 4,106 middle and high school students from seven localities—one of the largest crowds yet. Students enjoyed the opportunity to interact with more than 50 employers from a wide array of career sectors to learn about occupational opportunities available to them in Southern Virginia. For the first time, an “Expo in the Evening” preview event was open to the public the night preceding the student days.

“Successful talent development starts with early exposure of our youth to the career opportunities and businesses right here in Southern Virginia,” said Dr. Julie Brown, IALR’s Director of Advanced Learning. “We are fortunate to benefit from the collaborative efforts, time and energy of a remarkable group of volunteers, school districts, employers, sponsors and staff members like Jessie Vernon, who spearheaded much of the Expo’s planning and implementation efforts.”

An award-winning event, the Expo has been replicated in Southwest Virginia and Richmond. Each year, middle and high school students are engaged in hands-on activities led by employers to help them explore career choices. Schools within the Virginia communities of Danville and Martinsville and the counties of Halifax, Henry, Mecklenburg, Patrick and Pittsylvania participated in this year’s event.



The Expo showcases existing job opportunities each year so that students will have an option to stay in the region, based on an informed career decision with a clear understanding of skills needed, education levels required and salaries they can expect. The event remains an intentional effort to build a pipeline of students in strategic sectors that are aligned with economic development interests, including advanced manufacturing, healthcare, cybersecurity/IT-related fields and others.

Platinum-level sponsors of the event included the Institute for Advanced Learning and Research, the Southern Virginia Higher Education Center, Averett University, Goodyear, Piedmont Access to Health Services, the Danville Regional Foundation, The Harvest Foundation, Microsoft and J.T. - Minnie Maude Charitable Trust. Silver sponsors included Eastman, MedExpress and Centra Health.

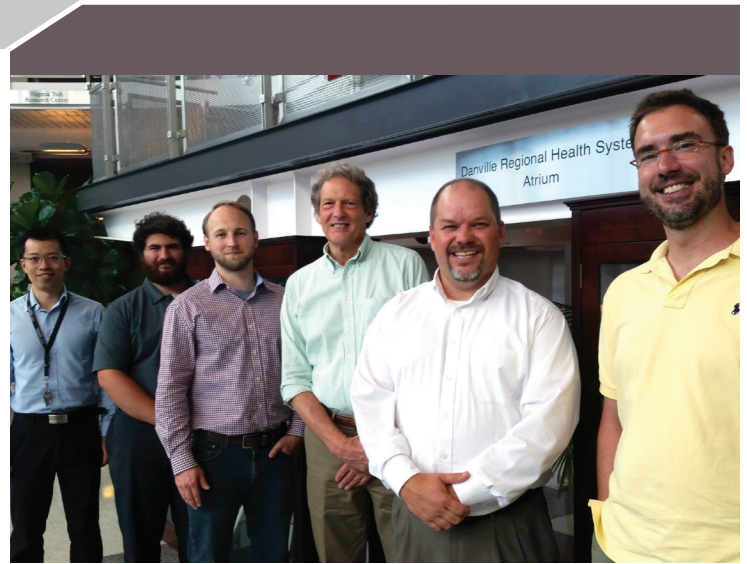
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“It’s so important to give them this kind of exposure as early as possible,” said Frances Bradford, Virginia Deputy Secretary of Education, who traveled from Richmond to attend the event.

Analytical Chemistry for UVA

IALR has formed a new partnership with Biology Professor Dr. Michael Timko (pictured, fourth from the left) and Biochemistry Professor Dr. Bryan Berger (pictured, right), both of the University of Virginia, to study various aspects of hemp growth and processing. Industrial hemp has seen applications in biofuel, dietary fiber, textile, pulp and paper, personal care products and health supplements. Dr. Timko is working to develop new varieties of hemp suitable for growth in Virginia, and IALR's analytical chemist, Jack He, will use his state-of-the-art Waters Ultra Performance Liquid Chromatograph tandem Mass Spectrometer (UPLC MS/MS) to help determine which new variety is best.



GO Virginia's GO-TEC Update

IALR's Dr. Julie Brown, Director of Advanced Learning, has been named Interim Director of GO-TEC (Great Opportunities in Technology and Engineering Careers) to help champion program efforts. Faculty and partners of Danville's Westwood Middle School and Pittsylvania County's Chatham Middle School have been busy installing, learning and implementing programming around new, specialized equipment for their pilot career connection labs. Earlier this year, GO-TEC received funding through GO Virginia Region 3 (Growth and Opportunity for Virginia) to expose middle schoolers to precision machining; welding; information technology and cybersecurity; healthcare; robotics, automation



Greg McQuaid of The Lincoln Electric Company shares the capabilities of the new welding simulator for the pilot career connection labs.

and mechatronics; and advanced materials, expanding the pipeline for these high-demand career sectors. GO-TEC partners include Danville Community College, IALR, Southside Virginia Community College, the Southern Virginia Higher Education Center, Patrick Henry Community College and the New College Institute with pilots at Danville Public Schools and Pittsylvania County Schools.

Gretna Welcomes New Business

Virginia Secretary of Agriculture and Forestry Bettina Ring joined the Town of Gretna, Pittsylvania County and the Southern Virginia Regional Alliance to announce the addition of Micro Blenders, Inc., to Gretna's business landscape. The company shared it will invest more than \$3.5 million and bring 15 jobs over the next three years. Micro Blenders is a subsidiary of QLF, Inc., a nationwide leader in the development and manufacturing of liquid feed supplements and cooked low moisture blocks for animals. It will occupy the space once held by Techma.



Lowman Named Director of Applied Research



Dr. J. Scott Lowman has been named IALR's Director of Applied Research. Previously Chief Scientist at IALR, Lowman joined the organization in 2014 and has championed work in biotechnology and advanced imaging to improve agricultural productivity and sustainability.

He played an integral role in IALR's recent licensure of a collection of endophytes (or beneficial plant bacteria) to Indigo Ag, Inc., a prominent company dedicated to harnessing nature to help farmers sustainably feed the planet. He has helped lead efforts to produce a library of more than 1,500 characterized endophytes, which continues to grow.

Lowman was named a 2017 Outstanding Recent Graduate Alumnus at Virginia Tech and was presented the Commonwealth Environmental Leadership Award from the Waldorf Foundation.

Smith-Herndon Earns Accolades

Research Associate Samantha Smith-Herndon has recently earned significant accolades. Ferrum College named her a 2018 Outstanding Young Alumni Awardee, the Danville Pittsylvania County Chamber of Commerce selected her as a Leadership Southside program participant and Middle Border Forward accepted her as an MBF Fellow.



Smith-Herndon has gained exposure for managing the Tobacco Region Revitalization Commission's Next Generation Precision Agriculture Grant. Since 2017, she has led this project involving drones and remote sensing technology to enhance farming accuracy for increased efficiency and cost management, known as precision agriculture. She is currently licensed as a Remote Pilot by the Federal Aviation Administration. Earlier this year, she received the Southern Piedmont Technology Council's Rising Star Award.

Precision Agriculture Helps Hops Farm

Not only is Mountain Valley Brewing planning an expansion as was recently announced by the Commonwealth of Virginia, but they are also active participants in IALR's precision agriculture program.

IALR researchers collect data from the brewery's quarter-acre hops field through unmanned aviation systems. Most recently, Mountain Valley was selected for field trials using in-ground sensors, which provide feedback about site-specific conditions of fields in relation to temperature, moisture and light availability. With the help of IALR's team of researchers and scientists, the sensors were installed during the summer of 2018 and will possibly be utilized on the hops farm to combat soil-borne disease and potential pathogenic threats to their hearty crop.



Virginia Secretary of Agriculture and Forestry Bettina Ring (left) presented Mountain Valley Brewing owners Herb Atwell (center) and Peggy Donovan (right) with a state flag at the recent announcement of their expansion.

9th Annual
**Decorating
the Trees for a
Cause**

Help raise proceeds for local charities.

**Call 434-766-6743 or email ellen.bass@ialr.org
to join the cause with your tree today!**

Kyocera Cuts Ribbon



Kyocera SGS Tech Hub recently celebrated the ribbon cutting of their newly constructed 30,000-square-foot facility, marking the beginning of a new chapter in their two-year presence in Southern Virginia. The journey started when the company learned of the region's commitment to developing a highly qualified, skilled workforce and business-friendly approach.

Activity escalated in September 2016 when Kyocera announced it would invest \$9.5 million in constructing a new facility in Danville, creating 35 new jobs paying an average annual salary of \$65,000. The company soon

occupied rapid-launch space in the IALR main facility as well as at the Charles Hawkins building on the campus of IALR. The location gave them proximity to the state-of-the-art equipment, expert faculty and promising students of the renowned Gene Haas Center for Integrated Machining, which also occupied the Hawkins building.

IALR's start-up space in the Hawkins building allowed Kyocera access to administrative support and concierge services from IALR. In their high-bay space, they were able to begin limited operations while their facility was being constructed and equipped to support full operations. The nearness of the rapid-launch space to their permanent site proved highly convenient during the construction and transitional move-in phases.

Kyocera SGS Tech Hub, a subsidiary of Kyocera SGS Precision Tools Inc., will produce customized solutions for its customers while actively evaluating and researching new best practices. The striking design of its new Danville facility positions the manufacturing space as the focal point, surrounded by glass and featured as a showroom. The approach underscores Kyocera's commitment to quality, high-tech advanced manufacturing.

Mega Site Certified as Infrastructure Ready

The Southern Virginia Mega Site at Berry Hill has been certified by the Commonwealth of Virginia as "infrastructure ready." Virginia Secretary of Commerce and Trade Brian Ball and Stephen Moret, President and CEO of the Virginia Economic Development Partnership (VEDP), joined Southern Virginia economic developers and community leaders recently to share this significant update and to participate in tours of workforce development and revitalization efforts.

The "infrastructure ready" certification is the fourth of five tiers required to ultimately reach "shovel ready," or tier five, status. According to the tier four requirements of VEDP, all infrastructure is in place or will be delivered within 12 months, and all permit issues have been identified and quantified. Tier five will be completed as the last step when industry site occupants are identified and permits are in place.

The Southern Virginia Mega Site at Berry Hill includes 3,528 acres and boasts 12 industrial lots ready to accommodate a single user or ready for subdivision to suit,



with the largest contiguous lot acreage exceeding 2,000 acres. The mega site hails as the largest such industrial park in Virginia and is one of only seven to achieve tier four certification. Currently, there are no tier five sites in the state. With access to major transportation routes, partners with temporary rapid launch space, potential suppliers and a sought-after advanced manufacturing talent pipeline, the industrial park clearly rises as a viable, leading option for top industry contenders and Original Equipment Manufacturer (OEM) operations, particularly within the automotive and aerospace sectors.