

GRAND VALLEY STATE UNIVERSITY

TRANSFORMING

Health Care

2019 Annual Health Report



GRAND VALLEY
STATE UNIVERSITY

COOK-DEVOS
CENTER FOR HEALTH SCIENCES
CAMPUS - GRAND RAPIDS

LETTER FROM GRAND VALLEY STATE UNIVERSITY'S HEALTH LEADERSHIP TEAM

It is our pleasure to present the sixth edition of Transforming Health Care, the Grand Valley State University Annual Health Report, which provides examples of the many programs, collaborations, and contributions that define our footprint in health care. This publication gives evidence of the university's commitment to developing a talent pipeline to promote quality health care and to serving our communities.

Grand Valley remains the leading provider of health care professionals in our region with over 9,300 students enrolled in our 65 health-related programs. Our health profession students engage in classroom and clinical experiences, service-learning activities, and simulation events as part of their educational journey. Our exceptional faculty and preceptor partners provide active learning experiences for students as they transition to becoming skilled practitioners.

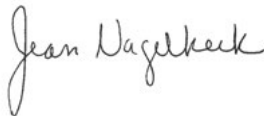
Involvement of our health care and business partners in the education of our students remains a central component in our success. Preceptors and internship supervisors assist in guiding the experiential component of our students' education in health care and community settings, helping them to bridge the gap between theoretical learning and practice. Our preceptors have a significant impact on the students they have served.

Currently, construction is under way for the Daniel and Pamela DeVos Center for Interprofessional

Health, a facility that will maximize interaction among students and across programs through state-of-the-art simulation and technology resources. The newest building on Grand Valley's Health Campus, anchors the east end of Grand Rapids Medical Mile allowing close proximity for collaboration with health care organizations and serving as a learning hub for our students. This facility provides an opportunity to expand and update the University Simulation Center, doubling the space for interactive learning. These learning spaces will include traditional and virtual equipment including 3D modeling and detailed imaging of the body. The space is designed for program expansion as well as to allow the university to adapt to future workforce needs. The building also will house the Kirkhof College of Nursing, the College of Health Profession's dietetics kitchen and learning laboratories, a library, and student support and success services.

We look forward to helping our students as they develop into their roles as practitioners, innovators, problem solvers, and community leaders. We know the community will be enriched by the education our students have received and the dedication they demonstrate as they help shape the future of health care. Please take the opportunity to contact us with questions and/or recommendations for future collaborations.

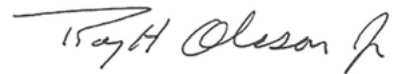
Respectfully,



JEAN NAGELKERK
VICE PROVOST FOR HEALTH



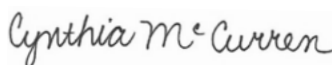
DIANA LAWSON
DEAN, SEIDMAN COLLEGE OF BUSINESS



ROY H. OLSSON JR.
DEAN, COLLEGE OF HEALTH PROFESSIONS



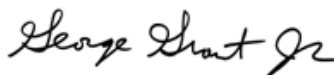
FREDERICK J. ANTCAK
DEAN, COLLEGE OF LIBERAL ARTS
AND SCIENCES



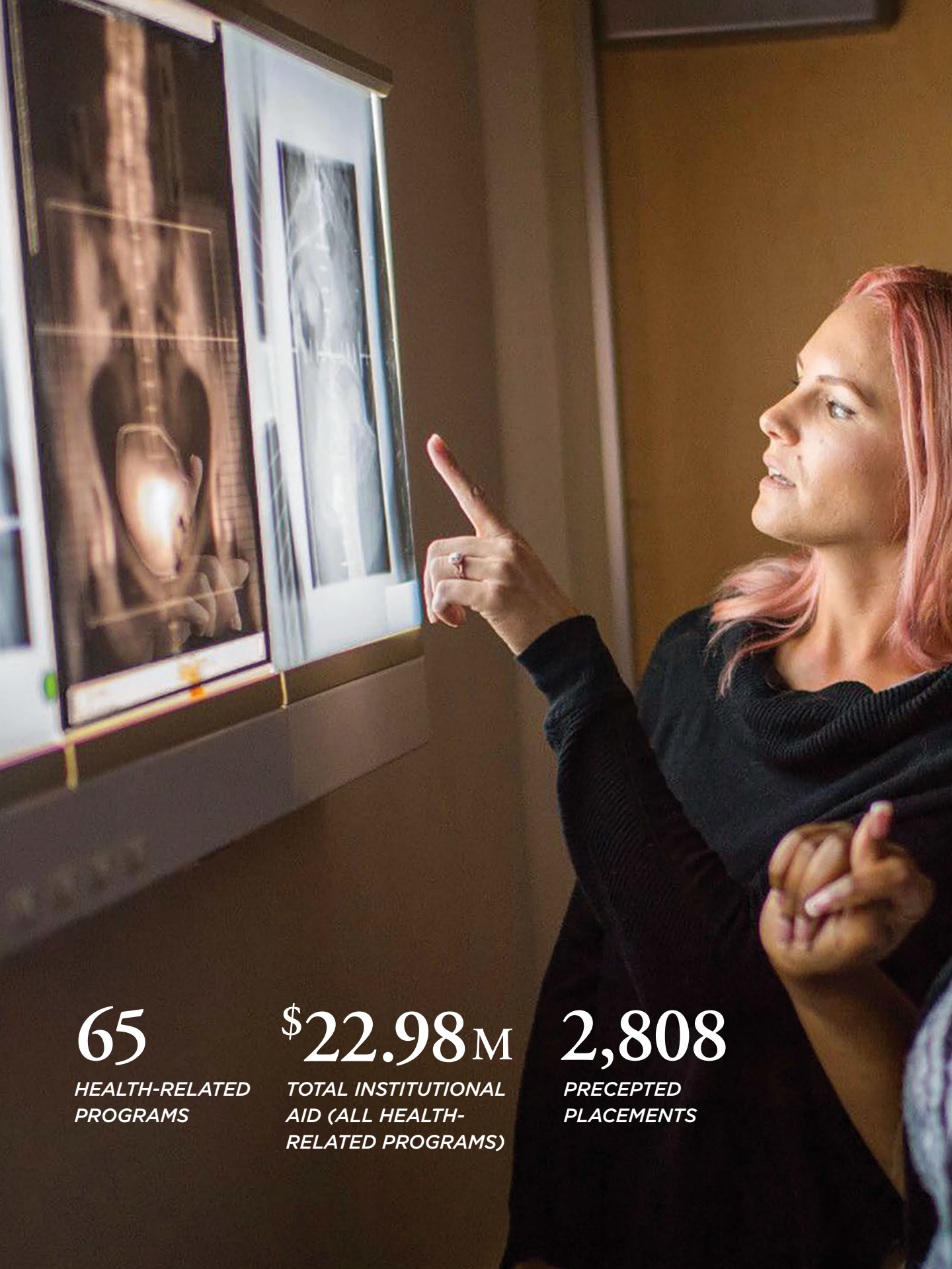
CYNTHIA MCCURREN
DEAN, KIRKHOF COLLEGE OF NURSING



PAUL D. PLOTKOWSKI
DEAN, SEYMOUR AND ESTHER PADNOS
COLLEGE OF ENGINEERING AND COMPUTING



GEORGE GRANT, JR.
DEAN, COLLEGE OF COMMUNITY AND PUBLIC SERVICE



65

HEALTH-RELATED
PROGRAMS

\$22.98M

TOTAL INSTITUTIONAL
AID (ALL HEALTH-
RELATED PROGRAMS)

2,808

PRECEPTED
PLACEMENTS

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HEALTH CAMPUS EXPANSION

The flagship building on Medical Mile will open in 2021 and allow the university to significantly expand its simulation center and space for interprofessional work.



The Daniel and Pamella DeVos Center for Interprofessional Health will be located on Grand Rapids' Medical Mile.





Dignitaries participate in the traditional shovel ceremony at the fall 2018 groundbreaking for the Daniel and Pamella DeVos Center for Interprofessional Health.

GVSU HEALTH CAMPUS EXPANDS ITS PRESENCE ON MEDICAL MILE

Grand Valley State University's Health Campus is expanding along the Medical Mile in downtown Grand Rapids with the Daniel and Pamella DeVos Center for Interprofessional Health.

The new center, Grand Valley's third flagship building on the Health Campus, is under construction at 333 Michigan St. and when completed in May 2021 will join the Cook-DeVos Center for Health Sciences and the Raleigh J. Finkelstein Hall. The building's innovation space will contribute

to the evolution of Grand Valley's health and health-related programs as they address changing health care needs.

The new five-story, 160,000-square-foot center will allow Grand Valley to significantly expand and update its simulation center and space available for collaborative work. The building will include 15 classrooms and 14 interactive laboratories, as well as support expanding undergraduate- and graduate-level programs.



More than 300 people attended a groundbreaking ceremony for the new center on October 23, 2018, where Provost Maria Cimitile said the center will help Grand Valley continue to be a talent pipeline, providing exceptional health care providers for the state and region. Grand Valley is the region's leading provider of health care professionals offering more than 20 health sciences programs. The university's unique, interprofessional education initiatives will ensure students are fully prepared to fill the high-demand, interdisciplinary, interprofessional team positions in today's health care industry.

Daniel and Pamella DeVos provided insights to their family's involvement and interest in Grand Valley's expansion.

Students will use state-of-the-art simulation and technology resources and through expanded opportunities for collaboration with health care colleagues from the community. New technology will include electronic 3D modeling and imaging of the body and its organs. Expanded commons and reading room areas will offer students additional space for research and study.

The Kirkhof College of Nursing will be housed in the center, bringing faculty and students together in collaborative spaces to accommodate interactive learning.



Grand Valley occupational therapy students explore the intricacies of wheeled mobility devices in patient care.





ADVANCING EDUCATION

Early admission agreements for pre-med students, a new Doctorate in Occupational Therapy program, and an expansion of the Scribe Academy are preparing students for rigorous health-related careers.

OCCUPATIONAL THERAPY DOCTORATE

The occupational therapy profession is in a state of growth and opportunity. The Bureau of Labor Statistics predicts 24 percent growth in jobs for occupational therapists (OTs) from now until 2026. In addition, the American Occupational Therapy Association's (AOTA) Salary and Workforce Study in 2015 indicated the most significant rise in salary was among OTs working in home health care and academic practice settings. The postprofessional Doctorate in Occupational Therapy (Dr.O.T.) at Grand Valley State University (GVSU) was designed to prepare practicing occupational therapists for advanced practice and leadership positions in administration, higher education, and advocacy to address the challenging health care needs in workplaces, communities, and society. GVSU's Dr.O.T. program is the only postprofessional Dr.O.T. program in Michigan.

Rationale for the Dr.O.T. program is multifaceted. The primary reason includes the need for a higher level of competence among occupational therapy practitioners. Specifically, the profession has become more theory-driven with occupational science as the basis for practice. Occupational science is an academic discipline that explores the health outcomes gained from participation in meaningful physical, social, cognitive, and emotional activity referred to as occupations. Additionally, reimbursement of services has become more stringent, requiring use of evidence-based practice supported by research. Occupational therapy research identifies the use of occupation-based interventions as best practice, leading to effective, long-standing, therapeutic outcomes across populations and practice settings. Lastly, the Dr.O.T. program addresses the significant shortage



The Hoyer Advanced Patient Lift is an example of the high-quality equipment used in the occupational therapy classes.

Grand Valley's Dr.O.T. program provides an innovative, progressive, and accessible curriculum for working professionals who wish to advance knowledge and skills in today's complex health care environments.

of qualified OT educators. While a number of Ph.D. occupational therapy programs exist nationally, the most sought-after programs emphasize practice skill. The Grand Valley Dr.O.T. program is a clinical practice degree and provides practitioners with valuable, advanced, professional competencies.

Grand Valley's Dr.O.T. program provides an innovative, progressive, and accessible curriculum for working professionals who wish to advance knowledge and skills in today's complex health care environments in both clinical and community settings. Adult learning concepts are applied throughout the curriculum including critical thinking in problem analysis and creation of evidence-based solutions. Faculty serve as guides, mentors, and facilitators and have a broad range of skills and knowledge in practice throughout the lifespan including aging in place, home health care, home modifications, environmental design, orthopedic and neurological conditions, vision, school-based practice, sensory-diverse populations, higher education, research and scholarship, interprofessional education, policy development, and international, federal, and state advocacy.

The Dr.O.T. program consists of an online curriculum spread across six consecutive semesters with six credits each semester. The curriculum is accessible with

asynchronous coursework, requiring only two visits to campus, and allowing in-state tuition for all students. This format provides learners with ample time to explore course content while working. In fact, students have opportunities to pair professional interests from current employment with curricular assignments, resulting in meaningful application of doctoral course content. The curricular structure of the Dr.O.T. program includes a set of seven core courses that address three specific areas: (1) policy, advocacy, and leadership; (2) advanced concepts in occupational therapy practice; and (3) development of competencies in education, specifically related to teaching in entry-level occupational therapy programs. Additionally, students have a 12-credit doctoral project sequence and a single elective.

The Dr.O.T. program accepted applications through September 15, 2019, for the first cohort to begin in Winter 2020. Going forward annual applications will be accepted thereafter in September. Candidates for admission can find GVSU's Graduate Program application at gvsu.edu/gradapply.

The vision of Grand Valley's Dr.O.T. program is to provide occupational therapy practitioners with opportunities to expand knowledge bases in their practice areas and relate that knowledge to practical leadership, understanding public policy, recognizing social determinants of health, and using research-based practices for intervention. This program will help to bring occupational therapy practice to a new level of integrity and quality and advance opportunities for the profession.

Medical Laboratory Sciences

Grand Valley's medical laboratory science (MLS) program offers a rigorous curriculum culminating in a Bachelor of Science degree. Medical laboratory scientists perform complex analyses to provide data that aids clinicians in detection, diagnosis, treatment, and prevention of disease.

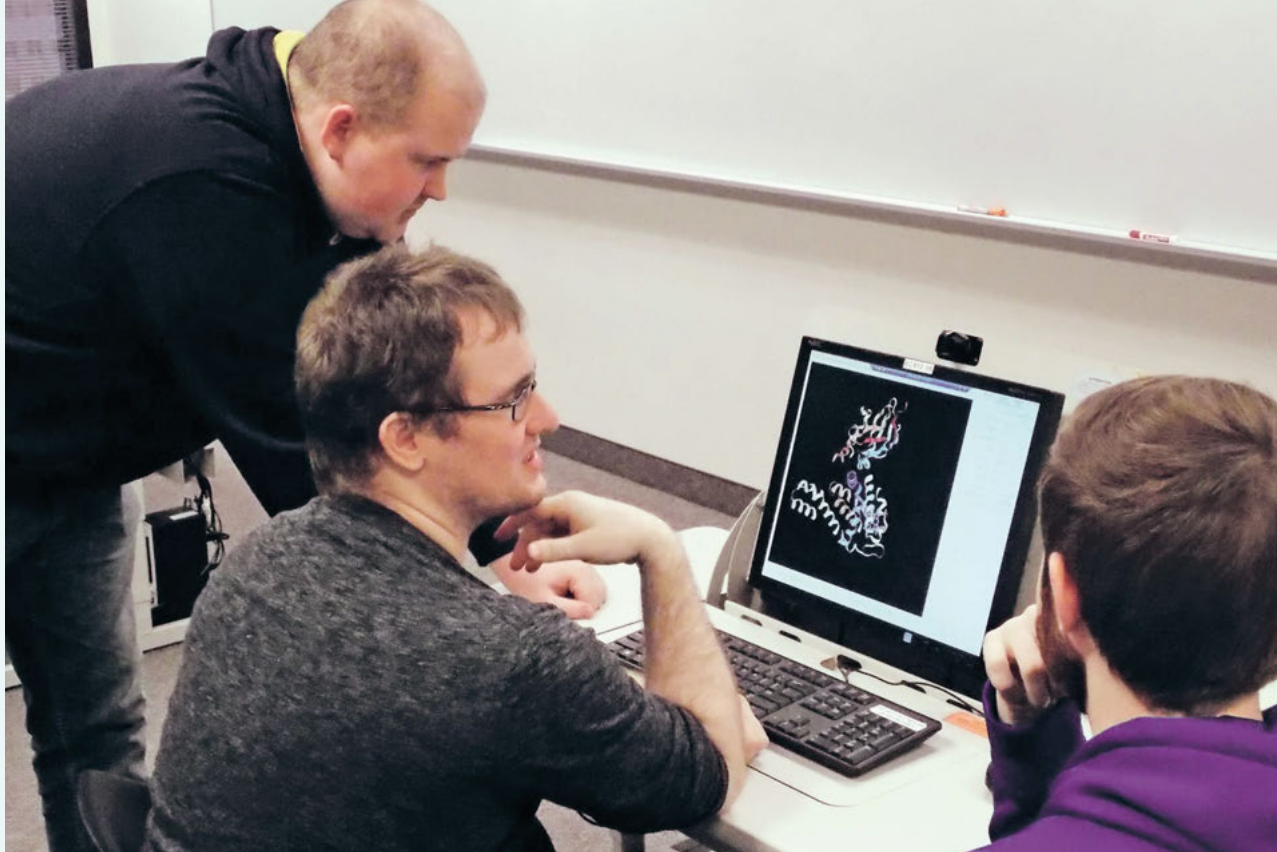
The need for medical laboratory scientists is at an all-time high as the number of available jobs exceeds the number of professionals completing educational programs. Since opening in 2003, the MLS program has grown steadily from an original cohort class size of seven to 24. Susan Smith, senior director of laboratory operations at Spectrum Health Regional

Laboratories in Grand Rapids, stated that "Over the last year, we have seen 46 requisitions filled for vacancies in the MLS area. Without working closely with our MLS partners at Grand Valley State University, we would have had significant challenges in keeping the laboratories operating efficiently and appropriately staffed."

A particular student recruitment challenge facing the MLS profession is that it continues to be a lesser known "discovery" profession. Students in Grand Valley's MLS program created a video to increase awareness of their profession, which won The American Society for Clinical Laboratory Science 2018 Membership National Video Contest. This video is available at youtube.com/watch?v=pjkJExhrfCM/.



Program Chair and Professor Jeanne Stoddard, B.S., guides students through their lab work.



Professional Science Master's in Health Informatics and Bioinformatics

The health informatics and bioinformatics (HIBI) program is one of the four professional science master's (PSM) degree programs at Grand Valley State University. The HIBI program has two areas of emphasis: health informatics and bioinformatics. The health informatics emphasis focuses on collecting, processing, analyzing, and storing patient information and using big data sets to provide effective clinical solutions. The bioinformatics component focuses on analyzing and modeling genomic data to interpret the molecular bases of disease and then translate this information to clinical practice.

Students in the HIBI program complete coursework that provides solid foundations in topics such as high-performance computing, information visualization, data mining, and database design. The program also includes a mandatory industry-based internship of at least 440 hours during which students apply their technical skills to real-world issues, while they develop professional abilities essential for workplace success.

This program has been ranked No. 19 in the Top 25 Master's in Healthcare Informatics Degrees by *MBA Healthcare Management*. The program was recognized for robust business and ethics elements.

Questions about the health informatics and bioinformatics program can be directed to Guenter Tusch, Ph.D., chair of the HIBI program, via email at tuschg@gvsu.edu or Anirudh Chowdhary, coordinator of the PSM programs at chowdhan@gvsu.edu.



Grand Valley's Provost Maria Cimitile and Vice Provost for Health Jean Nagelkerk join MSU second-year med student John Westfall, former MSU Provost and Executive Vice President for Academic Affairs June Youatt, and Andrea Amalfitano, interim dean of the MSU College of Osteopathic Medicine, at a news conference for the GVSU/MSU early assurance admission program agreement.

GVSU/MSU Collaborative, Early Admission Program in Medicine

Qualified premedical students at Grand Valley will receive early assurance of admission into the Michigan State University (MSU) College of Osteopathic Medicine following a recent agreement that reserves up to five positions for Grand Valley students per year. Preference will be given to students who are recipients of Pell grants, first-generation college students, or graduates of a high school in a medically underserved rural or urban area. Under the agreement, MSU College of Osteopathic Medicine agreed to waive supplemental application fees for Grand Valley students who qualify

and provide them with opportunities to network with medical students and faculty and staff members.

Maria Cimitile, Ph.D., M.A., GVSU's provost and executive vice president for academic and student affairs; Jean Nagelkerk, Ph.D., F.N.P. FNAP, GVSU's vice provost for health; and Andrea Amalfitano, D.O., Ph.D., MSU College of Osteopathic Medicine's interim dean, celebrated the partnership as being very important for both institutions, as well as students.

Qualified students can apply to the MSU College of Osteopathic Medicine program in early February for admission in 2020. Grand Valley and Grand Rapids Community College entered into a similar agreement with MSU's College of Human Medicine in 2012.

Agreement with WMU Homer Stryker M.D. School of Medicine Provides Benefit to Students

Grand Valley students who want to pursue medical careers will benefit from a preferred relationship, which includes an early decision program with the Homer Stryker M.D. School of Medicine at Western Michigan University. GVSU President Emeritus Thomas J. Haas, Ph.D., said the agreement represents the commitment from both institutions to fulfill the talent pipeline and help ease the regional and national shortage of physicians. Under the WMedStart early decision program,

Grand Valley students at the beginning of their junior year can apply to WMed for an early decision of admission following completion of their bachelor's degree. Students accepted through the early decision program benefit as they can focus on completing a bachelor's degree without the additional stress and expense of applying to multiple medical schools.

Edward Montgomery, Ph.D., A.M., president of Western Michigan University, said the agreement is part of the “ecosystem to provide opportunities for young men and women.” WMed graduated its first class of medical students in 2018. Hal Jensen, M.D., M.B.A., founding dean, said WMed had great success in recruiting students to a newer medical school due, in part, to agreements like this.



Grand Valley Provost Maria Cimitile talks about the benefits of early decision program for Grand Valley students during a signing ceremony. With Cimitile are GVSU Vice Provost for Health Jean Nagelkerk (far left) and to the right, GVSU President Emeritus Tom Haas, Edward Montgomery, president of Western Michigan University; and Dr. Hal Jensen, founding dean of the Homer Stryker M.D. School of Medicine.

Scribe Academy Continuing to Expand

In 2015, Grand Valley was approached by Emergency Care Specialists (ECS) in Grand Rapids to prepare students to provide documentation services for health care providers in local emergency departments. Now, more than 350 scribe students have been trained to work in not only emergency departments, but also in cardiovascular; ear, nose, and throat; general surgery; orthopedic; pain management; primary care; and urology medical offices. ECS's scribe division is now called Helix Scribe Solutions providing scribe services in multiple Michigan locations including Battle Creek, Big Rapids, Grand Rapids, Greenville, Kalamazoo, Owosso, and Paw

Paw; remote scribe services are remote scribe services are available to providers in Fremont and Dickinson Counties. During training, students are given 80 hours of free medical scribe training and, after successful completion, are offered part-time employment as medical scribes.

Scribes' high-quality documentation relieves provider work burden. Bethany Beard, M.D., from Helen DeVos Children's Hospital said "Documenting without a scribe can be very distracting during a patient encounter. A scribe takes this distraction away and allows me to focus on the patient, engage with them socially, make eye contact, and observe them clinically so I know what's really going on with them." For more information, go to gvsu.edu/scribe/.



Grand Valley provides training for scribes to assist health care providers collaborating with Helix Scribe Solutions.

GVSU Department of Public Health Receives CEPH Accreditation

The Grand Valley State University Department of Public Health successfully received accreditation by the Council on Education for Public Health (CEPH) in June, a process of more than five years of data compilation and development of the program, which launched in 2013. CEPH is a voluntary accreditation for the field of public health. Schools and programs are not required to be accredited and only one quarter of schools in the country have this award. GVSU was the first to start an M.P.H. program in West Michigan and is the only program in the area that is accredited. The council's focus is the improvement of health through the assurance of professional personnel who are able to identify, prevent, and solve community health problems. The Grand Valley Department of Public Health's accreditation status dates retrospectively to June 2016 and is effective through July 1, 2024.







STUDENT LEADERSHIP, DEVELOPMENT, AND SERVICE LEARNING

Engineering students produce a medical device, undergraduate researchers earn nationally competitive scholarships, and student leaders raise funds for a nonprofit and challenge themselves in Central America.

(Left to right) Students Jordan Vanderham, Sam Oostendorp, Austin Williams and Jake Stephens

ENGINEERING STUDENTS COLLABORATE WITH BEAUMONT HEALTH ON DEVELOPING MEDICAL DEVICE



GVSU students developed the cough assist device as part of their engineering product design class.

A group of Grand Valley engineering students collaborated with Beaumont Health in metro Detroit to produce an affordable medical device to help people with neuromuscular diseases clear their airways. The cough assist device was created in spring 2018. Powered by a foot pump, it can help dislodge and remove secretions from a patient's respiratory tract, much like a cough.

The catalyst behind the idea was Dr. Bassel Salman, a pediatrician at Beaumont Health in Royal Oak. He took his idea to the Beaumont Commercialization Center, and staff at the center connected with John Farris Ph.D., professor of engineering at Grand Valley. Farris said four junior students in a product design class studied

current cough assist devices, which cost between \$6,000–\$12,000 and require a power source. “They worked as a team to problem-solve and did extensive research,” Farris said. “Working with Dr. Salman, the group was able to apply what they learned from materials and books from a wide range of courses.”

Jordan Vanderham was a student on the team. He said other cough assist devices were heavy and expensive. The team's device is portable, lightweight, and made from plastic and vinyl. It has a tube that attaches to a face mask and two valves to control air pressure and volume; it uses no electricity, only a foot pump to operate. The prototype costs less than \$300.

Other students on the team were Sam Oostendorp, Austin Williams, and Jake Stephens. “We designed the device to be used by people of all ages who have pulmonary problems, from children to adults,” Stephens said. “We aimed to make it simple and easy to use and are thrilled with how it turned out.”



One of the unique features of the cough assist device is that it more lightweight than other similar devices.

The Beaumont Commercialization Center negotiated a license with TechBank Medical, a medical commercialization organization based in Shanghai, China. Brad Yang, founder and CEO of TechBank Medical, said the device fit the company’s strategy. “For developed markets, like the U.S., this technology will provide a truly portable device that is small, lightweight, and does not require electrical power,” Yang said. “For developing markets, like China and India, the design allows for those previously unable to afford a cough assist device to finally get relief from their disease, as the technology has a simple and low-cost design.” Yang said he is hopeful to get approval from the Chinese government to introduce the device in

that country by the end of 2019, while continuing to conduct clinical research to study the effectiveness of the device.

This is the first time Grand Valley has worked with Beaumont Health, but not the first time students in the engineering program have created medical devices. The university has several collaborative agreements with area health care providers to identify needs and build medical devices. Engineering students have worked with Mercy Health and Spectrum Health, among others. “These collaborations bring together clinical and engineering expertise,” said Linda Chamberlain, of Grand Valley’s Technology Commercialization Office. “We want the student engineers to have valuable experiences and the clinical teams we work with to have solutions. It’s a great way for us to work together to solve problems.”



Dr. Bassel Salman, pediatrician at Beaumont Health, initiated the idea of the cough assist device.



A paramedic from Life EMS Ambulance helps to conduct a simulation with students from Grand Valley's PIPES program.

Promoting Interprofessional Education for Students (PIPES)

The Midwest Interprofessional Practice, Education, and Research Center, housed within Grand Valley, is home to the PIPES organization, which provides interprofessional opportunities for students in health-related regional academic programs to learn with, from, and about each other's health professions to improve collaboration and the quality of patient care.

During the 2018-2019 academic year, PIPES hosted several interactive events including an interprofessional simulation titled "Is Your Head in the Game." This simulation

was designed in collaboration with Grand Valley faculty members Andrew Booth, D.H.E.D., PA-C.; Mike Shoemaker, Ph.D., D.P.T.; Geraldine Terry, M.D., M.S.N., RN; and Meghan Fox, Ph.D., M.S., as well as Life EMS paramedics, the GVSU Simulation Team, and students.

The simulation was designed specifically for students to recognize and respond to an injured individual with a declining condition, overcome communication barriers, and practice patient hand-offs between bystanders and paramedics. More than 25 students participated, including students from Grand Valley's athletic training, nursing, occupational therapy, physical therapy, and public health academic programs and medical students from Central Michigan University.

Congratulations to Beckman Scholars Program Awardees

Two Grand Valley students have been selected for the rigorous Beckman Scholars Program award. Sophomores Erin Fish and Gage Paul will each receive \$21,500 to conduct 15-month research projects under the guidance of faculty mentors. The national undergraduate research program is funded by the Arnold and Mabel Beckman Foundation; Grand Valley was selected in 2017 to participate in the program for three years.

Erin Fish, majoring in biochemistry, is mentored by Brad Wallar, Ph.D., professor of chemistry. Wallar, several colleagues, and a team of students have collaborated for many years to study antibiotic resistance.

Fish will characterize enzyme structures and look for antibacterial inhibitors. Wallar said Fish has grown her research expertise while improving skills like time management, grant proposal writing, and presentation. “She is involved in solving a problem that hasn’t been answered yet, and that requires critically thinking through a project from the big scale to the most focused laboratory experiment,” he said.

Gage Paul, a double-major in cell and molecular biology and biomedical sciences is mentored by Sok Kean Khoo, Ph.D., associate professor of cell and molecular biology. Khoo has been researching Parkinson’s disease since 2009 and proposes that studying protein aggregation in flies could lead to stopping or slowing Parkinson’s progression in humans. Paul will study transgenic fruit flies that express a human gene that causes protein clumps in patients with Parkinson’s disease.



Beckman Scholars Program recipients Gage Paul and Erin Fish.



Kayla Hawkins and Joe Lorenz, both biostatistics graduate students, attended the 2018 SAS Global Forum.

Biostatistics Students Place Second in International Analytics Competition

A team of two biostatistics graduate students placed second overall in an international analytics competition held during the Student Symposium at the SAS Global Forum in April 2018. Kayla Hawkins and Joe Lorenz were one of eight student teams that was selected as finalists out of a pool of 60 teams.

Hawkins and Lorenz were challenged to find a public data set and write a Statistical Analysis System (SAS)-based analytics paper on the data for the competition. Under the mentorship of Robert Downer, professor of biostatistics and master's program director, the duo analyzed data representing why more than 110,000 medical appointments in Brazil were missed by patients, without cancellation, over a three-month period. The data was provided by Kaggle Inc.

Based on results of the analysis, Hawkins and Lorenz found that variables impacting the probability of a no-show included chronic illnesses, patient age, lack of reminders, and timing of appointment scheduling. "The most impactful snapshot that I gained from the data was that people suffering with lifelong chronic illnesses, like diabetes or alcoholism, were at greater risk of no-showing, which means that these people who probably are in the greatest need of medical care are not getting it," said Lorenz. "Drawing more attention to the negative effects that no-show appointments have and looking for remedies would be the most positive impact from our research," said Hawkins.

GVSU Exercise Science Students Study Balance Training

Undergraduate exercise science students, along with faculty member Steve Glass, Ph.D., FACSM, Department of Movement Science, are exploring ways to train balance. Injury and reduced mobility create reduced ability of muscles to rapidly react to changes in body position. Students in Glass's lab recently published two studies examining a novel way to train the muscles using a 25-pound tube partially filled with water (a "slosh tube"). Water turbulence, induced during an exercise, forced specific muscles induced during exercise into rapid, compensatory activation patterns in order to adjust to random momentum changes. Muscles within the back, which support balance and rotation, were especially activated. These compensatory muscle activations serve as shock absorption for the body, such that sudden changes in movement are absorbed without individuals losing their balance.

The students plan to conduct a training study looking at adaptations in compensatory muscle activation from the upper to lower body, as well as the forces at the feet before and after training with the tube. It is hoped that, following training, subjects are able to make faster compensatory adjustments, such that all of the balance disturbing movement is absorbed by the muscles and not the feet. The principle of training specificity suggests that the best way to train balance is by unbalancing, and the researchers hope to find a safe and effective way to do this.



Students Elizabeth Grobbel and Emilie Andrews demonstrate a training apparatus that can help individuals make adjustments to changes in body position.

Congratulations to New Goldwater Scholars

Two Grand Valley students received scholarships from the nationally competitive Goldwater Scholars program. Goldwater Scholars (496 chosen nationally this year from a pool of 5,000 students) are nominated by faculty members, have strong academic and research backgrounds, and will likely enroll in graduate schools. The last time Grand Valley students were selected as Goldwater Scholars was in 2012.

Erin Fish and Shea Siwik, both juniors and majors in biochemistry, each earned \$7,500 from the Barry Goldwater Scholarship and Excellence in Education Foundation.

Fish was also selected in 2018 for the Beckman Scholars Program, a national program operated by the Arnold and Mabel Beckman Foundation. She is a student ambassador for the Office of Undergraduate Research and Scholarship and gives classroom presentations on what it means to be a student researcher at Grand Valley. She plans to pursue a M.D./Ph.D. program.

Siwik works in the research lab of Paul Cook, Ph.D., associate professor of chemistry, characterizing enzymes involved in the production of a compound called bacillithiol, which several disease-causing bacteria use to destroy certain antibiotics. Siwik will spend the summer at the University of Nebraska-Lincoln as part of the National Science Foundation's Research Experiences for Undergraduates program.



Goldwater Scholars and students of biochemistry, Erin Fish and Shea Siwik

Wheel Run Together 5K Run/Walk

Each academic year, second-year doctor of physical therapy (D.P.T.) students host an event called the Wheel Run Together 5K Run/Walk. All proceeds from the event are donated to Alternatives in Motion, a Grand Rapids-based nonprofit organization with the mission “to enhance independence through access to mobility equipment.”

The 2019 event was organized by the D.P.T. class of 2020 under the direction of students Adam Epstein, Daniel Swanson, and Justina Marasco. These three event coordinators shared the following reflections:

“Having an event such as Wheel Run [Together] helps bring awareness to the importance of mobility and how everyone deserves an opportunity to be as independent as possible.”

—Adam

“Through the mobility devices that people receive through Alternatives in Motion, individuals are able to experience a level of independence that would otherwise not be possible.”

—Daniel

“It was an honor that our physical therapy program was able to put on this event to promote awareness for persons with disabilities [and to] support Alternatives in Motion.”

—Justina



Volunteers help Luke Worley make it to the finish line in the annual Wheel Run Together race.

The 2019 Wheel Run Together was held April 6. Several members of the West Michigan chapter of MyTeam Triumph — an athletic ride-along program created for children, teens, adults, and veterans with disabilities who would normally not be able to experience endurance events such as triathlons or road races — were among the 157 individuals who ran, walked, or hand-cycled their way through the Allendale Campus that day. Since the inaugural year of the Wheel Run Together in 1996, the event has raised more than \$100,000. Coleen Marie Davis, executive director of Alternatives in Motion, stated, “We are truly grateful for the students and participants for their continued support.”

Social Work Study Abroad – El Salvador

The El Salvador and Guatemala Study Abroad Program took its 22nd trip this past spring. Associate Professor Paola Leon, Ph.D., has co-led this program for the last three years with Julie Guevara Ph.D., professor of social work. Since 1997, more than 250 Grand Valley graduate and undergraduate students have engaged in a transformative journey that lasts beyond the two-week program. Students have consistently reported that this program moves them out of their comfort zones and challenges their world views, having

a lasting impact on how they perceive the world and themselves upon return. Students are challenged to translate knowledge and skills into action as they interact with organizations that focus on issues such as water scarcity, human trafficking, gender issues, community organizing, human rights, fair trade, and microenterprise. Students experience firsthand the needs of the people with whom they are interacting as well as their resiliency, great hearts, and hope for the future. As students engage in service learning and bear witness to people's stories, they learn about their own strengths, privileges, self-awareness, and power to influence change.





The social work study abroad program to El Salvador and Guatemala is an example of the service learning experiences students can participate in to enrich their education.

PRECEPTORS

Preceptors share their passion for their field with students, while encouraging and mentoring them through clinical assignments.







Adult Echocardiography Preceptor

Carrie-Ann Oestreich, RDMS (AE), received her bachelor's degree from Eastern Michigan University in exercise science with certifications from the American College of Sports Medicine as a certified exercise specialist and from the American Registry for Diagnostic Medical Sonography as an adult cardiac sonographer. Oestreich is the lead echo tech at Ann Arbor VA Medical Center. This comprehensive hospital environment offers a wide range of testing services that challenges students. Oestreich believes if students do well in this complex setting, they will be well-prepared to work in the general population.

Oestreich finds it rewarding to see students grow in confidence, knowledge, and skills during their time with her. Working with students also helps keep her skill set sharp and contributes to preventing job burnout for her staff. Safety of staff and students is a top priority for Oestreich. She stresses

the importance of proper ergonomics as the work is very physically demanding.

Oestreich's commitment to the students and their success is evident, as she often goes above and beyond to personally ensure that each student receives the best well-rounded

clinical experience. She continually fosters a student-centered learning environment and actively seeks opportunities for students to engage in interprofessional activities. Oestreich strives to ensure that students fully integrate cognitive, affective, and psychomotor skills within the clinical setting.

Occupational Therapy Preceptor

Molly Paggeot, B.S., OTR/L, CLT-LANA, has been a dedicated professional occupational therapist with Mercy Health for more than 15 years. She received her bachelor's degree from Western Michigan University then continued at Norton School of Lymphatic Studies to become a certified lymphedema therapist. She is also a member of the Lymphology Association of North America.

Paggeot's passion for the field and her patients is evident and shared with students who are fortunate to work with her. She has participated as a fieldwork educator/preceptor nearly

every year for more than 15 years. She has devoted time to continuing education opportunities as a fieldwork educator to ensure that she continues to use evidence-based practice methods to



mentor students. Paggeot is passionate about educating students and sharing her experiences allows her to give back to the profession.



Physical Therapy

Ashley Van Dam, PT, D.P.T., is an exemplary preceptor for the Department of Physical Therapy at Grand Valley, where she received a bachelor's (2007) and doctor of physical therapy degrees (2010). She currently works as an inpatient acute care physical therapist at Spectrum Health — Butterworth Hospital and serves as an adjunct faculty member for three GVSU physical therapy courses. As the center coordinator of clinical education (CCCE) for eight regional hospitals/rehabilitation centers, she provides more than 25 clinical education placements for Grand Valley physical therapy students annually.

She is a member of the GVSU Physical Therapy Advisory Board, the co-president of the Michigan Physical Therapy Association's (MPTA) Special Interest Group for Clinical Education, and a member of the S.E.E.D. of Hope Global Board of Directors (a nonprofit community Christian ministry). She is an American Physical Therapy Association

Credentialed Clinical Instructor; she received the MPTA Norene Clouten Outstanding CCCE Award in 2018; and Spectrum Health recently honored her as an Achieving Continuous Excellence Recipient.

When asked "How do you represent passion and commitment to your students and how do you demonstrate and inspire high standards as

an educator?" Ashley's response was: "I believe that we show how passionate and committed we are to our students by our tangible investment into our clinical education program. I am constantly learning and desire strongly to make each patient encounter, student experience, and instructor interaction better than the last."



Social Work Preceptor

Lesley Coghill, LMSW, is a licensed macrolevel social worker at Resilience: Advocates for Ending Violence. She earned her bachelor's degree in social work from Hope College and her master's degree in social work from Grand Valley. Coghill has served on the Lakeshore Alliance Against Domestic and Sexual Violence in Ottawa County since 2004. She has directly supervised 10 students throughout the years in social work, psychology, public health, and women and gender studies in primary prevention of domestic and sexual violence.

The mission of Resilience is to respond to, reduce, and prevent domestic and sexual violence. The practicum experiences for students at Resilience consist of evaluating prevention programming, co-producing data-driven reports, and/or working in direct service to support survivors.

As a preceptor, Coghill believes in nurturing the talents and skills of students to realize their

full potential, so they feel empowered to utilize their skills in practical settings and gain greater mastery of new skills and understanding. The organization is able to gain so much from students' insights, talents, and resources. Coghill finds it personally rewarding to work alongside students, learning from them, and exchanging ideas.

Coghill has been recognized by multiple

organizations for her work. In 2009, she received the Outstanding Agency Professional Award in Ottawa County from the Lakeshore Alliance Against Domestic and Sexual Violence for outstanding service. Then, in 2013, she received the Wave of Change Award from the Michigan Coalition to End Domestic and Sexual Violence for outstanding service in preventing domestic and sexual violence in Michigan.



Therapeutic Recreation Preceptor

Ron Coplin M.A., CTRS, works in Pine Rest's Partial Hospitalization Program, a high-demand setting. Despite setting demands, he has been a constant and strong preceptor for therapeutic recreation students for years, guiding and teaching many students through their final course to become a certified Therapeutic Recreation Specialist. Coplin received B.S and M.A degrees from Central Michigan University both in parks and recreation with an emphasis in therapeutic recreation. His education along with his years of experience helps to guide students through their 15-week internship.

As a preceptor, Coplin believes the future of therapeutic recreation lies with the young professionals entering the field. He strives to give students the best experience to prepare them for their futures as recreational therapists. His goal is to teach students how a professional recreational therapist should conduct themselves, while being able to maintain a sense of humor. Coplin appreciates all the hard work the universities

do in preparing young professionals, and enjoys working with the students to complete the academic preparation with practical experiences in the field. One of the biggest rewards Coplin gets working as a preceptor is seeing the growth in students from the start to the end of their clinical work.

Coplin encourages students to develop new programming ideas and aids them in cultivating their own personal

therapeutic styles.

Students have remarked that despite the fast pace of the program, Coplin remains a positive mentor who is available to provide guidance, knowledge, and encouragement. Faculty members in the therapeutic recreation program at Grand Valley greatly value all that Coplin continues to provide in the education of students and feel fortunate to have him as a preceptor.





COMMUNITY ENGAGEMENT (PARTNERSHIPS)

Partnerships with school districts, foundations, and hospitals provide education and training opportunities for students, and pathways to success for area residents.

W.K. KELLOGG FOUNDATION GRANT ENABLES GVSU TO SUPPORT BATTLE CREEK PUBLIC SCHOOLS



Grand Valley's Vice Provost for Health, Jean Nagelkerk, Ph.D., F.N.P., FNAP, and Director of Teaching Education in Grand Valley's College of Education Paula Lancaster, Ph.D., M.S., are co-principal investigators for the W.K. Kellogg Foundation grant.

Buoyed by a \$15.5 million grant from the W.K. Kellogg Foundation, Grand Valley has partnered with Battle Creek Public Schools (BCPS) to prepare middle and high school students for careers in science, technology, engineering, and mathematics (STEM), health care, and education. Highlights of the partnership are listed below.

- The grant will aid the talent pipeline and help reduce the shortage of professionals in education and health care careers. Collaboration and cross-sector partnerships will open the region to new possibilities for developing talent.

- Grand Valley's College of Education will offer professional development opportunities to BCPS teachers through new teacher mentoring, leadership development, and various programs to support curriculum development and instructional practices.
- Classroom assistants will receive support to become certified public school teachers, and pipeline programs will be established to bring more educators to Battle Creek.
- Middle and high school students enrolled in BCPS will be able to attend STEM-focused summer camps at Grand Valley.
- High school students will be able to enroll in selective university classes in education and health sciences.

GVSU President Emeritus Thomas J. Haas, Ph.D., said education positively affects the climate of a region. "We've had a long-standing relationship with the Kellogg Foundation, and we are honored they looked to us to provide targeted educational programs in Battle Creek," Haas said.

La June Montgomery Tabron, M.B.A., president and CEO of WKKF, said Grand Valley was selected to receive the grant

based on the unique needs of the Battle Creek community. Grand Valley has a strong track record of success and has seen great results in helping BCPS bolster teacher professional development, mentor new teachers, and boost teacher retention. Tabron added the grant builds on a series of long-term investments to support economic growth in the region. “This marks a vision to increase access to higher education options and support the community’s commitment to increase jobs and talent and bring a culture of vitality to Battle Creek,” she said. “Battle Creek is a community on the rise, as leaders throughout the city are working to ensure our children and families thrive.”

Maria Cimitile, Ph.D., M.A., Grand Valley provost and executive vice president for academic and student affairs, said the university looks forward to supporting the school district and community. “Our faculty and staff are dedicated to excellence in learning and community engagement. We

are excited to contribute our faculty’s expertise to help in the growth and economic health of the community,” she said.

A Grand Valley outreach center opened in Battle Creek in the fall of 2019.



Battle Creek students participated in STEPS Camp coordinated by the College of Engineering STEPS program — a STEM-related summer camp allowing young girls to explore engineering and science concepts.



Representatives of Grand Valley State University, Battle Creek Public Schools, and W. K. Kellogg Foundation gathered to mark the announcement of the \$15.5 million grant that will support the Battle Creek Public Schools in its educational transformation process.



Grand Valley student Alyssa Vodak (center) works with middle school students in a lab exercise as part of a special summer camp designed by Grand Valley's Public Health Department for Battle Creek Public School students.

Middle School Students Get Hands-on Experience Exploring Health Careers

From operating modern medical equipment to collecting data in a lab to understanding different types of physical therapies, about 80 middle school students explored health careers during a two-week summer camp at Grand Valley. For the first time, campers included 40 students from Battle Creek Public Schools (BCPS). Summer Health Activities and Professions Exploration, or sHaPe Camp, is supported by the College of Health Professions, the Regional Math and Science Center (RMSC), the Kirkhof College of Nursing, and the College of Liberal Arts and Sciences. The first week was funded by Mercy Health and Meijer. Campers explored the professions of dosimetry, occupational and physical therapy, physician assistant studies, speech language pathology, sonography, medical lab science, therapeutic recreation, public health, nursing, and athletic training.

The camp is part of the \$15.5 million grant that Grand Valley received from the W.K. Kellogg Foundation, enabling the university to partner with BCPS to help provide

middle and high school students pathways to careers in health care and education. Under the grant, BCPS middle and high school students can attend science- and technology-focused summer camps at Grand Valley.

sHaPe camp won the 2018 Michigan Department of Health and Human Services Hometown Health Heroes award. For more information, visit gvsu.edu/shape/.

Support for BCPS Teachers

Shortly after the award of the W.K. Kellogg Foundation grant, Grand Valley faculty and staff members designed and led professional development programs for Battle Creek teachers, working in collaboration with BCPS teachers and administrators. The programs included helping teachers prepare for the new magnet school, BCPS STEM Innovation Center, which opened in fall 2019 with 60 sixth graders. Additional cohorts of 60 students will be added until the center houses 180 students in sixth to eighth grades.

Kris Pachla, Ph.D., director of GVSU's Regional Math and Science Center, said faculty members worked with teachers and Battle Creek community partners to design an entire curriculum for the school. College of Liberal Arts and Sciences faculty members will spend time in the STEM Innovation Center's sixth grade classrooms to support teachers throughout the academic year.

Additionally, Grand Valley faculty, facilitated by Kelly Margot, Ph.D., assistant professor, have led professional development on project-based learning for 40 BCPS middle and high school teachers. Paula Lancaster, Ph.D., M.S., Director of Teaching Education, in Grand Valley's College of Education, said faculty members will support teachers as they implement one project-based learning unit within the next academic year. Another component of the grant is to establish a pipeline program of teachers for BCPS. Student teachers have been recruited and will be matched with strong mentor teachers.

Mary Free Bed Rehabilitation Hospital and GVSU Neurologic Residency in Physical Therapy Receives ABPTRFE Accreditation

The Mary Free Bed (MFB) Rehabilitation Hospital and Grand Valley State University neurologic residency in physical therapy is in its 17th year of partnership in providing high-quality, postprofessional residency education. The neurologic residency program received accreditation by the American Board of Physical Therapy

Residency and Fellowship Education (ABPTRFE) in fall 2018.

The residency program is led by MFB Director Christina Platko, PT, D.P.T., N.C.S., and assistant director and Grand Valley faculty member Cathy Harro, P.T., D.P.T., M.S., NCS. The residency's mission is to provide advanced clinical training in an integrated environment of professional mentorship, clinical excellence, research, and education. The program is one of 49 accredited neurologic residency programs in the country and the only program in the state.

During the program, residents work with expert clinical mentors in the field of neurologic physical therapy and provide care for more than 100 patients in the various areas of the MFB Hospital Organization. Additional collaborations with Hope Network and Mercy Health-Saint Mary's Hospital also support the clinical residency.

To learn more about the program, visit maryfreebed.com/neuro-pt-residency.



Paige Smith and Christine Platko from Mary Free Bed assist patient Julie Rickfelder with rehabilitation.

Lowell Wellness Camp Impacts Area Youth

In partnership with Lowell Community Wellness, the Grand Valley Department of Public Health designed, implemented, and evaluated two offerings of an after-school wellness camp at Cherry Creek Elementary School. In the fall, a once-per-week camp that lasted eight weeks was offered to elementary boys and girls in second-fourth grades. It was offered again in the winter in a condensed four-week program to further impact a greater number of interested students. The wellness camp was funded by a nearly \$40,000 grant by Lowell Community Wellness. Seven Master of Public Health (M.P.H.) students were involved as educational coordinator and wellness coaches. By delivering weekly lessons themed as Eating Better, Moving

More, and Smiling Often, data indicated that this curriculum impacted students' attitudes and behaviors on healthy eating, physical activity, and mental health respectively.

"We haven't found anyone else in the state who has taken this approach," said Jodi Seese, Lowell resident and Wellness Camp's educational director. "This program is the culmination of a five-year partnership with the of Lowell community. Our program worked on a community-wide needs assessment survey that identified key issues related to youth and aimed to make an impact with that data," stated Associate Professor and Department Chair of Public Health, Ranelle Brew, Ed.D. "Educational lessons impacted more than 60 students and will be replicated in the remaining Lowell elementary schools in 2019-2020."



Eating Better is one of the weekly lessons that is part of the Lowell Wellness program.

Grand Valley Partners with Spectrum Health on Ethics Conference

Health care providers often face decisions that require ethical considerations involving factors such as personal beliefs, religion, and patient rights. Grand Valley and Spectrum Health partner each spring to invite the medical community, students, and the general public to explore and discuss the significant, contemporary ethical issues with experts

You Want Me To Do What? When Values Collide in Health Care was the title of the spring 2019 West Michigan Health Care Ethics Conference held at Grand Valley's L.V. Eberhard Center. Speakers included Michael Robinson, Ph.D., Chapman University; Bryan Pilkington, Ph.D., Seton Hall University; Megan VerMerris, J.D., Spectrum Health; and Caroline Ring, D.N.P., M.S.N., RN, Spectrum Health.

The afternoon conference was the precursor to the long-standing DeVos Medical Ethics Colloquy evening event featuring nationally recognized speakers on this timely topic. The colloquy, entitled *Ethical Issues of Conscientious Objection*, featured Lauris Kaldjian, M.D., Ph.D., University of Iowa, and Nancy Berlinger, Ph.D., The Hastings Center.

Information on both the ethics conference and the colloquy can be found at gvsu.edu/colloquy/.



Jean Nagelkerk, GVSU's vice provost for health, welcomes an audience of more than 200 to the spring 2019 West Michigan Medical Ethics Conference.



Audience members interact with local, regional, and national experts as they delve into the most critical ethical issues in health care.



Grand Valley Simulation Center is instrumental in helping MHM's nurses practice and perfect their skills.

Mercy Health Training Simulation

Grand Valley and Mercy Health Muskegon (MHM) partnered to provide experiential, simulation-based, training opportunities to professional nurses. MHM's nurse extern program is an optional training opportunity offered to nurses hired to work within MHM's health care facilities. The program is strategically designed to help nurses hone their clinical skills, recognize and understand Mercy Health patient care protocols, and develop confidence in the practice of patient care with the goal to improve patient care outcomes and safety.

Much of the training in the MHM's nurse extern program is offered onsite at the hospitals. However, to expose program participants to a wide range and varying patient care scenarios, MHM nurse educators have partnered with Grand Valley to develop and integrate patient care simulation activities within the nurse extern program. The simulations are carried out at Grand Valley's Simulation Center. Program participants work together to develop patient care plans, participate in patient care simulations, and review decisions and actions conducted during the simulations, learning from what went well and what could have been done differently. Since June 2018, more than 45 participants in Mercy Health's nurse extern program have attended multiple simulation training sessions at GVSU's Simulation Center.

Monthly Health Forum Examines Local Community Issues

The Health Forum of West Michigan brings together regional communities to discuss challenging and compelling contemporary health-related issues. The 2018-2019 series addressed water quality and safety, human trafficking, the cost of prescription drugs, organ donation and transplantations, and suicide and depression. Panelists included health care experts, state and local government representatives, and service organization leaders.

The events are hosted by the Office of the Vice Provost for Health at Grand Valley and supported by the Midwest Interprofessional Practice, Education, and Research Center, Michigan State University College of Human Medicine, Grand Rapids Chamber of Commerce, and Michigan Center for Clinical Systems Improvement (MI-CCSI). The event draws an audience of 150-300 people, including health care professionals, business and community leaders, educators and students, and members of the general public.

Health Forum of West Michigan is held on the first Friday of each month throughout the academic year and is sponsored by Blue Cross Blue Shield of Michigan. Information can be found at gvsu.edu/vphealth/.

Steve Alsum, executive director of The Grand Rapids Red Project, discusses community action needed to combat the opioid crisis.



Panelists Gregg Wellman, Ph.D., Ferris State University; Eric Roath, Pharm.D., Spartan Nash; and Atheer Caddis, Pharm.D., Blue Cross Blue Shield of Michigan; address the high cost of prescription drugs.



Meeting the Needs of Underserved Populations

Nestled in downtown Grand Rapids is the GVSU Family Health Center, an academic nurse-managed center operated by Grand Valley's Kirkhof College of Nursing. The center provides primary and preventative care for faculty and students, as well as members of the community, including vulnerable populations living in the area. The center is aligned with the Josiah Macy Jr. Foundation recommendations around "education for the care of underserved populations" and serves as an important clinical site for Grand Valley students in nursing and other health-related disciplines.

"We are actively working toward a clinical site model that fosters a more robust and hands-on interdisciplinary experience for students," said Mark Contreras, D.N.P., RN, NP-C, affiliate clinical faculty member at the health center. "Students not only learn about the delivery of quality health care, but also how to address the social determinants of health that undeniably contribute to the overall well-being of a patient."

Partnerships with the Grand Rapids Housing Commission and Dwelling Place are designed to establish living in place services for seniors and with HQ, a center for runaway and at-risk youth in Grand Rapids, to bring primary care services to the populations they serve.



Health care professionals at the GVSU Family Health Center are committed to providing compassionate and quality care to the community.



ALUMNI

Michigan's health care leaders build foundation for career success with degree from Grand Valley.



Leslie Jurecko, M.D.

**Senior Vice President, Quality,
Safety, and Experience,
Spectrum Health**

It is common for large health care systems like Spectrum Health to tap physicians for leadership roles for patient experience or quality improvement initiatives.

Leslie Jurecko, '93, learned it may be rare, however, for a physician to have the business knowledge and financial prowess to be impactful leading such work.

Jurecko earned a medical degree from Wayne State University and completed a pediatric residency at Northwestern University. She was named medical director for quality and safety at Spectrum Health's Helen DeVos Children's Hospital in 2013 and senior vice president for quality, safety, and experience in 2017. "Within health care leadership, I noticed skills that were missing," she said. "In premed classes and during medical school, I was not exposed to finance, economics, or strategy courses. Without having that knowledge, I felt I couldn't be a truly effective leader."

Jurecko took action in 2015 and enrolled in Grand Valley's health care executive M.B.A. program through the Seidman College of Business. A

collaboration between Spectrum Health and Grand Valley, the 22-month program was created in 2014 for hospital, clinical, and administrative leaders. Its curriculum applies core M.B.A. principles to relevant health care challenges faced by integrated health systems.

"It was a wonderful experience. My cohort of 22 people included clinicians, leaders from Priority Health, operations, and nursing," Jurecko said. She immediately noted differences between the M.B.A. program and a traditional medical school education. "There was an emphasis on small-group learning. This was not typical during my years in medical school, so that was challenging for me in the beginning," Jurecko said.

Even while immersed in the program, Jurecko saw how quickly theories learned in class applied to her work responsibilities. Her capstone project is an example. Jurecko and her small team created a career-ladder plan for Spectrum Health's entry-level employees in order to open advancement doors for them within the organization. "They are the heart of our organization, and we wanted to provide them with an opportunity to stay at Spectrum Health," she said, adding portions of the plan have been adopted by the organization.

While she was medical director, Jurecko and her team introduced and implemented the use of *Kamishibai* cards, or K-cards, at Spectrum Health. *Kamishibai* is a Japanese term for

storytelling. The automaker Toyota introduced K-cards as a way to perform audits during the manufacturing process. The K-cards at Spectrum are used during rounding to manage safety and quality; they include short statements that read like a checklist, one side of the card is green, and

the other red to indicate improvement is needed.

Jurecko was 10 years old when her father was in an accident that left him a quadriplegic. She said it was during that time spent in the hospital when she realized a possible

career path. “Even in the fourth grade, I had a lot of questions about the care he received. His care certainly was not frictionless, and I realized then I wanted to do something in the medical field and improve the care that I witnessed,” she said.



Kimberly Maguire, M.B.A. B.S.N., RN, HCM, NEA-BC

**Chief Nursing Officer, Vice President
Patient Care Services
Mercy Health, Muskegon**

For someone who did not set out to become a nurse, Kimberly Maguire, '93, has served in nearly every role within the profession, from candy striper to chief nursing officer. “I have always felt somewhat guilty that I never experienced a calling to be a nurse, but I have never regretted my career decision,” Maguire said. She had planned to be a teacher

and initially majored in biology at Grand Valley, but teaching jobs were scarce in the early 1990s. “Both my sisters are nurses, and I had all of these science courses. I knew there were all kinds of different roles in nursing, working in a hospital, doing research, teaching, so I felt very comfortable with my decision to switch to nursing,” Maguire said.

A native of Muskegon, Maguire recalled taking nursing classes and completing clinical assignments in Grand Rapids then driving back to Muskegon for her job as a patient care assistant at what was then General Hospital. The city once had four hospitals and the 2008 merger of Mercy/General-Hackley resulted in one system owned by

Trinity Health, a nonprofit Catholic health care provider. “I knew I wanted to work for a faith-based organization. Faith has been very important to me all my life, and I wanted to work at a hospital where it's OK to talk to patients about spirituality. It goes hand-in-hand with talking to them about their health, it's treating the whole person,” she said.

Maguire was named chief nursing officer (CNO) in 2006 and is a CNO with one of the longest tenures in Trinity Health's national system. She earned a Master of Business Administration degree from the University of Phoenix and was a fellow in the Wharton Nursing Leaders Program at the University of Pennsylvania. The program is sponsored

by Johnson & Johnson and brings nurse executives from across the country together for an intensive month-long leadership course.

In her current role, Maguire has been deeply involved in a three-phased hospital construction project that is scheduled for completion in 2020. “It will be so nice for Muskegon,” she said. “At the end of the day, it’s not just bricks and mortar. It’s a setting that will provide health and healing at the highest level of personalized care to our patients and families during critical points in their lives.”

She cites the nurse-led primary care clinic on the campus of Muskegon Community College (MCC) as the project she’s most proud of. The Mercy Health Partners Primary Care Center is a nurse-managed center housed in MCC’s Health and Wellness Center. A collaborative effort among MCC, Grand Valley, and Mercy Health, the center opened in 2018, a decade after Maguire, Kirkhof College of Nursing Dean Cynthia McCurren, and other leaders started discussing the idea. The center offers primary care services to MCC students, faculty and staff members, and the public.

“It was 10 years in the making, and it fills a need because of the lack of providers on the east side of town,” she said. “In addition to providing much-needed care, the goal for the center is to become an educational hub for students.”

“I have so many fond memories of GVSU. It was a great place to receive my education, which has allowed me to make a meaningful difference in the community where I work and live.”



Steve Polega, M.H.A., RN

Chief Nursing Officer

Metro Health-University of Michigan Health

When Steve Polega, '17, addressed 400 Metro Health nurses during an event celebrating National Nurses Week, he asked them to remember why they became nurses. “For me, it was about connecting with a patient and making their hospital stay better,” he said. Then Polega told a story of a job he held while attending Grand Rapids Community College. He was an aide to a young boy who was severely autistic. The family would often visit Lake Michigan and

Polega’s job was to wade into the water ahead of the boy, stopping him from continuing to charge into the water and potentially drown.

“Years after that, I’m working in the emergency department and a mom and dad come in with

their child, who had a disability that appeared to be autism. I knew from my training that I had

to slow down with this patient and keep talking to him. I got an IV going, was able to draw labs, and

gave medication without an incident. Later, the mom said no one had ever treated their son like a person before,” Polega said. Polega reminded the audience of Metro Health nurses that they chose nursing because they wanted to help people. “I also talked to our nurses about meeting people where they are and making things better for the patient and family,” he said.

After graduating from high school, Polega, who was the first in his family to attend college, enlisted in the U.S. Navy to earn money for tuition. He earned an associate degree from Grand Rapids Community College, a bachelor’s degree in health science from Grand Valley, a bachelor’s degree in

nursing from Andrews University, and a Master of Health Administration degree from Ohio University. “I have such favorable memories about Grand Valley,” he said. “The people I met helped me figure out what I wanted to do. I had good mentoring and tutoring, and I learned to be a better student.”

Polega said he enjoys meeting Grand Valley nursing students at Metro Health. “I have a lot of respect for the work they do, and they are always well-prepared,” he said. “I’m thrilled to see them on their clinical assignments here.”

He has worked for Spectrum Health in Grand Rapids, Ascension Borgess, and Bronson Methodist

hospitals in Kalamazoo, and, now, Metro Health. “They are all top hospitals and health systems, but the culture here at Metro Health-University of Michigan Health, that is second to none,” he said.

Before moving to a nursing leadership role, Polega had nursing experience in telemetry, intensive care units, and emergency departments. He said he enjoys the challenges of an administrative position but does miss direct contact with patients. “I make rounds on patients every day, and it is usually the highlight of my work day, connecting with people to hear their stories of the incredible care we provide,” Polega said. “Patients and families are always appreciative.”



Mark Smith, M.D.

***Vice President of Provider Affairs/Chief Medical Officer-Central Market, Henry Ford Health System
Senior Vice President, Medical Affairs, Chief Medical Officer, Henry Ford Allegiance Health
Chief Executive Officer, Henry Ford Allegiance Medical Group***

Mark Smith’s career has come full-circle and led him back to his hometown of Jackson. Smith, ’91, earned a bachelor’s degree in biomedical sciences from Grand Valley in 1991 and then a medical degree from Wayne State University. He spent nearly two decades as an emergency department physician before transitioning to increasingly demanding

administrative roles. In 2008, Smith began working at Henry Ford Allegiance Health, in Jackson, and was named chief medical officer in 2017.

“Now I’m back in Jackson, where I went to high school, and it’s very gratifying to serve the community where I grew up,” he said.

He is deeply involved in a Jackson-area collaboration among physicians, community leaders and Allegiance Health to establish a Clinically Integrated Network (CIN) focused on improving the overall health of residents while reducing costs. The Jackson Health Network, one of Michigan’s first CINs, considers how social determinants like economic stability, environment and education affect a person’s health.

Smith gave an example of how the network works. A patient was treated numerous times in the hospital’s emergency department for asthma. Using the network’s community resources, a home visit revealed that the patient’s furnace filter had not been changed in years.

“For the cost of a \$30 furnace filter, the patient’s asthma improves. It’s about us thinking out of the box and using local resources to improve the health of a resident,” he said.

Smith has advocated for opioid reform and helped write prescribing guidelines for emergency department doctors while serving on the board of the Michigan College of Emergency Physicians. In his role at Allegiance Health, Smith is continuing the same work with primary care physicians.

In April, Smith received the Distinguished Alumni Award from Grand Valley’s Alumni Association at a commencement ceremony. The award is presented to an alumnus or alumna who excels in their profession.

Smith said he was very humbled by the recognition. He was also pleasantly surprised that the commencement speaker was Brian Kelly, University of Notre Dame head football coach. Smith played football (offensive tackle) for Grand Valley when Kelly was the defensive coordinator before serving as Laker head coach from 1991–2003.

“It was great to see Brian again, and I had a great experience playing football. It taught me a lot of leadership skills,” Smith said.

There was a gap for Smith between graduating from Grand Valley and starting medical school, so the biomedical sciences faculty tapped him to teach an anatomy lab in the winter semester. “I had so many great professors at Grand Valley. My education and the experiences I had helped set a foundation for me to thrive,” he said.



RESEARCH AND GRANTS

Faculty researchers earn grants from NIH to assist patients with dementia, support medical device production, and improve health of mothers and children.

KCON PROFESSOR SPEARHEADS \$2.2 MILLION NIH GRANT

Imagine the hallways within an assisted living or long-term care facility: long and lined with doors, often making one hallway indistinct from another. Now imagine attempting to navigate those hallways as a resident with dementia or Alzheimer's disease.

Rebecca Davis, Ph.D., RN, professor of nursing in the Kirkhof College of Nursing, spearheaded a \$2.2 million grant from NIH to conduct an intervention study over five years, testing if visual cues will help residents effectively find their way.

This study advances Davis' research on wayfinding, the ability to find one's way. In 2013, Davis secured an NIH grant to conduct a study with senior citizens, some with Alzheimer's disease, testing how they found their way using a virtual reality environment and eye-tracking goggles. Her initial study began in 2008 and was funded by the John A. Hartford Foundation.

The current intervention study will be conducted in 12 long-term care facilities in West Michigan and Cleveland.

Davis said her team will recruit nearly 140 people within the facilities for the study. "Six times over a year, they will be asked to find their way to certain places within their community," she said. Some facilities will have enhanced signs and decorative elements (like a large painting) added, others will incorporate signage and education, and a control group will have no enhancements.

The issue, Davis said, is many long-term care facilities were constructed to meet multiple needs of residents and, of course, to be aesthetically pleasing. "Signage is often hidden and designers are brought in to make the building look less institutional. A giant photo or large signs at the end of a hallway may not be eye-pleasing," she said.

For residents with dementia, not remembering how to get to the dining hall, for example, creates feelings of anxiousness and frustration and can cause them to limit their life space, which Davis termed as the area where a person lives.





“Staff at facilities recognize it as a huge problem, so they are very willing to participate in this study and see if their residents improve,” Davis said.

Davis and her team plan to see if changes in wayfinding and life space occur due to the interventions in the study, because over a year many people experience changes in their abilities. “One question we have is if we intervene with cues and education, will their wayfinding abilities get better or will they stay the same?” she said.

The grant Davis received was from NIH’s National Institutes of Aging and is in the most prestigious category of funding, R01. It’s the first time a Grand Valley researcher has secured R01 funding.

Davis said R01 funding is desirable for clinical trials such as this one due to the complexity of the study. “We’re really pleased to receive this. It’s a very different study on how environmental changes can influence behavior, and it is in line with what nurses and other health care workers do to improve the quality of life for patients with dementia,” she said.



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GVSU and Tulane Researchers Report Increased Access to Health Care

Researchers from Grand Valley's Seidman College of Business and Tulane University report more people in West Michigan and Detroit have access to health care because of the Affordable Care Act and Medicaid expansion. Kevin Callison, Ph.D., assistant professor of public health and tropical medicine at Tulane, and Sebastian Linde, Ph.D., M.Sc., M.Phil., assistant professor of economics at Grand Valley, reported results from the Health Check report, which analyzes health care access, risk factors and demographic data from Kent, Ottawa, Allegan and Muskegon counties and compares data to U.S. and Michigan results.

Callison said the number of adults in West Michigan and Detroit lacking health insurance decreased in 2016, the latest reporting year, from 2011 figures. In West Michigan, 7.3 percent of adults lack health insurance, compared to 12.3 percent in 2011; in Detroit, 8.6 percent of adults lack health insurance, compared to nearly 17 percent in 2011.

Callison and Linde also found medical expenditures for chronic conditions decreased in West Michigan. The average expenditures for someone diagnosed with coronary artery disease fell by 13 percent from 2016 to 2017. They noted, however, data received from Blue Cross Blue Shield of Michigan, Blue Care Network, and Priority Health does not allow for determining causes of the decline.

The entire report is posted online at gvsu.edu/vphealth/. Data was provided by Blue Cross Blue Shield of Michigan, Blue Care Network, and Priority Health.



Kevin Callison, assistant professor at Tulane University, presents the findings of the year-long Health Check study.



3D printing technology will be the focus of research and investigation made possible by a grant from the Grand Rapids SmartZone.

GVSU Applied Medical Device Institute Awarded \$500k Grant for Medical Device Manufacturing Study

Grand Valley's applied Medical Device Institute (aMDI) was awarded \$500,000 by the Grand Rapids SmartZone to complete an investigation into the viability of using specialized 3D printing technology for medical device production. The aMDI, established in 2016, provides support to researchers, engineers, medical professionals, and business and entrepreneurial professionals using an integrated approach that includes intellectual property, business review, and mentoring support.

The grant will allow aMDI, in collaboration with MediSurge and Carbon, Inc., to create production-grade medical devices that can be implanted into and under the skin. Upon completion of the study and determining

scalability for 3D printing of medical devices at production volumes, MediSurge would be the first medical device manufacturing company in the Midwest to offer this kind of service.

The grant also supports student learning and development, as faculty and more than a dozen graduate and undergraduate students from Grand Valley's Seymour and Esther Padnos College of Engineering and Computing will have opportunities to engage with the aMDI team on research projects. "We are thrilled to be the first university in the Midwest to provide students with direct access to this type of innovative technology on campus," said Brent Nowak, Ph.D., executive director of aMDI.

Learn more at gvsu.edu/amdi/.

Maternal and Child Health Training Program

The overarching goal of the Maternal and Child Health (MCH) Training Program is to improve the health and well-being of mothers, children, and families through the education of the MCH workforce. The MCH Training Program is funded by the Title V Block Grant from the Health Resources and Services Administration (HRSA) and is a collaboration between co-primary investigators Joan Borst, Ph.D., from the School of Social Work at Grand Valley, and Courtney Byrd Williams, Ph.D., at the University of Texas, School of Public Health.

The program works to reach MCH professionals in rural areas who have limited access to relevant continuing education. The program provides education, both online and in-person. The online training

modules make continuing education accessible for MCH professionals who serve diverse MCH populations in isolated, geographic, and rural areas.

As of June 30, 2019, program participation has included 2,160 enrollments with 1,225 total course completions and 3,920 total module completions.

In addition to the training program, an MCH Fellowship Program provides MCH-specific education, leadership development, and practical experience to graduate students. Social work students who are interested in public health careers can connect with Borst about how to apply for a fellowship.

Collaboration with Spectrum Health Innovations Gives Engineering Students Real-world Experience

A unique collaboration among Grand Valley, Kendall College of Art and Design (KCAD), and Spectrum Health Innovations (SHI) has provided students opportunities to design and manufacture products for commercialization. The collaboration started in 2018 when SHI received a \$727,000 grant from the City of Grand Rapids SmartZoneSM's Local Development Finance Authority (LDFA) to support the development of new health care solutions.

Under the grant, Brent Mulder, Ph.D., M.B.A., SHI president, collaborated with faculty members and students from Grand Valley and KCAD to create novel technologies to solve existing health care problems.

John Farris, Ph.D., Grand Valley professor of engineering, said each of the three projects in the LDFA program resulted in filing a provisional patent. Should the product result in commercial success, Grand Valley students, who are named inventors, would benefit from its revenue.

Casey McKellar was a student engineer who collaborated on a prototype device that traps and removes condensate from a ventilator circuit, eliminating the need for respiratory therapist intervention and reducing the instances of ventilator-associated pneumonia. He said working as a student on product design and manufacturing was a terrific real-world experience. "My role is to take a deep dive into the problem through interaction with the customers and stakeholders, and take a design to manufacturability," McKellar said. "This project allowed me and my team to practice all of these skills in situations reaching far beyond the classroom."

Spectrum Health Innovations contributed to this article.



Congratulations to Three Faculty Fulbright Awardees

Three Grand Valley faculty members have earned Fulbright Scholar awards from the U.S. Department of State to teach or conduct health-related research overseas in the next academic year. They are Dianne Conrad, associate professor of nursing; Lara Jaskiewicz, associate professor of public, nonprofit, and health administration; and Rachel Powers, professor of chemistry.

Conrad will spend the Fall 2019 semester in Dublin, Ireland, at Dublin City University, where she and a colleague from the University of Detroit Mercy (who will follow in spring 2020) will assess the country's regional health care delivery system and its status related to advanced practice nursing roles. Conrad said she hopes to develop a collaboration among Grand Valley and the two other institutions.

Jaskiewicz will spend an academic year at Vilnius University in Lithuania, serving as a guest lecturer and providing consultations for graduate students conducting qualitative research. Jaskiewicz's research project focuses on exploring barriers that limit the growth of health and wellness nonprofit organizations, which might be associated with high rates of alcoholism and suicide within the country.

Powers will spend part of the Winter 2020 semester in Argentina at the Universidad de Buenos Aires to advance her current research on antibiotic resistant bacteria. Powers will also develop and teach a course on the structural aspects of antibiotic resistance using molecular graphics programs to analyze structures of proteins that play a role in resistance.



Dianne Conrad, D.N.P., M.S.N.



Lara Jaskiewicz, Ph.D., M.P.H., M.B.A.



Rachel Powers, Ph.D.

For a listing of publications and presentations, please go to gvsu.edu/vphealth/publications/.

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