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Annual open house at Tabler Farm

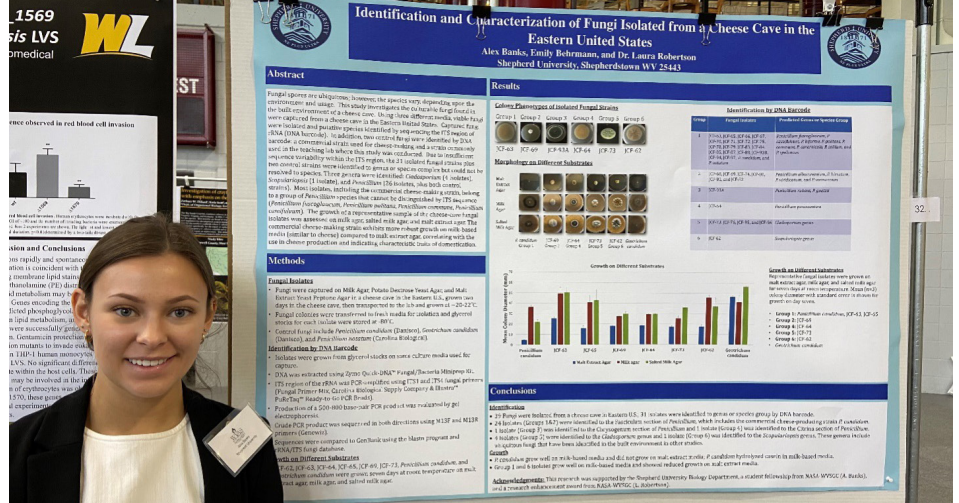
The Agricultural Innovation Center at Tabler Farm held its annual fall open house on November 12, 2022. Visitors explored the newly expanded aquaponics lab, apiary, high tunnel, orchard, field production, and the native food forest. In addition, guests could enjoy complimentary farm-to-table treats made by environmental science student Amanda Brooks.

Pictured left: (top) Kids Zone where children could hang out with Shepherd students and paint pumpkins grown at the farm; (middle) Amanda Brooks made delicious farm-to-table treats; (bottom) The Agricultural Innovation Center at Tabler Farm team, (l. to r.) Madison Hale, Dr. Brooke Comer, Dr. Peter Vila, and Matthew Ware, introduce Open House guests to the farm and the sustainable agriculture program. Pictured below: Dr. Jeffery Groff, chair of the Department of Environmental and Physical Sciences and hobby beekeeper, explains to visitors the process of raising honeybees.



96th annual West Virginia Academy of Sciences meeting

Research student Alex Banks presented a poster at the 96th annual West Virginia Academy of Sciences meeting in Fairmont, West Virginia, on Saturday, April 23, 2022. Alex graduated in December 2022 and is heading to the WVU School of Dentistry.



Restoration of the Carl Bell Arboretum on West Campus continues!

Last spring, students from the biology and environmental studies departments and biology faculty planted seven trees and installed eight bluebird houses. Trees were planted as part of our Arbor Day celebration, including five redbud trees to honor recently retired Department of Biology Chair David B. Wing. The birdhouses were installed with expert advice from local members of the Potomac Valley Audubon Society. Word on the street is that bluebirds turned up soon after!



2022 Career Pathway Series

During Fall 2022, Career Pathways Series (CaPS) hosted three seminars about careers in science, internships and research opportunities, and application processes. Over 40 Shepherd students attended each event. There are three additional seminars scheduled in Spring 2023.



New Tabler Farm workshop series

Tabler Farm will offer its first-ever workshop series during the 2023 growing season. Nine workshops over the 2023 growing season will focus on small-scale, intensive vegetable production techniques and specialty workshops in beekeeping, mushroom cultivation, permaculture, and aquaponics. Designed for farmers, serious gardeners, homesteaders, and anyone interested in sustainable agriculture, this series is in partnership with the West Virginia Department of Agriculture Veterans and Heros to Agriculture.



New research experience and exposure opportunities for science students

Science students at Shepherd University will have the opportunity to gain practical research experience and exposure to state-of-the-art technology thanks to a new memorandum of understanding between the University and the Frederick National Laboratory for Cancer Research (FNL) in Frederick, Maryland.

The agreement states that the FNL and Shepherd have a shared interest in furthering biomedical research, and both anticipate benefits from the exchange of training, research, and expertise.

The University and FNL plan to work together to provide student training in STEM fields focused on biomedical research, including data science, bioinformatics, imaging, and cancer biology. Both FNL and the University plan to host mutual visits, seminars, and exchanges of technical expertise for workforce development and community involvement.

Pictured above: (l. to r.) Vladimir Popov, Ph.D., Frederick National Lab chief innovation officer; Ethan Dmitrovsky, M.D., Frederick National Lab director; Dr. Mary J.C. Hendrix, Shepherd president; and Dr. Robert Warburton, Shepherd College of Science, Technology, Engineering, and Mathematics dean.



Dr. Jason Best

Dr. Jason Best to serve on the West Virginia Science and Research Council

Gov. Jim Justice has appointed Dr. Jason Best, Shepherd University professor of astronomy and astrophysics and assistant provost for institutional effectiveness and academic strategic partnerships, to a four-year term on the West Virginia Science and Research Council.

Beta Beta Beta plants 30 trees in Charles Town, West Virginia

Last spring, members of the Shepherd chapter of Beta Beta Beta biology honors society took part in a large volunteer effort to plant 30 trees in Charles Town, West Virginia. The planting event is part of a West Virginia Division of Forestry grant

awarded to Dr. Company to understand the impacts of urban heat on the ecophysiology of recently planted urban trees. The pictures show over 40 volunteers planting the 'control' trees in Willingham Knolls Park in coordination with Charles Town's Arbor Day event.



Faculty and students take part in the annual fall picnic

On Wednesday, September 14, 2022, the College of STEM held its annual fall picnic. Faculty and students enjoyed pizza and drinks, as well as a rousing game of wiffle ball.

Faculty Grants

Haley Albright—NASA EP Seeding Your Future Conference (\$16,625)

Sara Reynolds—NACA CCDP: Modernization of Microbiology in a Diverse, Post-pandemic Classroom (\$10,000)

Sara Reynolds—WISH Shepherd University Learning Grant - Equipping Shepherd Students to Solve Current and Future Challenges in Healthcare and Science (\$31,875)

Dr. Haley Albright and the Seeding Your Future team (Dr. Jacquelyn Cole, Dr. Sytil Murphy, and Ms. Kay Dartt) received a \$515 grant from the American Society of Biochemistry and Molecular Biology in the spring to offer four science workshops for middle and high school students as well as a \$5,000 NASA West Virginia Space Grant Consortium grant for the fall conference and additional science workshops.

STEM Student News

During the 2021-22 academic year, the Department of Computer Science, Mathematics, and Engineering (CME) enjoyed support from JLG Industries, located in Hagerstown, Maryland. JLG supported the Career Fair, the Robotics Club, the carbon fiber strength testing project, and several capstone projects. Several students applied for internships at JLG or its corporate parent in Oshkosh, Wisconsin. The following Shepherd students are enjoying paid summer internships at JLG.

John Little (software)

Michael Nasuti (quality)

Ethan Bevan (corporate IT)

Zachary Spiggle (IT-business intel)

Audrey Flaherty (product management)

Matthew Johnson (product management)

Two CME students visited a carbon fiber composite research lab in Ona, West Virginia, in March 2022.

CME Robotics Team competed at Fairmont State in March 2022.

Over Summer 2022, four CME students—**Susant Sigdel**, **Sullivan Steele**, **Ryan Stroz**, and **Theodora Nguyen**—participated in an NSF REU program at WVU. Each student was given a Fitbit health tracker and learned to apply data analytics methods to data collected from the group.

CME graduate **John Little** began graduate studies in computer science at WVU.

Faculty News

HIGHLIGHTS

Laura Robertson presented a talk titled “Mushrooms and Fungi” at the WVU Kearneysville Tree Fruit Research and Education Center on July 9, 2022. The talk was organized by the Master Gardeners and was open to the public.

Laura Robertson presented “Science Stories in Fabric,” a textile art exhibit at Shepherd University Scarborough Library from October 7-November 2, 2022, with an artist talk on October 11 at 5 p.m.

Laura Robertson joined English major/Appalachian studies graduate student Julie Shehan on “Voices from Appalachia Radio Show” on January 21, 2023, to talk about science, quilting, fiber arts, and the creative side of a biologist/geneticist.

Dr. Jacquelyn Cole (Density of Mangrove Propagules) and **Dr. Haley Albright** (Design of a STEM Workshop Focused on Natural Products for Middle School and High School Students) attended and presented at the Mid-Atlantic Regional Meeting of the American Chemical Society at the College of New Jersey in June 2022.

Dr. Jacquelyn Cole (Seeding Your Future Conference, taking a STEAM conference from in-person to virtual back to in-person again) and **Dr. Haley Albright** (Design of a STEM Workshop Focused on Natural Products for Middle School and High School Students) attended and presented at the Biennial Conference on Chemical Education at Purdue University in July 2022.

Dr. Jacquelyn Cole was awarded the 2022 Advising Faculty Award.

Dr. Jacquelyn Cole named inaugural John T. Reynolds Endowed Chair for Chemistry.

PUBLICATIONS

Court Campany:

NPH-MS-2022-40616.R2 The reduced role of water transport during the Cenozoic evolution of epiphytic Eupolypod ferns by Pittermann, Jarmila; Baer, Alex; Campany, Courtney; Jansen, Steven; Holmlund, Helen; Schuettpeitz, Eric; Mehlreter, Klaus; Watkins, James

Jason Miller: Spatial and temporal regulation of parent-of-origin allelic expression in the endosperm



Seeding Your Future Conference 2022

The eighth annual Seeding Your Future Conference (SYFC) for 5th-8th grade girls was held on Saturday, November 12, 2022. The students enjoyed a free fun-filled day of science, technology, engineering, and mathematics exploration.



Seeding Your Future Workshop Series

The Seeding Your Future Workshop Series began in Fall 2022 with an “Exquisite Corpse” workshop in October and a “Holiday Chemistry” workshop in November.

Four additional workshops will be held in Spring 2023:

Workshop #3: on Tuesday, January 17

Workshop #4: on Tuesday, February 21 (registration link available 2/01/23)

Workshop #5: on Tuesday, March 21 (registration link available 3/01/23)

Workshop #6: on Tuesday, April 18 (registration link available 4/01/23)

