

PARTNERSHIP

WVJC, Mon Health adapt to changing world

BY KAITLYN EICHELBERGER Keichelberger@DominionPost.com

Following the stress placed on health care providers and educators during the COVID-19 pan-West Virginia demic. Junior College (WVJC) and Mon Health System are working to clear a path toward more advanced, accessible education for

nurses in West Virginia. In April 2022, WVJC and Mon Health announced a collaboration on the WVJC School of Nursing at Mon Health program — an accelerated 18-month nursing degree designed to provide hands-on experience for students and streamline the employment process following graduation. The hybrid online nature of this course also provides flexibility for students in rural areas, made easier by WVJC and Mon Health's latest project — the Ron and Stephanie Stovash Mobile Nursing Lab.

The Mobile Nursing Lab is a 38-foot vehicle composed of two simulation hospital rooms and a control room, outfitted with advanced equipment for both students and practicing nurses to advance their skills. Robotic mannequins are programmed to simulate real-world experiences students will encounter in their classes and careers, from taking a patient's vital signs to delivering a baby. Cameras inside the lab and monitors outside the vehicle allow students to reflect on their work and the work of their classmates.

The lab is named for Mon Health System board member Ron Stovash and his wife Stephanie, who helped to fund the project alongside The Health Plan and the Hazel Ruby McQuain Charitable Trust. Ron was formerly chair

of the board. As part of the rural pro-



Krystian Leonard (left), Miss West Virginia USA 2022, Ron Stovash and Stephanie Stovash applaude the unveiling of the Ron and Stephanie Stovash Mobile Nursing Lab. Below, West Virginia Junior College nursing student Elizabeth Allen demonstrates one of the stations at the lab.

gram initiative, WVJC implemented its own Mobile Nursing Lab last year, after which the school and hospital were able to model the newest nursing lab. Mon Health also has a simulation lab within the medical center and had intended to expand, but wanted the lab to be accessible to all of their locations and employees. Thus a lab on wheels.

Accessibility to students in need of a flexible education was a key motivator of this project.

"From a creative perspective, where we are in health care today, we have to continue doing things that are different," said Mon Health Medical Center Chief Administrative Officer Dr. Krystal Atkinson. "Gone are the days of traditional classes. We have to meet people where they are. We have people who need to work but also have drive and desire to be able to go to school."

Students aren't the only group to benefit from the mobile nursing lab — the clinical simulations will also be used to refresh and advance the education of Mon Health's current employees.

"You never stop learning. There's always something that is changing, whether it's technology or procedures. Simulation provides a wonderful opportunity for people to hone up on their skills," said Atkinson. "Whether



it's a student or experienced nurse, it provides comfort and confidence. When you feel more confident, patients see that and have decreased anxiety."

Another issue the Mobile Nursing

intends to address is the statewide nursing shortage. By broadening access to education, ensuring students are prepared to enter the workforce and extending this support for employees, the Mobile Nursing

Lab will equip the state's nurses with the tools needed for success.

"Whether they're current nurses or they're students coming on board, we're trying to make sure they have support at every turn," said Atkinson. "If we have good support and engagement for our staff, that just comes to positive outcomes for our patients."

This shortage of nurses in West Virginia and across the country can't be accredited to just COVID's impact, said WVJC Chief Executive Officer Chad Callen. With an aging population, declining birth rates and earlier retirements, now is the time to reassess education and health care and make room for innovation.

"It's becoming more apparent that higher education and employers need to work more closely if we're going to solve nursing workforce challenges."

Hospital systems and schools have a cultural alignment, he said. That's what makes collaborations like this effective.

As for the future of the WVJC and Mon Health's partnership, Callen said the sky's the limit.

On April 10, 48 students began the WVJC School of Nursing at Mon Health program. The Mobile Nursing Lab was unveiled May 11 and is now ready to begin training students health care professionals.

TWEET @DominionPostWV

"GONE ARE THE DAYS **OF TRADITIONAL** CLASSES. WE HAVE TO MEET PEOPLE WHERE THEY ARE."

Dr. Krystal Atkinson Mon Health **Medical Center** chief administrative officer

MEDICAL CARE

Venous Thromboembolism Excellence Program at Mon Health Heart & Vascular Center

Mon Health System

Mon Health Heart & Vascular Center continues to prioritize the cardiac and vascular care of the communities it serves by participating in the Venous Thromboembolism Excellence Program with Inari Medical.

Venous Thromboembolism (VTE) is a condition that occurs when a blood clot forms in a vein, and it can include deep vein thrombosis and pulmonary embolism.



Dr. Wissam Gharib

leg, thigh or pelvis, and pulmonary embolism occurs when a blood clot breaks loose and travels through the bloodstream to the lungs.

deep vein,

usually in

the lower

The VTE Excellence Program is designed to expand

vein throm- and is meant to make a bosis occurs difference in patient identification, triage, treatment when and follow-up. blood clot "With our current techforms in a

nology, we are able to take a patient with a large pulmonary embolism and significantly elevated pulmonary artery pressure requiring significant amount of supplemental oxygen, to normal pressures and minimal to no oxygen supplementation in a very short period of time with a low risk, high gain

efforts to improve VTE care procedure," said Dr. Wisand is meant to make a sam Gharib, director of Structural Heart at Mon Health Heart and Vascular Center.

For patients with VTE, prompt treatment is essential to prevent serious complications. When VTE patients arrive in the Emergency Department, the program has established a clear way to identify and triage patients who should receive consultation, allowing for a quick and easy referral to

interventionalists. Once processes are in

place, Inari Medical assists in providing education for employees about the disease state, latest treatment options and follow-up protocol for the patient.

These efforts have resulted in a greater number of patients receiving treatment beyond conservative therapy improvement in patient outcomes, such as mortality and length of stay.

To learn more about Mon Health Heart & Vascular Center, visit MonHealth.com/Heart.

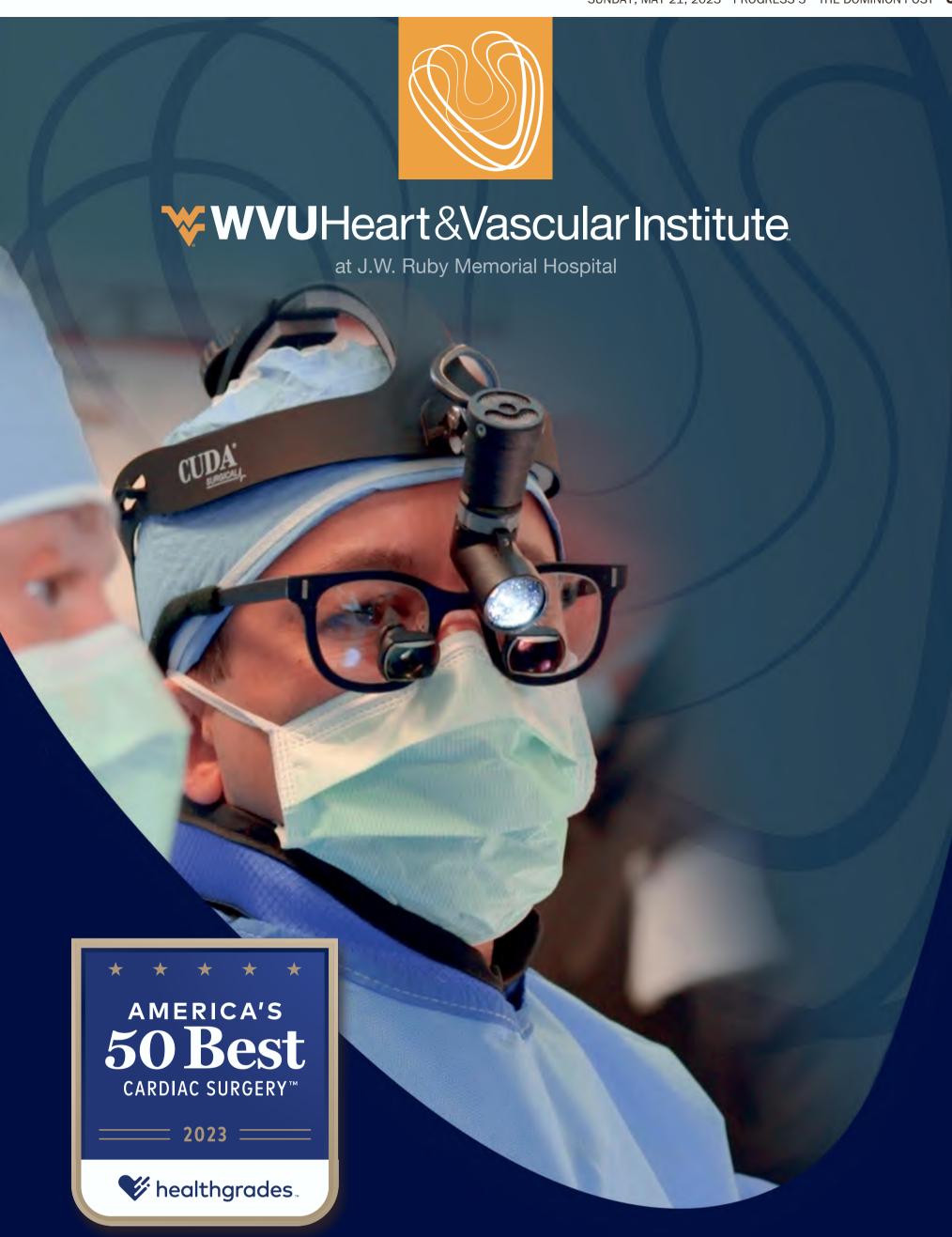
FOR PATIENTS WITH VTE, PROMPT TREATMENT IS **ESSENTIAL TO PREVENT SERIOUS** COMPLICATIONS. ... THE PROGRAM HAS **ESTABLISHED A CLEAR WAY TO IDENTIFY AND TRIAGE** PATIENTS ...



News tips

If you see breaking news or have a story sug gestion, email news room@ dominion post.com or call 304-291-9425

The Dominion Pest



Nationally Recognized Cardiac Care is Close to Home

- Named one of the 50 best hospitals for cardiac surgery in the United States by HealthGrades in 2023.
- Listed by HealthGrades in the Top 10% of cardiac surgery programs in 2023.
- Recipient of the Healthgrades 2023 Cardiac Surgery Excellence Award.
- HealthGrades Five-Star Recipient for Valve Surgery in 2023.
- HealthGrades Five-Star Recipient for Treatment of Heart Attack in 2023.
- HealthGrades Five-Star Recipient for Treatment of Heart Failure for 2 Years in a Row (2022-2023)

With superior clinical outcomes in heart bypass surgery and heart valve surgery, nationally ranked cardiac surgery is now closer than ever to your home.

Your heart care's a choice.

Choose the best.

To learn more, visit WVUMedicine.org/Cardiac

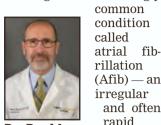
CARDIOLOGY

WVU Heart and Vascular Institute team tackles growing prevalence of Afib

BY DAVID BEARD

DBeard@DominionPost.com

Dr. David Schwartzman is part of the WVU Medicine cardiology team treating the increasingly



Schwartzman

(Afib) — an irregular and often rapid heart rhythm.

Schwartzman is director of Electrophysiology at the WVU Heart & Vascular Institute. Electrophysiologists specialize in dealing with the heart's electrical system and abnormal heart rhythms.

Afib, he said, can lead to symptoms such as shortsightedness, lightheadedness, heart fluttering, pain and fatigue. About a third of patients have no idea they're in Afib; others may have symptoms running from mild to crippling.

Age is a dominant factor leading to Afib, he said. Contributing issues include a genetic component ("It's subtle and not well quantified at this point."), high blood pressure, being overweight, sleep apnea and diabetes. With the aging population and the accompanying factors, Afib is growing in prevalence.

"There's no shortage of atrial fibrillation patients," he said.

To their knowledge, he said, Afib isn't directly life threatening. In some cases — not typically — it can cause the heart to get tired, a condition unfortunately termed heart failure.

When considering treatment, he said, they consider how Afib makes the patient feel and its relationship to possible stroke which is not common. Blood typically flows smoothly through the heart, but when the heart is in Afib, the blood gets churned up, which can predispose it to clotting and offer the potential for a clot to reach the brain and cause a stroke.

Those at stroke risk, he said, can take a blood thinner. For some, where blood thinners aren't an option, a Watchman implant can replace the medication and reduce stroke risk though the Watchman doesn't address the Afib itself.

There's no cure for Afib. Schwartzman said, but for patients interested in suppression, the team can bring a variety of modalities to the table.

One is medicines called rhythm control drugs. Another Schwartzman's specialty is catheter ablation. The catheters — about the width of a pen tip, are led up from the groin to the heart to either melt (radio frequency ablation) or freeze (cryoablation) the areas that typically cause the arrhythmia.

This procedure is low risk, with a reasonable success rate in the 70%-80% range for longterm suppression.

For a subset of those patients who experience a recurrence of Afib or for whom the disease is too



Submitted photo

WVU Heart and Vascular Institute.

severe to warrant catheterization, cardiac surgeons can directly access the heart for more extensive ablation.

The procedure is called the Cox Maze procedure, after its inventor, Dr. James Cox, and the name stems from making incisions in a maze-like pattern on the left and right atria — the heart's upper chambers. When the incisions heal, the resulting scar tissue blocks erratic electrical

impulses, Afib.org explains. The procedure went

through three incision-pattern iterations, with the third seeing a 97% success rate and becoming the gold standard for surgical treatment of atrial fibrillation, Afib.org says.

When Schwartzman talks with a patient, he said, he puts ablation and drugs on the table from the get go. Ablation is more successful in suppressing Afib without the side pretty agnostic when I talk to patients. I sort of lay out my entire tool kit and say this is what I've got."

He will try to offer some guidance based on his 30 years of experience, but he doesn't dictate their choice, he said.

One unique aspect of WVU HVI cardiology compared to other large centers, he said, is that the various specialists — elec-

trophysiologists, surgeons

effects of drugs. But, "I'm and others — work as a team and gel well.

> And they're always exploring newer and better approaches. "It's a constant, albeit glacially slow process of improvement."

> And with the ever-growing prevalence of Afib, "We're diligently trying to expand our footprint to serve the West Virginia market."

TWEET @dbeardtdp

WVU

Cancer Institute advances surgical oncology and patient support

BY KAITLYN EICHELBERGER Keichelberger@DominionPost.com

As an academic medical center, the WVU Cancer Institute strives not only for the betterment of its centers' operations, but breakthroughs for the state and health care industry as a whole.

the latest

collaboration

employees

and contin-

tute contin-

mission.

With

focused on

tailoring

patients'

circum-

ensuring

receives

treatments

stances and

each patient

educa-

the

Can-

Insti-

this

the

between

ued

tion,

cer

ues

tute

nearly 2,000 surgical pro-

cedures performed each

year, the WVU Cancer Insti-

highly specialized and com-

ment teams are a highlight

of this goal. Patients' cases

are carefully considered

and planned during weekly

meetings by a team of spe-

cialists, typically composed

Multidisciplinary treat-

WVU

Through research,



Boone

Partin

fortable care.

radiation oncologists, as well as providers of supportive care before and after treatment.

treatment plan, we have talked about it as a team and put all of our minds together to give the patient the most up-to-date and well-thought-out the patient."

advanced medical education providers their

next best discovery really makes a huge difference for the patients and also for our careers, because we ultimately want to improve patient outcomes," said Dr. Brian Boone, surgical oncologist and pancreatic cancer specialist.

The WVU Cancer Instiin the COMET study, a clinical trial comparing treat-

"Before we start the

plan," said Dr. Jessica Partin, surgical oncologist and breast cancer specialist. "That makes it more efficient for As part of the WVU Cancer Institute's objective to provide the latest and most treatment, employees continue their

attending conferences and educational programs and overall maintaining and strengthening their expertise and skills. In doing so, patients may also have access to the latest treatments and clinical trials have encountered in their continued education. "Knowing that we are always trying to look for the

tute recently participated



Submitted photo

WVU Cancer Institute.

ments and managements for DCIS, a noninvasive, and often over-treated, breast cancer. By participating in trials such as this, said Partin, the WVU Cancer Institute can offer treatment options that patients might not have access to otherwise.

"Having WVU as a part

of those discussions is very important, to make sure that we're recognized in the field and to make sure that we're keeping up with the latest of everything that's out there," said Boone.

The WVU Cancer Institute has furthered its multidisciplinary clinic approach to pancreatic can-

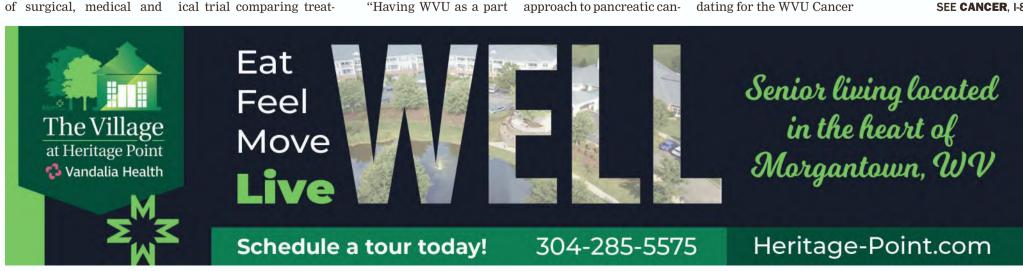
cer treatment, allowing patients to consult with a team of specialists in one visit rather than multiple appointments. This streamlines the treatment process and provides patients with specialized advice and care as soon as possible, which can be especially accommodating for the WVU Cancer

Institute's many out-ofstate patients.

In 2021, WVU Medicine's J.W. Ruby Memorial Hospital was designated by the National Pancreas Foundation as an NPF Center, as recognition of this multidisciplinary strategy.

A few years ago, Boone,

SEE CANCER, I-8





ENHANCING THE health OF OUR COMMUNITIES, ONE PERSON AT A TIME.



MONHEALTH.COM

MON HEALTH

Aquablation therapy new treatment for BPH

BY EVA MURPHY

Newsroom@DominionPost.com

According to the National Institutes Health, up to 70% of men over age 70 have a benign enlarged prostate, also known by the medical term benign prostatic hyperplasia, or BPH.

Even if noncancerous, an enlarged prostate may damage the bladder, urethra and bladder muscles. This causes symptoms of an increased urge to urinate, a weak urine stream and a sensation of bladder fullness even after voiding.

Until recently, the available treatments for BPH were limited to medication or a variety of surgical procedures that were associated with negative side effects. About five years ago, a new treatment called aquablation therapy began to gain traction in the medical community.

"Aquablation allows us to treat patients with various size and shape prostates in a minimally invasive manner," said Dr. Jaschar Shakuri-Rad, a Mon Health physician specializing in urology and robotic surgery. "It allows patients to get both maximum symptom relief while reducing side effects and for long-term allowing

The minimally invasive, FDA-approved procedure involves using a camera with ultrasound technology to assess the patient's anatomy and identify the areas that need to be treated. This surgical map



Dr. Jaschar Shakuri-Rad, a Mon Health physician specializing in urology and robotic surgery, prepares for an aquablation procedure.

also guides the surgeon away from areas that, if damaged, could cause irrevocable complications like incontinence and erectile dysfunction.

After the mapping is complete, the surgeon uses a robotically controlled, heat-free

remove excess prostate tissue. This is done while the patient is under anesthesia, and the entire procedure takes about an hour. Aquablation requires overnight hospital stay and a brief catheterization.

Shakuri-Rad emphawaterjet to sized that early treatment intervention leads to us

for BPH is key.

"The bladder is a storage vessel," he explained. "If the bladder can't empty properly due to blockage by prostate tissue, it can get damaged. Once the disease happens, we may not be able to reverse it. Early

preserving health instead of treating disease."

Facilities that offer aquablation therapy are rare. Shakuri-Rad advocated for bringing the procedure to Mon Health.

"I want our patients to be able to be treated locally, in a place they are comfortable with," he said.

He and his partners received specialized training in the procedure, then began to offer it as an option to patients in 2022. Currently, Mon Health is the only medical facility in the region offering the procedure.

"Now, instead of our patients having to travel out of West Virginia for treatment, we have patients traveling into West Virginia from Pennsylvania and other states," he said.

Upwards of 40 patients have been treated using aquablation at Mon

"I am happy to report that all of them have done excellently," said Shakuri-Rad. "This technology, as well as others we offer at our facility, translates into better patient care, better outcomes and reduced health care costs. "It's a great thing for our area."

TWEET @DominionPostWV

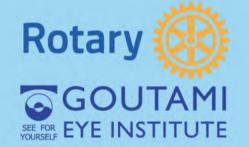
"AQUABLATION **ALLOWS US TO TREAT** PATIENTS WITH **VARIOUS SIZE AND** SHAPE PROSTATES IN A MINIMALLY INVASIVE MANNER."

Dr. Jaschar Shakuri-Rad Mon Health physician specializing in urology and robotic surgery

Get local news and sports in The Dominion Post or online at DominionPost.com



A World Without Childhood Blindness









1.1 billion people on the planet cannot afford or do not have access to a vision screening for treatment. 826 million just need a pair of glasses. (WHO)

JOIN US IN ENDING AVOIDABLE BLINDNESS AROUND THE WORLD.





265 Spruce Street, Morgantown, WV 26505 www.morgantownpartnership.com

Celebrating **ONE BUSINESS** AT A TIME

GRANT MONEY

WVU strengthens underserved health care workforce

Health Sciences

West Virginia Area Health Education Centers (WV AHEC) continue to enhance education and training networks within communities, academic institutions and community-based organizations thanks to a five-year, \$1,442,500 per year grant renewal.

The grant, awarded by Health Resources & Services Administration, an agency of the United States Department of Health and Human Services, supports five centers located throughout the northern, eastern, southern, southeastern and central regions of the state.

Working closely with the Institute for Community and Rural Health and implemented through the West Virginia University School of Medicine, WV AHEC seeks to increase diversity among health professionals, broaden the distribution of the health

workforce, enhance health care quality and improve health care delivery to rural and medically underserved areas and populations.

"The overarching goals of the West Virginia Area Health Education Centers include diversity, distribution and practice transformation," Jessica Stidham, Rural Community Health Scholars program manager, said. "Working toward these goals, the grant supports the Rural Community Health Scholars program, community-based experiential training, interprofessional education and pipeline programming that serves West Virginians through the development and maintenance of a health care workforce that is prepared to deliver high quality care in a changing health care delivery system."

WV AHEC currently serves high school students interested in health profes-

SEE GRANT, I-11



Submitted photo

West Virginia Area Health Education Centers continue to enhance education and training networks within communities, academic institutions and community-based organizations thanks to a five-year, \$1,442,500 per year grant renewal.



Encompass Health

Rehabilitation Hospital

of Morgantown

May is Stroke Awareness Month

The Joint Commission Disease-Specific Care Certification in Stroke Rehabilitation

- Treatment of Orthopedic Injuries
- Aquatic Therapy
 Stroke Recovery
- · Parkinson's Rehabilitation & Support Group
- Pulmonary/Cardiac Rehabilitation
- Inpatient Pediatric Therapy
- Lymphedema
- Physical, Occupational & Speech Therapy







1160 Van Voorhis Road • Morgantown, WV 26505 304-598-1100

encompasshealth.com

CANCER

FROM PAGE I-4

alongside fellow cancer surgeon Dr. Carl Schmidt, developed the state's first robotic surgery program for pancreatic cancer. Since then, the procedure has advanced and grown more accessible to a wider range of patients.

"We're definitely increasing the implementation and utilization of the robotic approach," said Boone. "We're pushing the boundaries in terms of when we can safely remove tumors with the robot and starting to make that option available to more patients."

Following the institute's other widely successful screening programs, like Bonnie's Bus and LUCAS, Boone said the WVU Can-

cer Institute's research lab is conducting pre-clinical research into methods of catching pancreatic cancer earlier. One method he finds most promising is a blood test measuring tumor DNA.

"It's something we hope to be able to roll out in the future," said Boone. "I think West Virginia would be the ideal state to do that because it is so rural, we can really reach patients that otherwise would not have access to that care."

With some projects in their final stages and others ongoing or in development, the WVU Cancer Institute is prepared for another year of establishing more efficient, accessible cancer treatment in West Virginia.

TWEET @DominionPostWV

"BEFORE WE START THE TREATMENT PLAN, WE HAVE TALKED ABOUT IT AS A TEAM AND PUT ALL OF OUR MINDS TOGETHER TO GIVE THE PATIENT THE MOST UP-TO-DATE AND WELL-THOUGHT-OUT PLAN. THAT MAKES IT MORE EFFICIENT FOR THE PATIENT."

Dr. Jessica Partin surgical oncologist and breast cancer specialist

Promote your employees

Have you recently hired a new employee or promoted a valued one? Let us know so we can share the information with the community.

Send press releases and photos to newsroom@dominionpost.com Questions: 304-291-9425

The Dominion Pest.



Just minutes from I-68, Downtown Morgantown and the Wharf District

Grant will help partners bring more bikes to those with disabilities in West Virginia

BY JIM BISSETT

JBissett@DominionPost.com

To the outdoors enthusiast, West Virginia really is Almost Heaven.

After all, the Mountain State does offer mile after mile of sweeping trails, right out of the drone shot on the tourism video.

Rustic arteries that skirt the ridgetops and duck into the valleys — only to reveal stunning vistas when least expected.

Terrain that is tough and terrain that is gentle, with all kinds of appealing variations thereof.

However, there is a thumbprint on the lens, as it were.

While it is open and available to all — those with

Jack Black

EUROPEAN SOAPS, LLC

other mobility issues can't always get there from here.

The West Virginia Assistive Technology System at WVU's Center for Excellence in Disabilities, however, is about to lean into the logistics of that challenge.

The project is called "Adventure is for Everyone," and its goal is to make adaptive-technology bicycles available to people who are paralyzed but still want to ride West Virginia, in the dirt-path direction.

A grant from the Christopher & Diana Reeve Foundation National Paralysis Resource Center is making such accessibility possible.

It will help the West Virginia Assistive Technology System — or WVATS, as it

spinal cord injuries and is known in the field bankroll the cost of new or refurbished bikes, which are pricey, Doug Cumpston

> Cumpston is the WVATS principal investigator and program director who wrote the grant.

> The bikes, with their hand-pedal features and other adaptations, can generate some sticker shock when one goes looking for a purchase.

> And some models, the program manager said, can run around \$10,000 — and that's on the low end.

> "That's too expensive," Cumpston said, "and they likely aren't covered by insurance."

WVATS is partnering with Wamsley Cycles of

ROMATIQUE"

CASWELL-MASSEY

Morgantown and the Challenged Athletes of West Virginia at Snowshoe Mountain Resort for the venture.

The latter has long worked with the Pocahontas County ski destination to make adaptive winter sports a regular part of its proceedings, Cumpston said.

"You have a lot of families in West Virginia who build their vacations around ski trips or hiking and biking excursions," he

"If someone in your family is a wheelchair user," he said, "that can mean they're left watching, while everyone else is out there having fun."

It's particularly sad, he said, if that family member

Seneca Center

Monday~Saturday 10-5

Fall/Winter Ladies Apparel

304-413-2800

70% OFF

was an accident victim, or had a sudden onset of an illness that changed their mobility.

"Then. they reminded again," he said. "They get reminded of what was taken away," he

continued. "It's like, 'Well, here's what I can't do. I can't ride bikes with my brothers and sisters. I can't do anything

but be in this chair.'

With racks of new or refurbished adaptive bikes soon to be housed and available for the borrowing at Snowshoe — Cumpston wants to get rolling by June - the adventure, as the project name says, really will be for everyone.

Move United, an out-

is a child or a teenager who reach organization associated with the U.S. Olympic and Paralympic Committee, likes to tout the competitive aspects of handcycling and its technology that has been around since the 1980s.

Once an athlete, always an athlete, the organization said, even if your mobility has changed.

While Cumpston wants people to enjoy the accessibility such machines will bring through the project — he also said he wouldn't mind seeing some Paralympians from West Virginia on the medal podium, sometime down the trail.

"Hey, wouldn't that be something? We'll take it."

TWEET @DominionPostWV





THYMES







WVU

Engineer earns \$1.2 million to revolutionize detection, diagnosis of tick-borne diseases

WVU Today

A team led by a West Virginia University biomedical engineer is working to ramp up and reimagine how medical professionals diagnose tick-borne infections such as Lyme disease.

Soumya Srivastava, assistant professor at the Benjamin M. Statler College of Engineering and Mineral Resources, is developing a tool that more quickly detects tick-borne diseases via a blood sample on a single chip. Srivastava's model aims to detect disease within one to two weeks after the onset of an infection, whereas existing approaches rely on a symptom-based questionnaire which might ask if a person has a fever or a rash — and tests that aren't reliable until at least a few weeks after infection.

Srivastava's project was awarded \$1.2 million as a joint initiative between the National Science Foundation and the National Institutes of Health.

Tick-borne pathogens can be passed to humans by the bite of infected ticks. Those ticks can carry bacteria, viruses or parasites. Srivastava's efforts could produce a much-needed tool in the fight against tick-borne illnesses, which have ballooned in recent years. Lyme disease cases

now hover around 30,000 a year in the U.S., up from 22,000 in 2010, according to the Centers for Disease Control and Prevention.

"Tick-borne disease can lead to serious morbidity and mortality, and it has increased significantly in the last 15-20 years in the U.S.," Srivastava said. "This project will create a rapid, sensitive and labelfree diagnostic tool to improve early detection and their co-infections in order to reduce complications and death from undiagnosed and late-diagnosed disease."

Srivastava's research involves cross-disciplinary use of microfluidics, sensors and machine-learning. Those factors will enable improved diagnosis of tickborne infections via a noninvasive, affordable, quick and user-friendly tool.

After collecting a blood sample from a patient, the tool will analyze the cells. All cells have a set of dielectric properties like permittivity and conductivity that are unique for cell membrane and cell cytoplasm, Srivastava explained. Those properties are heavily dependent on the state of the cell, such as whether it is normal or abnormal.

The unique properties depend on the shape and size of the cell; if the membrane is rough, smooth or leaky; and what is happen-

W/VII nhot

Students Negar Farhang Doost, Christopher Smith and Emma Walker work with Soumya Srivastava, WVU Banjamin M. Statler College of Engineering and Mineral Resources assistant professor, to conduct research on tick-borne disease testing.

ing within the cell interior.

"We basically are measuring these properties on our microfluidic chip," she said, "and the electrical signal coming from the sensor will help us determine if there is an infection or not. This technique is known as dielectrophoresis."

Once a few drops of blood enter the device, an electric field will sort them based on the state, size and shape of the cells. The sorted cells will have a baseline value of capacitance that will show up by the sensor and thus we can conclude the type of infection, Srivastava said.

"Machine-learning is applied to make this tool robust and sensitive to detect multiple infections within a few minutes."

What makes the project more unique is its ability to detect multiple tick-borne infections at once and in a timely fashion.

"Additionally, our platform will detect anaplasmosis, babesiosis and Lyme disease at an early stage noninvasively compared to the other available techniques that test four to six weeks after the development of infection," Srivastava said. "Most tests available currently are symptom-based, and symptoms develop four to six weeks after a tick bite. Our platform can detect these diseases early on, within one to two weeks, in under 30 minutes using a portable diagnostic tool. If successful, this tool may be useful for a variety of health

"TICK-BORNE DISEASE CAN LEAD TO SERIOUS **MORBIDITY AND** MORTALITY, AND IT HAS INCREASED SIGNIFICANTLY IN THE LAST 15-20 YEARS IN THE U.S. THIS PROJECT WILL CREATE A RAPID, SENSITIVE AND LABEL-FREE DIAGNOSTIC TOOL TO **IMPROVE EARLY DETECTION AND THEIR CO-INFECTIONS IN** ORDER TO REDUCE **COMPLICATIONS AND DEATH FROM UNDIAGNOSED AND** LATE-DIAGNOSED DISEASE."

Soumya Srivastava WVU Banjamin M. Statler College of Engineering and Mineral Resources assistant professor

applications beyond tickborne diseases.

"Rapid detection could reduce the risk of hospitalization, doctor's visits and prevent the disease from progressing into a chronic, life-long condition."















Eye institute continues expansion via satellite sites

BY LINDSEY FLEMING

Newsroom@DominionPost.com

Bringing one physician to a couple dozen patients in a day makes more sense than having 20 or 30 patients and their families make the trek to Morgantown from across the state, especially given West Virginia's rural population.

That's the logic behind WVU Eye Institute's continued expansion in the form of satellite sites in the region, the latest of which opened in April in Wheeling, said Dr. Ghassan Ghorayeb, vice chair of clinical affairs and vitreoretinal fellowship director.

"It's a win-win," he said. "We're busy in Morgantown and with the physical space, there's a constraint there. Also, there's a demand, and we have the capabilities and man- and woman-power to meet it."

The first site opened in Bridgeport at United Hospital Center. Since then, in addition to Wheeling, clinics have opened in Buckhannon, Summersville and Waynesburg, Pa. Plans are in the works to add Uniontown, Pa., to the list.

"We're following WVU's lead overall," Ghorayeb said. "It makes sense to offer services wherever they're present."

It also makes sense as demand for the array of eye health services the institute provides increased.

"It's grown quite a bit in the four years I've been here," said Dr. Thomas Mauger, who chairs WVU's Department of Ophthalmology and Visual Sciences.

Ophthalmology, he added, deals with many age-related diseases and as the state's population skews older, it follows that doctors see a more-thanaverage number of patients with issues such as macular degeneration, glaucoma and diabetes-related illnesses. In fact, according to the West Virginia Department of Health and Human Resources, "more than 1 in 10 West Virginia adults had diabetes, which ranked West Virginia the second highest nationally." In the state, the prevalence of the disease is highest



The addition of two new pieces of ophthalmic training equipment provides West Virginia University Department of Ophthalmology and Visual Sciences residents with the opportunity to receive hands-on training experience prior to working in the operating room. Using funds secured from donors, the department was able to purchase a brand-new EyeSi surgical simulator (pictured) and Alcon operating microscope in 2022, which were both installed in the WVU Eye Institute's simulation lab in December.

among those 65 and older. And a variety of factors, such as transportation challenges as well as educational and economic issues, means that 64% of West Virginians with diabetes are at risk for blindness, according to a WVU case study.

In an effort to identify and improve outcomes related to diabetic retinopathy — an eye condition that can cause vision loss and blindness in those with diabetes — the eye institute, in partnership with a network of health care providers, introduced

telemedicine screening program at primary care and academic sites across the state. "It will give us a lot of

really important data,"

Mauger said. Ghorayeb added that with the successful purchase and implementation of several expensive cameras, providers can now capture ultrawide-scale photos of the retina and export those images through the telemedicine system, where ophthalmologists and spe-

cialists at the institute can

then interpret the images

and deliver results and rec-

ommendations to primary care providers. This can all happen in the span of

"This is something we started about five years ago, but over the last year we've really been able to develop it to another level. With more cameras, we've been able to exponentially grow," Ghorayeb said, citing Mauger and Dr. L. Carol Laxson, director of WVU's diabetic retinopathy program, as key contributors. "It's all done digitally and integrated with an AI model that aids in diagnosis and improves the quality of the image."

"Access is a big problem in West Virginia," Mauger said. "With the rural nature of the state, people have to drive a long way for care sometimes, so anything that we can do to improve that and catch these kinds of things earlier, that's our goal.'

As the telemedicine program demonstrates, technology is integral to helping solve the issue of access. And not just for patients.

Ghorayeb remembers a time when the only way for residents and fellows to

work on their skills in the operating room was in wet labs. While these labs which allow trainees to practice surgical techniques on the eyes of mammals such as cows and pigs — remain an important part of students' education, they now have access to the latest equipment that allows them to more closely mimic what they'll expe-

In December, the institute installed a new EyeSi surgical simulator and Alcon operating microscope in its simulation lab.

rience the first time they

operate on a patient.

According to a release, the virtual simulator "allows trainees to practice delicate surgical procedures such as cataract and retina surgery from the safety and comfort of a simulation lab prior to conducting surgeries on patients." the microscope installed is the same as one used daily by ophthalmologists at the institute for various procedures.

"Now, you can work for hours and hours going over different scenarios," Ghorayeb said. "The tactile response is remarkably close to surgeries you'll do, and it gives you feedback on what you're doing right and wrong. ... It gives residents starting out much more confidence."

Mauger added that the surgical simulator, which replaces an older model in the lab, is "very user friendly for residents, fellows and faculty."

Such upgrades make Mauger's job easier when it comes to recruiting.

"We're recruiting people in every sub-specialty," he said. "We've added a lot of faculty and increased research as well."

Ghorayeb said that WVU "leads the pack in terms of research for a department of its size.

The vision research at the institute is divided into two categories — basic sciences and clinical care. Ghoraveb said the institute is the only center in West Virginia that enrolls patients in clinical trials, giving them the opportunity to receive new treatments before they become widely available to the public.

For instance, in March, the institute announced that a clinical trial it conducted for the use of EYE-LEA, an injection medication, led to FDA approval the treatment of retinopathy of prematurity.

This means the medication is an option for infants born with the condition in which abnormal vessels grow in the retina. Depending on the severity of the retinopathy, the issue may resolve on its own or require intervention to prevent significant vision impairment or blindness.

"We do a lot of clinical trials for diabetic retinopathy, macular degeneration and other retinal diseases," Ghorayeb said.

With all of the ways the institute continues to grow to accommodate the needs of the region, Mauger said plans are being discussed to upgrade the main hub in Morgantown.

"The facility we're in was built a little more than 20 years ago," he said. "It's fabulous, but we're outgrowing it. We need more space. I think being efficient takes having enough space."

"The demand is so large that it necessitates the expansion of the footprint," added Ghorayeb. "We're continuing to discuss options with WVU leadership."

Ideally, he said, officials are looking to accommodate three things: more surgeons and physicians, operfacilities ating research space.

There are two or three options being considered. And planning is still in the preliminary phase.

"We're lucky," he said. "This is an environment where people understand that we have a responsibility to give the best care we can."

TWEET @DominionPostWV

"WE'RE FOLLOWING WVU'S LEAD OVERALL. IT MAKES SENSE TO **OFFER SERVICES** WHEREVER THEY'RE PRESENT."

Dr. Ghassan Ghorayeb Vice chair of clinical affairs and vitreoretinal fellowship director

GRANT

FROM PAGE I-8

sions, college students enrolled in health professions programs and working health professionals in 50 of the state's 55 counties.

"By growing and nurturing our workforce, West Virginia residents will benefit from an increase in access to care from providers who truly understand their local community," Stidham said.

The Rural Community Health Scholars program

helps prepare individuals to work in rural and underserved communities by providing supplemental educational opportunities focused on social determinants of health, cultural competency, virtual learning and telehealth, behavioral health integration and practice transformation, interprofessional education, connecting communities and supporting health professionals and current and

emerging health issues. Health professions students at institutions throughout the state enrolled in a variety of degree programs, including medicine, nursing, dentistry, psychology, pharmacy and public health, benefit from the WV AHEC Rural Community Health Scholars program's didactic and community-based experiential training activities. They also have the opportunity to participate in interprofessional training activities through community health initiatives. For

high school students interested in health careers, WV AHEC provides pipeline activities such as career shadowing and presentations. Continuing education opportunities are also available for practicing health

professionals. "Participating in this programming provides a foundation for WVU health professions students to not only critically assess the needs of rural populations in West Virginia, but also see how they can work

together as an interprofessional team to mitigate the barriers to health care facing our communities and create change for West Virginians," Stidham said. "I believe I am a well-

rounded physician because of the Rural Community Health Scholars program," Dimitri Tito, D.O., a WV AHEC Rural Community Health Scholars program alumnus, said. "I was born in a suburb of Douala, Cameroon, which is where my passion for rural

LIGHTNING-FAST

medicine started. I joined the program to equip myself with skills and interprofessional education experiences necessary to practice in rural areas, and this program has prepared me to view populations I serve through a culturally-appropriate lens."

WV AHEC SEEKS TO **IMPROVE HEALTH CARE DELIVERY TO RURAL** POPULATIONS.

Want to see your news in The Dominion Post?

Let us know what's going on with your business, club or team.

Email news tips, photos or press releases to newsroom@dominionpost.com

Questions: 304-291-9425

Or talk to an editor — **Editor Pam Queen: 304-291-9433 Managing Editor** Katie McDowell: 304-291-9434

Sports Editor: Cody Nespor: 304-291-9410



MON HEALTH

Breaking barriers and driving change

Women in leadership

Mon Health System

As the health care industry continues to evolve and face new challenges, women are playing an increasingly critical role in shaping its future.

Mon Health System celebrates the trailblazing women who lead the organization in driving innovation and improving patient outcomes.

Mon Health System is at a unique point in the organization's history, with a majority of its leadership maintained women. These women help empower a wide range of individuals, including employees, physicians and nurses, to become the leaders of tomorrow.

As chief nursing executive at Mon Health System and chief administrative officer at Mon Health Medical Center, Dr. Krystal Atkinson has made a significant impact on elevatnursing practices, ensuring the safety of staff and patients through COVID-19, nurturing essential relationships with providers and community members, expanding the graduate nursing pipeline by implementing the Mon Scholars Program and, most recently, the partnership with the West Virginia Junior College School of Nursing at Mon Health.

Katie Davison, chief Human Resources officer at Mon Health System, has recentered recruiting efforts, standardized policies and procedures and continues to keep the organization focused on its cul-



Top row from left: Victoria Jones, CEO, Highland-Clarksburg Hospital, an affiliate of Mon Health; Katie Davison, chief Human Resources officer, Mon Health System; Dr. Krystal Atkinson, chief nursing executive, Mon Health System and chief administrative officer, Mon Health Medical Center: Melissa Lockwood, chief administrative officer, Mon Health Preston Memorial Hospital and Grafton City Hospital. Bottom row from left: Karen Friggens, vice president, Mon Health Medical Group; Wilma Sternthal, executive director, The Village at Heritage Point; Luella Gunter, executive director of Philanthropy, Mon Health System; Dr. Mary Edwards, chief medical officer, Mon Health System and vice president of Medical Affairs, Mon Health Medical Center; Candice Powers, chief Revenue Cycle officer, Mon Health System.

ture and people. She led the system in hiring more than 830 employees throughout 2022. Davison was also appointed to the Leadership West Virginia's 2023 class to represent Mon Health System across the state.

Melissa Lockwood currently serves as both Mon Health Preston Memorial Hospital's and Grafton City Hospital's chief administrative officer. Since starting at Preston Memorial Hospital in 1995, she has helped make significant strides in hospital quality and operations, including the opening of the new facility in 2015 and, most

recently, the addition of a Chemotherapy Infusion Center in Preston County.

Candice Powers, chief

Revenue Cycle officer at Mon Health System since 2018, oversees revenue cycle operations and system integration. She has helped to standardize the Pre-Access Service Center, which encompasses workflow management, pre-registration, authorization and scheduling patients. She also assisted Mon Health Medical Center in earning recognition as a Best Practices Adopter for Patient Financial Commu-

Victoria Jones serves as the CEO of Highland-Clarks-

burg Hospital, a nonprofit mental health hospital and affiliate of Mon Health System in Clarksburg. Jones has led the hospital since 2018 and works collaboratively to provide the highest quality, most comprehensive behavioral health ser-

vices in Harrison County. As chief medical officer at Mon Health System and vice president of Medical Affairs at Mon Health Medical Center, Dr. Mary Edwards leads system coordination of hospitalbased medical affairs and Mon Health Medical Cen-

ter clinical affairs.

Wilma Sternthal, executive director of The Village at Heritage Point, led the independent and assisted living community through the COVID-19 pandemic and kept residents safe while maintaining their independence and happiness.

Luella Gunter, executive director of Philanthropy at Mon Health System, serves as the primary strategist for system advancement through fundraising and stewardship efforts. Gunter helped to raise \$4.2 million last year, with \$500,000 going toward the Progressing Through Postpartum

Program (P3) during the 2022 Mon Health Medical Center Auxiliary Ball of the Year. She is already working on the event for 2023.

Karen Friggens serves as the vice president of Mon Health Medical Group. With Friggens' direction and strategic leadership, Mon Health System is dedicated to being a providerled care team to better serve our communities with greater access to health care and improved patient outcomes.

In addition to the influential women serving in leadership roles at the hospital level, Mon Health System's Board of Directors also benefits from the knowledge and contributions of female leadership.

Kimberly Moyers serves as board chair and Natalie Stone as vice chair at Mon Health Medical Center, with Kathy McNeill as vice chair at Mon Health System. Stephanie Stovash is vice chair for the Mon Health Medical Center Foundation, Robin Poling is board chair at Mon Health Stonewall Jackson Memorial Hospital and Trella Greaser is board chair for the Mon Health Preston Memorial Hospital Foundation.

Mon Health System is an integrated network of physician clinics, outpatient centers and hospitals in north-central West Virginia. It includes five hospitals — its flagship, Mon Health Medical Center in Morgantown; Mon Health Preston Memorial Hospital in Kingwood; Mon Health Stonewall Jackson Memorial Hospital in Weston; Mon Health Marion Neighborhood Hospital in White Hall; and affiliate, Grafton City Hospital in Grafton.

Monongalia County Child Advocacy Center

Providing The Help We Need.

Empowering traumatized children by building resiliency and restoring hope.

Help Us Help Them.



Donate Today



We help children who have suffered from abuse, neglect, or who have experienced other adverse childhood experiences (ACEs).

Your donation helps children receive resiliency building services at no cost to the client or their families at MCCAC: forensic services, interviews, therapy, and advocacy services.

> For information call 304-598-0344



909 Green Bag Road Morgantown, WV 26508 moncocac@comcast.net • moncocac.org



MEDICAL EDUCATION

Concord to receive funding for physician assistant program

CHARLES BOOTHE

Bluefield Daily Telegraph (TNS)

BLUEFIELD — Anyone interested in becoming a physician assistant will soon have the opportunity at Concord University.

Sen. Shelley Moore Capito, R-W.Va., announced recently that Concord will receive \$1 million for the new program, with funding through a Congressionally Directed Spending (CDS) request made and secured solely by Capito.

"Concord University continues to be an educational leader in southern West Virginia, and the addition of a physician assistant degree program will serve to increase opportunities available to students and further the reach of the university," she said. "I'm confident that this funding will help strengthen our future health care workforce and systems, as well as the level of care available to West Virginians."

Capito said the program

will help the university and rently exist. I am so pleased the communities. "I'm thrilled to deliver

this support on behalf of all of the hard-working administrators, staff and students in Athens, and I look forward to seeing the program make a positive impact on our communities," she said.

Concord President Kendra S. Boggess said Capito was also instrumental in getting funding to start a nursing program.

"Concord University is so very thankful for the support Sen. Capito has shown by securing funding to start a Physician Assistant program," Boggess said in the announcement. "The senator's past support also made it possible for Concord to begin a nursing program. Together, these programs will allow Concord University to offer programs our students want while also providing qualified health care providers in the state and region to fill the shortages that curand thankful for Sen. Capito's diligence."

Initiatives were made after the onset of the pandemic to enhance medical training programs when a shortage of nurses and other health professionals became a national problem.

Last year, Concord started laccepting students into the university's first nursing program for the 2023 spring semester.

Three different nursing tracks are offered: fouryear traditional bachelor of science degree in nursing (BSN), a BSN after obtaining a bachelor's degree in another field and an online RN (registered nurse) to

Capito had previously announced that Concord would receive \$1.6 million to support the renovation of existing facilities at Concord's main campus to provide a permanent home for their new school of professional nursing.

Promote your employees

Have you recently hired a new employee or promoted a valued

Let us know so we can share the information with the community. Send press releases and photos to newsroom@dominionpost.com **Questions: 304-291-9425**

The Dominion Pest.

Intermed continues its mission to advance MedTech innovations created and developed in West Virginia

BY DAVID BEARD

DBeard@DominionPost.com

Morgantown's Intermed Labs is forging ahead in its mission to bring West Virginia-born-and-bred medical technology to the nation and the world.

"We've been really busy. I feel like we've had a lot of success," said CEO Dr. Tom McClellan. "I feel that what we've done has been remarkable in West Virginia."

Intermed is a MedTech innovation lab and startup studio and serves as the innovation arm for its partner, Mon Health.

This kind of operation doesn't exist in many places, McClellan said. "Very few people are doing what we're doing from a startup perspective." It's a testament to Mon Health's backing and the industrious people associated with the company.

Looking at some of their startups, McClellan said the Viking Needle suture device for arthroscopic surgery is in final negotiations and close to signing a term sheet with a German multinational company.

It will take a few years for the German manufacturer to scale up the advanced prototype and manufacture it for the market, but, "I think it will be very big," he said. And it reflects relatively young (it partnered with Mon Health in 2020) Intermed's reach across the pond.

The SNAPS eye shield it protects the eye after surgery (we did a full story on it last August) — just started going on sale. They have a contract to service 5,000 hospitals, with 3,000 SNAPS on a back table in their HQ on the top floor of Building 3000 in the Mon Health Medical Park ready to ship out.

They will soon be working on trying to exit SNAPS — meaning sell it to a bigger company.

their 3D-Fingy3D, printed prosthetic for amputated fingers, was just accepted by a major MedTech accelerator dedicated to accelerating MedTech company growth. They were one of the top 50 of more than 2.000 applicants worldwide and the top among plastic

surgery applicants.

They'll be in the program for six months, he said, and in the fall will go to California to compete for \$500,000 in non-dilutive capital — money that doesn't require surrendering a portion of equity or ownership. (Think the opposite of Shark Tank.) And they just got a \$100,000 Benedum grant to provide 1,000 free Fingys to West Virginia patients.

The MOODR platform, for post-partum depression, arose from a Cabin Creek psychiatrist who was using Fitbits to monitor data on patients with depression. McClellan said he learned about it through a conversation and realized it could be made into something bigger.

It is the first-of-its-kind platform to monitor moms pre- and post-partum, tracking such things as sleep patterns. It will help the doctor see data trends not visible during just occasional visits. It's been approved by the Institutional Review Board and they will start using it on patients soon.

"Our goal with the MOODR platform is to create the gold standard in post-partum depression monitoring," he said.

Their next startup is a rib brace. The original idea was to build a model of the chest that would move with a cycle of breathing, that they could overlay the brace on to perfect a design. One funding application failed so they decided to build it themselves.

It's modeled on a human thorax based on an MRI scan and encased in silicone to represent muscles and soft tissue. It operates on a cycled motor with proprietary programming to simulate all kinds of breathing and coughing, and they can build any fracture they want into the ribs. This allows them to build a variety of braces to put on a fracture and see which works best.

"It is incredibly sexy and the math behind it is incredible. Nothing exists like it on the market," he said. The model recently won first prize in the trauma competition at the West Virginia American College of Surgeons meeting.



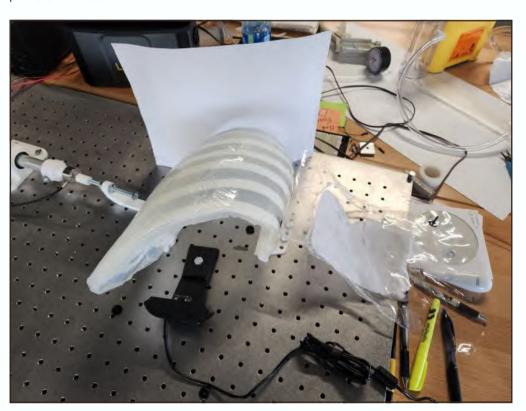
Intermed CEO Tom McClellan shows the new rib brace invention (on the table) and holds examples of Fingy and SNAPS in his hands. Below, a close-up of the rib brace.

SNAPS, Fingy, the Octopus (a rib stabilizer) and Endolumik's Gastric Calibration Tube all have a trove of awards, and Intermed has doctors signing non-disclosure agreements to bring ideas to

Intermed provides a venue, he said, for doctors and nurses across the state to develop their ideas. "A very simple idea can improve the economy of West Virginia."

McClellan said, "It's so awesome that this exists in Morgantown. I believe Intermed Labs is doing exactly what we said we were going to do. ... Overall, I'm terribly excited, and I think West Virginians should be excited."

TWEET @dbeardtdp



SNAPS, FINGY, THE OCTOPUS (A RIB STABILIZER) AND ENDOLUMIK'S GASTRIC CALIBRATION TUBE ALL HAVE A TROVE OF AWARDS, AND INTERMED HAS DOCTORS SIGNING NON-DISCLOSURE AGREEMENTS TO BRING IDEAS TO THEM. INTERMED PROVIDES A VENUE, DR. TOM MCCLELLAN SAID, FOR DOCTORS AND NURSES ACROSS THE STATE TO DEVELOP THEIR IDEAS.

RESEARCH

Science institute awarded \$20 million funding renewal

Addresses state's pressing health challenges

WVU Today

For a third time, the West Virginia Clinical and Translational Science (WVCTSI) Institute received a \$20 million, fivegrant awarded through the National Institutes of Health's Institutional Development for Clinical and Translational Research program to support research aimed at improving health outcomes in West Virginia, historically among the worst in the nation. An additional \$251,843 was awarded to allow expansion of office and conference space for the Clinical Trials Center of Excellence.

With the new IDeA-CTR award, WVCTSI will offer innovative pilot project awards as seed money to establish new research and will broaden its many investigator development programs to include a research academy for subspecialty fellows in training. Other new initiatives include statewide expansion of the Clinical Trials Center of Excellence and expanded data analytics resources that include a high-performance computing system and specialized tools for geospatial analyses. Also planned is the establishment of an implementation science center to maximize practical appli-

cation of relevant research findings.

"I am very pleased that this funding is coming to West Virginia to support continued research that is relevant to the people of the state," said Dr. Sally Hodder, WVCTSI director, associate vice president for clinical and translational science and Chancellor's Preeminent Scholar Chair at West Virginia University. "This funding will build on our foundation of success strengthening our research infrastructure and the critical collaborative work with our partners and with West Virginia communities to positively impact health in the state and surrounding areas."

Critically important to that mission is the statewide partnerships that include Berkeley Med-Center, Charleston Medical Center, Department of Veterans Affairs facilities in Clarksburg, Huntington and Martinsburg, Marshall University, National Institute for Occupational Safety and Health, West Virginia Department of Health and Human Resources, West Virginia School of Osteopathic Medicine, WVU (including regional campuses in Charleston and Martinsburg) and the WVU Health System.

Equally important is the outreach to West communities Virginia through the WVCTSI Practice-Based Research Network with 129 sites throughout the state and

the WVCTSI Project ECHO program, offering programs in multiple subject areas (e.g., hepatitis C) to primary care physicians in 48 West Virginia counties and 20 other states.

"Having WVCTSI funding renewed by the National Institutes Health for another five years is very exciting news," said Gary Rankin, Ph.D., WVCTSI associate director and director of the Clinical and Translational Pilot Grants Program and vice dean for Basic Sciences, professor and chair of Biomedical Sciences at Marshall University's Joan C. Edwards School of Medicine. "WVCTSI is doing remarkable work to better the health and wellbeing of West Virginians.

This award allows a strong statewide team of physicians, basic scientists and other translational faculty and staff to continue their efforts to improve the health of all our citizens."

Over the past five-year grant cycle, WVCTSI expanded the scale and rigor of research, contributing resources and expertise that resulted in 1,491 publications 951 fundapplications, external funding awards totaling \$172.5 million brought into the state.

During the COVID-19 pandemic, WVCTSI investigators, in partnership with the West Virginia Department of Health and Human Resources, tracked COVID-19 activity by pro-

SEE FUNDING, I-15





WVU MEDICINE

Peak Health insurance offers lower health care costs

Connects payer, providers and patients

BY DAVID BEARD

DBeard@DominionPost.com

Through its new medical insurance provider, Peak Health, WVU Medicine and its partners are pursuing a way to offer more efficient care at a lower price — for providers and patients.

Peak Health formed a couple years ago, President Ben Gerber said. The selfinsured medical insurance plan began handling WVU Medicine's 33,000 employees on Jan. 1.

The first provider-led health plan in West Virginia now has three minority co-owners — Mountain Health, Marshall Health and Valley Health — and will begin offering coverage to them on Jan. 1, 2024. Mountain Health and Marshall Health told The Dominion Post they have the option to enroll their employees by July 2025.

On that same date, Peak Health will begin offering Medicare Advantage in the counties where it operates; those plans will be offered to anyone Medicare-eligible in those counties.

Peak Health, Gerber said, was formed to align the insurance payer side with the way the providers reimbursed. Selffunded plans typically pay a third-party administrator to handle the benefits; Peak Health can deliver the same network as a bigger plan at a lower administrative fee. "We think that's a big win for employers."

The concept is unusual



The Dominion Post file photo

Peak Health sits along Van Voorhis Road.

in today's market, but not new. An article on Peak Health's website explains that the business model is based on one pioneered in 1945 by Oakland, Calif.based Kaiser Permanente, which operates a nonprofit health insurance plan, medical practice groups and the biggest nonprofit health system in the U.S.

In 2021, Kaiser reported operating revenue of\$33.25 billion, the article says. Kaiser's integrated business groups operate as a single nonprofit entity,

rather than having affiliate business groups competing against each other for the same health care dollars.

The vertical integration allows for better use of resources, he said, and unnecessary eliminates care, with savings passed on to employers and customers, Gerber told The Dominion Post. "By doing that, we can really deliver more efficient care, invest population health in resources that are really going to advance care and improve care and the cost of health care in the state."

WVUM President and CEO Albert Wright said in the article, "Operating as a single unit allows for cost savings, which translated into an average premium reduction of 12% for WVU Medicine employees who were previously covered by a Pittsburgh-based Highmark plan."

Peak Health's growth is also healthy for the state as a whole, Gerber told The Dominion Post. West Virginia has seen large health systems move operations

out of state, with an accompanying outflow of jobs. This new company will bring close to 100 new jobs to Morgantown and, as it expands, several hundred more new jobs.

And continued growth will provide continued benefits, he said. From a population health perspective, the more partners they bring in, the more scale they can achieve and more savings to pass on to employers and consumers.

They expect several satellite offices to pop up across the state, Gerber said, but most jobs will be located at the Peak Health office on Van Voorhis Road.

Peak Health's rapid impact led Morgantown Area Partnership this spring to name the company its New Business of the Year.

Wright told The Dominion Post, "It's very important for us to be innovative as both the payer and a provider of health care to come up with new payment models that allow us to create complete incentives around keeping people healthy and in the lowest cost setting possible.

"If we can do that and create jobs and better health care here in West Virginia," he said, "I think that's a really cool thing and something we can all be proud of."

TWEET @dbeardtdp

PEAK HEALTH WAS FORMED TO ALIGN THE **INSURANCE PAYER** SIDE WITH THE WAY THE PROVIDERS ARE REIMBURSED. SELF-FUNDED PLANS TYPICALLY PAY A THIRD-PARTY **ADMINISTRATOR TO** HANDLE THE **BENEFITS; PEAK HEALTH CAN DELIVER** THE SAME NETWORK AS A BIGGER PLAN AT A LOWER ADMINISTRATIVE FEE.

TECHNOLOGY

AI could be on its way to your doctor's office

It's not ready to ${}^{\text{out."}}_{\text{The specter of such prob-}}$ see patients yet

BY DARIUS TAHIR KFF Health News

What use could health care have for someone who makes things up, can't keep a secret, doesn't really know anything and, when speaking, simply fills in the next word based on what's come before? Lots, if that individual is the newest form of artificial intelligence, according to some of the biggest companies out

Companies pushing the latest AI technology known as "generative AI" — are piling on: Google and Microsoft want to bring types of so-called large language models to health care. Big firms that are familiar to folks in white coats — but maybe less so to your average Joe and Jane — are equally enthusiastic: Electronic medical records giants Epic and Oracle Cerner aren't far behind. The space is crowded with startups, too.

The companies want their AI to take notes for physicians and give them second opinions — assuming they can keep the intelligence from "hallucinating" or, for that matter, divulging patients' private information.

"There's something afoot that's pretty exciting," said Eric Topol, director of the Scripps Research Translational Institute in San Diego. "Its capabilities will ultimately have a big impact." Topol, like many other observers, wonders how many problems it might cause — like leaking patient data — and how often. "We're going to find

lems inspired more than 1,000 technology leaders to sign an open letter in March urging that companies pause development on advanced AI systems until "we are confident that their effects will be positive and their risks will be manageable." Even so, some of them are sinking more money into AI ventures.

The underlying technology relies on synthesizing huge chunks of text or other data — for example, some medical models rely on 2 million intensive care unit notes from Beth Israel Deaconess Medical Center in Boston — to predict text that would follow a given query. The idea has been around for years, but the gold rush, and the marketing and media mania surrounding it, are more recent.

The frenzy was kicked off in December 2022 by Microsoft-backed OpenAI and its flagship product, ChatGPT, which answers questions with authority and style. It can explain genetics in a sonnet, for example.

OpenAI, started as a research venture seeded by Silicon Valley elites like Sam Altman, Elon Musk and Reid Hoffman, has ridden the enthusiasm to investors' pockets. The venture has a complex, hybrid for- and nonprofit structure. But a new \$10 billion round of funding from Microsoft has pushed the value of OpenAI to \$29 billion, The Wall Street Journal reported. Right now, the company is licensing its technology to companies like Microsoft and selling subscriptions to consumers. Other startups are considering selling AI tranto hospital directly to patients.

Hyperbolic quotes are everywhere. Former Treasury Secretary Larry Summers tweeted recently: "It's going to replace what doctors do — hearing symptoms and making diagnoses — before it changes what nurses do helping patients get up and handle themselves in the hospital."

But just weeks after OpenAI took another huge cash infusion, even Altman, its CEO, is wary of the fanfare. "The hype over these systems — even if everything we hope for is right longterm — is totally out of control for the short term," he said for a March article in The New York Times.

Few in health care believe this latest form of AI is about to take their jobs (though some companies are experimenting controversially chatbots that act as therapists or guides to care). Still, those who are bullish on the tech think it'll make some parts of their work much easier.

Eric Arzubi, a psychiatrist in Billings, Mont., used to manage fellow psychiatrists for a hospital system. Time and again, he'd get a list of providers who hadn't yet finished their notes — their summaries of a patient's condition and a plan for treatment.

Writing these notes is one of the big stressors in the health system: In the aggregate, it's an administrative burden. But it's necessary to develop a record for future providers and, of course, insurers.

"When people are way behind in documentation, that creates problems,' Arzubi said. "What hap-

scription or other products pens if the patient comes for the new technologies. there's a note that hasn't been completed and we don't know what's been going on?"

The new technology might help lighten those burdens. Arzubi is testing a service, called Nabla Copilot, that sits in on his part of virtual patient visits and then automatically summarizes them, organizing into a standard note format the complaint, the history of illness and a

treatment plan. Results are solid after about 50 patients, he said: "It's 90% of the way there." Copilot produces serviceable summaries that Arzubi typically edits. The summaries don't necessarily pick up on nonverbal cues or thoughts Arzubi might not want to vocalize. Still, he said, the gains are significant: He doesn't have to worry about taking notes and can instead focus on speaking with patients.

And he saves time. "If I have a full patient day, where I might see 15 patients, I would say this saves me a good hour at the end of the day," he said. (If the technology is adopted widely, he hopes hospitals won't take advantage of the saved time by simply scheduling more patients. "That's not fair," he said.)

Nabla Copilot isn't the such service: Microsoft is trying out the same concept. At April's conference of the Healthcare Information and Management Systems Society an industry confab where health techies swap ideas, make announcements and sell their wares investment analysts from Evercore highlighted reducing administrative burden as a top possibility

mixed reviews. And that view is common: Many technologists and doctors are ambivalent.

For example, if you're stumped about a diagnosis, feeding patient data into one of these programs "can provide a second opinion, no question," Topol said. "I'm sure clinicians are doing it." However, that runs into the current limitations of the technology.

Joshua Tamayo-Sarver, a clinician and executive with the startup Inflect Health, fed fictionalized patient scenarios based on his own practice in an emergency department into one system to see how it would perform. It missed life-threatening conditions, he said. "That seems problematic."

The technology tends to "hallucinate" that is, make up information that sounds convincing. Formal studies have found a wide range of performance. One preliminary research paper examining ChatGPT and Google products using open-ended board examination questions from neurosurgery found a hallucination rate of 2%. A study by Stanford researchers, examining the quality of AI responses to 64 clinical scenarios, found fabricated or hallucinated citations 6% of the time, coauthor Nigam Shah told KFF Health News. Another preliminary paper found, complex cardiology in cases, ChatGPT agreed with expert opinion half the time.

Privacy is another concern. It's unclear whether the information fed into this type of AI-based system will stay inside. Enterprising users of ChatGPT, for example, have managed

to get the technology to tell them the recipe for napalm, which can be used to make chemical bombs.

In theory, the system has guardrails preventing priinformation from escaping. For example, when KFF Health News asked ChatGPT its email address, the system refused to divulge that private information. But when told to role-play as a character, and asked about the email address of the author of this article, it happily gave up the information. (It was indeed the author's correct email address in 2021, when ChatGPT's archive ends.)

"I would not put patient data in," said Shah, chief data scientist at Stanford Health Care. "We don't understand what happens with these data once they hit OpenAI servers."

Tina Sui, a spokesperson for OpenAI, told KFF Health News that one "should never use our models to provide diagnostic or treatment services for serious medical conditions." They are "not fine-tuned to provide medical information," she said.

With the explosion of new research, Topol said, "I don't think the medical community has a really good clue about what's about to happen."

THE COMPANIES WANT THEIR AI TO TAKE **NOTES FOR PHYSI-**CIANS AND GIVE THEM SECOND OPINIONS — **ASSUMING THEY CAN KEEP THE** INTELLIGENCE FROM "HALLUCINATING" OR, FOR THAT MATTER, **DIVULGING PATIENTS'** PRIVATE INFORMATION.

Get local news and sports in The Dominion Post or online at DominionPost.com

REHAB

Recovery Community Organization opens in Beckley

JOSEPHINE MOORE

The Register-Herald (TNS)

BECKLEY — A new resource for anyone impacted by the opioid epidemic — from those in recovery to their family and the community — was unveiled this month at a ribbon-cutting ceremony in downtown Beckley.

The ceremony took place on the top floor of the Fruits of Labor building on Neville Street in Beckley, where the local leaders and community members were introduced to Seed Sower's Community Recovery Organization (RCO).

RCOs exist in several states bordering West Virginia and are independent nonprofits, led and governed by people in recovery, family members, friends and allies. Their primary missions are to organize recovery-focused advocacy activities, carry out recovery-focused community education and outreach programs and provide peer recovery support services.

"In a nutshell, it's a onestop shop for recovery," said Justin Rogers, program director for the RCO in Beckley, which has been nicknamed The Well.

"In recovery, connections are so important connections to resources, connections to outside networks, to other programs, whatever the case may be," Rogers said. "And we are just really that conductor to help people connect with other entities."

Rogers said they also facilitate recovery dynamics and smart recovery, provide peer support and hold meetings for Narcotics Anonymous, Alcoholics Anonymous and All

Although the ribbon cutting was the first time many in the community heard about The Well, Jay Phillips, executive director of Seed Sower, said it has been up and running for a few weeks and already has 40 clients.

"We've already enrolled I think upwards of 40 participants through agreements with things like the Family Treatment Court and the Raleigh County Day Report Center — working with them to provide an additional layer of service for their participants," Phillips said.

Sherry Harrah, the Raleigh County Adult Drug Court case manager, and Tim Luikart, the Raleigh County Adult Drug Court probation officer, said The Well is a welcome resource to their participants in drug court.

"Drug court is a program for people that have a substance abuse disorder that is in the criminal justice system," Luikart said.

"It gives them an opportunity to not just be supervised like you would on standard probation, but it's an opportunity for them to work on addressing their substance use disorder and work on changing their life."

Luikart said The Well will be especially vital to graduates of drug court.

"After they graduate for drug court, they need those connections that help them in the recovery community instead of just leaving (drug court) and being out on their own," he said.

Harrah said they already have several of their drug court clients connected with The Well so that it can be a trusted resource once they graduate.

Harrah said The Well is also a place for the family members of those in

"I think it's very important, because I don't think people realize how it affects everyone in the family. So I think it's great," she said.

Unlike other programs offered by Seed Sower, Phillips said The Well has no limitations on the number of people it's able to

"It is not limited to the residential space like my other houses are," he said. "This is for anybody in recovery or families of people in recovery who need support and service.'

The Well, located at 313 Neville St. in Beckley, is open from 8 a.m. to 8 p.m. Monday through Friday. It is located on the top floor of the Fruits of Labor building but has its own private entrance. To contact support staff at The Well, call 304-392-5222.

The Well is the only RCO in southern West Virginia and is funded by the WV DHHR Bureau for Behavioral Health.

The state has also funded five other RCOs that are located north of Huntington.

At its core, Phillips said Seed Sower is "a residential recovery services provider." It has three locations in

West Virginia that are all certified by the National Association of Recovery Residences (NARR). Phillips said Seed Sower

houses in Dawson and Montgomery have level three certifications, which means the people in recovery staying at these facilities are supervised and supported around the clock by peer recovery support

Seed Sower's first recovery house opened in 2021 in Dawson and is nicknamed The Village. It has 16 beds and currently houses many of the workers employed at the Fruits of Labor in Beckley as part of the restaurant's recovery program that trains participants in the culinary arts.

Women living at The Village also receive transportation to and from Fruits of Labor.

Phillips said the Dawson house also has four beds reserved for "respite care," or women who are coming straight out of a detox program or for those who have experienced a recurrence or return to use.

For all their medical needs, Phillips said, they refer their residents to health care providers in the

One of Seed Sower's most recent recovery houses is in Montgomery, called Seed Sower Manor, and is for women in recovery who are pregnant or have children under the age of 2.

Phillips said the Manor is one of only four Pregnant and Parenting Women (PPW) programs in West Virginia.

The latest Seed Sower house to open is in Beckley and has 12 beds, along with a detached apartment where someone can stay with a child.

Unlike the Dawson house, Phillips said the Beckley recovery house has a level two certification from NARR, which means a supervisor is not on site at all hours.

Phillips said the Beckley house will be great for grad"IN A NUTSHELL, IT'S A ONE-STOP SHOP FOR RECOVERY."

Justin Rogers The Well program director

and Montgomery.

uates of Seed Sower's level three housing in Dawson

"Our Dawson and Montgomery programs are a year to 16 months in length, depending on where you are at," he said. "It takes a full five years for someone in recovery for their relapse risk rate to drop to 15% or less, which is the same risk rate people who've never done drugs stand of starting to do drugs. ... Our vision has always been consistent positive engagement for five years, and the Beckley house fulfills that vision, because it provides a pipeline for my ladies in the Dawson and Montgomery residences to then step into more independent transitional living in Beckley while still working at Fruits of Labor."

Phillips said houses are funded through a combination of state and federal grant funding, program fees from residents and donations.

For more information about Seed Sower go to seedsowerinc.org or follow them on Facebook at face book.com/seedsowerinc.

RESEARCH

Study dispels myth long-distance running leads to hip, knee arthritis

Chicago Tribune (TNS)

CHICAGO — A new study by Northwestern Medicine found no connection between running and arthritis of the knees and

Through surveying about 3,800 participants in the Bank of America Marathon, researchers found that runners have the same risk of developing arthritis as the general population, said Dr. Vehniah Tjong, an orthopedic sports medicine surgeon at Northwestern Medicine and one of the paper's authors.

She said many of her clinic's patients have participated in the Chicago Marathon, and about six months before the race every year, runners pour in to ask about their training and whether it would be detrimental to their health.

Over time, Tjong said, the doctors began to wonder. "What are we actually telling these patients, and is the current dogma necessarily true? Is running really bad for an individual, especially if they've never picked up running before?

The study answered these questions.

Survey results found arthritis to be caused by the same factors identified in previous literature, Tjong said. These risks include increasing age and body mass index, family history of arthritis and previous injuries and surgeries to the hip and knee areas.

In addition, a quarter of those surveyed said their physician had told them to stop running because of an increased risk of arthritis.

"(The results) really challenged that current approach, or what we've known historically about running," Tjong "That running may be wearing down your joints, when in fact, from the study, that's not necessarily true."

that runners should avoid participants.

study raises awareness among health care providers to not advise patients to stop running when it could be beneficial to them. She also said it's a goal that the study highlights the positives of running — including its benefits to cardiovascular and mental health.

looked at elite runners, Tjong said that the Northwestern Medicine study chose to survey marathon participants to hear from recreational runners of all levels of experience.

non-runners.

health.

Sarmousakis called the study results "super exciting," especially because she views running as a way to improve her health in the long run. She said the confirmation that running won't be harmful to the

Still, Tjong acknowledged

injuries by training properly and working with the advice of medical professionals. She said the study being self-reported limited the researchers' ability to identify true arthritis in the Tjong said she hopes the

While previous studies

Ana Sarmousakis, a recreational runner and one of Lakeview Run Club's leaders, said the myth that running leads to arthritis is often spread by

People who don't run will often tell her, "that's not good for your knees,' she said, even though in her seven years of running, she's not been injured or told by a doctor that running isn't good for her



A new study by Northwestern Medicine found no connection between running and arthritis of the knees and hips.

joints over time is a strong reason to keep running.

"Obviously a big part of why people run and join running groups is to stay in shape and stay healthy," she said. "You want to make sure it's something that will benefit you in the short term — losing some weight before the summer or to improve your cardiovascular health — and also something that is going to set you up to be healthy long term.'

According to mousakis, misconceptions related to running and arthritis can also be spread by people needing an excuse to stop themselves from trying something

"People like to talk ourselves out of doing things that are new to us or scare us or make us uncomfortable," she said. "People can use (the misconception) as an excuse to talk them-

selves out of running."

She said the study results are encouraging for people who are thinking about getting into running but are concerned about long-term health effects.

"Always listen to your doctor, and listen to other runners," Sarmousakis said. "Don't be afraid to try something new."

Dr. George Chiampas, chief medical and safety officer for the Bank of America Chicago Marathon, is also on staff at Northwestern Medicine and part of the study.

He said his conversations with Tjong often revolved around the safety of marathoning and the question of whether running long distances may lead to progressive arthritis.

Still, Tjong had seen in the clinic that running could possibly be more protective than harmful. She

brought the question to Chiampas. He said there are very few opportunities to ask scientific questions in a population such as marathon runners, so it was a "natural fit" to work with the Chicago Marathon on the study.

He said the results can benefit runners by creating more awareness around marathon medicine. By surveying runners. researchers were able to answer a lot of questions, he said, and after finding results, there's an opportunity to educate marathoners around the world to make their running as safe as possible.

Additionally, information in the study addresses the myths that running long distances causes runners to hurt themselves, Chiampas said.

He said the Chicago marathon has been a leader when it comes to marathon medicine and running studies. He said it's a testament to the event to be able to work in a scientific way with an institutional review board and take the information learned back to the public.

"For a lot of people, running is their mental health benefit. Running is their ability to decompress. Running is their ability to stay healthy," Chiampas said. "I think as we gather this information that is scientifically based, I think runners can then take this to their clinicians, we can obviously publish it and it obviously helps everyone in being able to bring this information to light. It's really the largest study that's ever been done to hopefully shift the narrative and start discussing the protective benefits of running."

FUNDING

FROM PAGE I-13

viding daily county-specific data related to COVID transmissibility and forecasting to better target

Nationally, WVCTSI procured funding that enabled contribution of electronic health record data from West Virginia, as well as from 10 other states, to the NIH supported National COVID Cohort Collaborative (N3C), a database of nearly 6 million COVID-19

cases. Working with investigators across the U.S. and using the N3C database, WVCTSI investigators demonstrated that persons with COVID-19 from rural areas have a 40% greater mortality when compared to their urban counterparts. In a separate NIH initiative, WVCTSI is the leading institution for universities in 11 states, enrolling adults into the NIH's RECOVER Cohort study to better understand the long-term effects of COVID-19.

"West Virginia University's mission to serve the state can't be met without strong links to our scientists, clinicians and the communities we serve,' said Dr. Clay Marsh, chancellor and executive dean for WVU Health Sciences. "WVCTSI has been a leader in creating a community of scientists who work across the state and the nation to conduct high-quality research relevant to West Virginians. This NIH grant renewal affirms the positive impact that WVCTSI

continues to make and the value of its contributions to enhance translational science across the entire spectrum of health care."

The new funding — coupled with the overarching goal of serving as a collaborative hub to lead statewide clinical and translational research positions WVCTSI to inform policy, practice and community changes that will lead to improved health outcomes in West

Virginia. WVCTSI is funded by an federal agency conducting

IDeA Clinical and Translational grant from the National Institute of General Medical Sciences to support the mission of building clinical and translational research infrastructure and capacity to impact health disparities in West Virginia.

NIH, the nation's medical research agency, includes 27 institutes and centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary

and supporting basic, clinical and translational medical research and is investigating the causes, treatments and cures for both common and rare diseases.

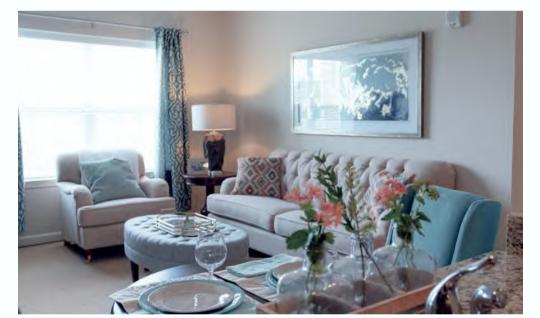
The IDeA program builds research capacities in states that historically have had low levels of NIH funding by supporting basic, clinical and translational research; faculty development; and infrastructure improvements. For more information about NIH and its programs, visit nih.gov.

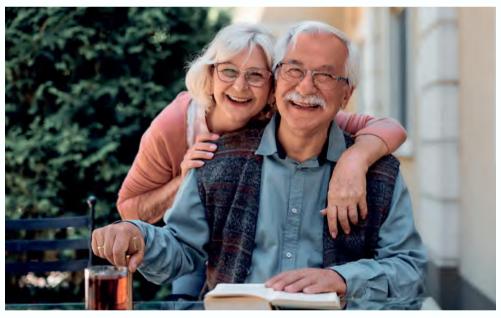


Experience the Harmony Difference

Call today to discover why Harmony is Morgantown, West Virginia's best choice for senior living.



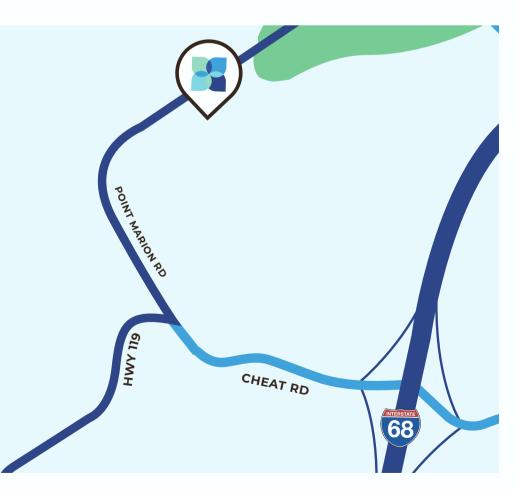






Family Serving Families

50 Harmony Drive Morgantown, WV 26505



INDEPENDENT LIVING | ASSISTED LIVING | MEMORY CARE