GRAND VALLEY STATE UNIVERSITY

2018 Annual Health Report Transforming Health Care

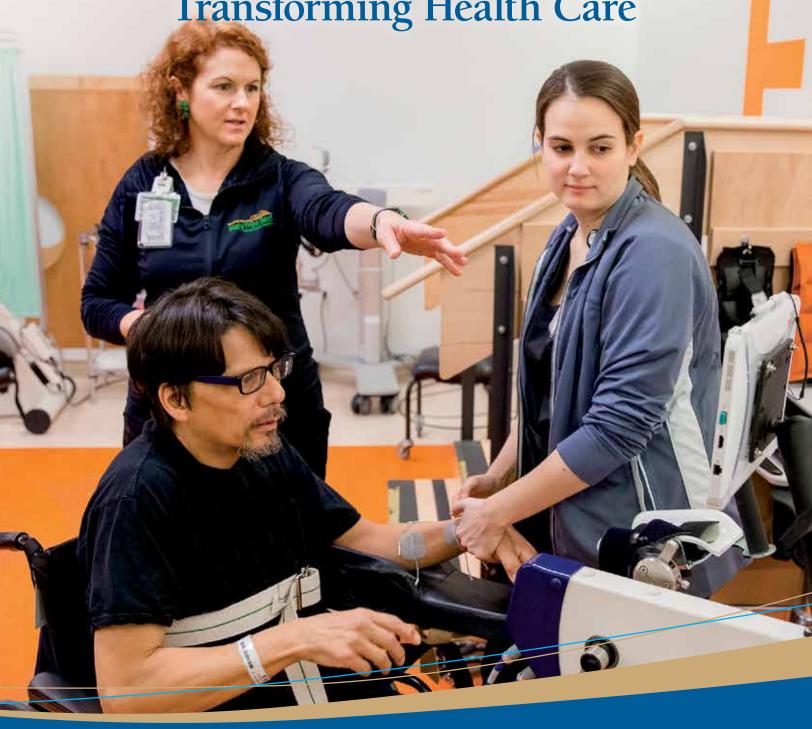




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LETTER FROM GRAND VALLEY STATE UNIVERSITY'S HEALTH LEADERSHIP TEAM

We are pleased to share the fifth edition of the Grand Valley State University *Annual Health Report*, a reflection of the many health-related programs, collaborations, and contributions from across our university dedicated to addressing the current and future health needs of our communities.

Grand Valley continues to serve the needs of our communities by providing more highly-trained health care professionals in the West Michigan region than any other educational institution. As the leading provider of health care professionals in West Michigan, our presence on Grand Rapids' medical mile and proximity to exceptional health care systems and research institutes brings incredible opportunities for collaborative partnerships and innovations that are improving the quality and safety of health care in our region and beyond.

Critical to our success is the engagement of health care and business professionals who serve as preceptors and internship supervisors ensuring that our students' education is enriched through valuable experiential learning that is necessary to become effective health care providers. In addition, our faculty who believe that research experience is an important aspect of a quality education inspire and encourage our students to engage in active scholarship to enhance understanding and discovery.

An important highlight this year is the opening of Raleigh J. Finkelstein Hall, the most recent expansion of our Health Campus. Thanks to support from 1,100 donors, the new 84,000 square foot facility provides additional opportunities for students to engage in interactive learning and work in interprofessional teams. This building will support the more than 1,500 simulated clinical events that occur annually on the Health Campus.

Grand Valley continues to attract highly-talented students to the West Michigan area who are interested in pursuing careers in health care. To prepare these students and to support the workforce demand in health care, our Health Campus expansion will continue with the construction of the Daniel and Pamella DeVos Center for Interprofessional Health, a \$49 million facility scheduled to open in 2021, will include an additional 15 classrooms and 14 interactive laboratories designed as interprofessional team environments.

We are proud of our accomplishments and excited about the future! Thank you for your interest in and support of Grand Valley's health-related programs and initiatives. Please use the directory at the back of this publication to contact us with questions or recommendations about future collaborations.

Respectfully,

Jean Nagelkerk, Ph.D., F.N.P., F.N.A.P.

Vice Provost for Health

Diana Lawson

Dean, Seidman College of Business

Roy H. Olsson Jr.

Dean, College of Health Professions

15 ay H Oleson /

Frederick J. Antozak
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



SELECT HEALTH-RELATED PROGRAMS AT GRAND VALLEY STATE UNIVERSITY

Grand Valley offers health-related programs that are in demand. Rigorous classroom instruction and clinical training challenge the best and brightest students who are admitted into these programs. The outcome? Graduates who are immediately ready to make meaningful contributions in an extensive assortment of health professions.

Doctor of Audiology Program

One of Grand Valley's newest programs in the health professions is the Doctor of Audiology (Au.D.), an intensive three-year postbaccalaureate degree program that prepares students to work with individuals experiencing hearing loss and/or balance problems.

The prevalence of hearing loss in Americans has doubled in recent years. One to six per 1,000 newborns are identified with congenital hearing loss, which significantly impacts their speech and language development, academic achievement, and psychosocial maturity throughout childhood and into adulthood. A number of factors contribute to hearing loss in adults, with age being the



largest contributor. According to the American Speech-Language-Hearing Association (ASHA), "Regardless of age, men are about twice as likely as women to have hearing loss, even when accounting for occupational noise exposure. Other factors that are correlated with hearing loss include race/ethnicity, education level, and use of firearms."

The National Institute on Deafness and Other Communication Disorders (NIDCD) estimates that "...approximately 40 percent of the population in the United States will experience some form of dizziness or balance difficulty over the course of a lifetime." Dan Halling, Ph.D., director of the audiology program, reports that dizziness and balance problems are among the most frequent complaints of patients over age 70.

To help meet the needs of individuals with hearing impairment or balance disturbances, Grand Valley has significantly invested in the creation of the audiology program with state-of-the-science instrumentation and facilities to provide hands-on experience for students and to advance the scientific exploration of processes associated with hearing and balance. The program will be located in the new Raleigh J. Finkelstein Hall in downtown Grand Rapids. Students from any bachelor's degree program are welcome to apply for the Doctor of Audiology program. Pending accreditation by the American Speech-Language-Hearing Association, the start date is scheduled for Fall 2020. For more information about this degree, visit gvsu.edu/csd or contact Dan C. Halling, Ph.D., CCC-A., at halling@gvsu.edu.

One to six per 1,000 newborns are identified with congenital hearing loss.

Biomedical engineering classes include human motion, bioelectric potentials, and medical device design.



Computational simulation is one way biomedical engineers develop technological solutions in health care.

Biomedical Engineering

Biomedical engineers apply the design, analytical, and problem-solving skills acquired in engineering training to improve health and quality of human life. At its core, biomedical engineering is a highly interdisciplinary and collaborative field. Biomedical engineers work with health care professionals, applying advanced technological solutions and innovative rehabilitation devices to clinical problems. Collaborations with physiologists and molecular biologists for the study of complex disease mechanisms are invaluable for the development of new drugs and the understanding of physiologic systems.

The biomedical engineering program at Grand Valley started in 2010 with the introduction of the biomedical engineering minor for engineering undergraduates majoring in computer, electrical, mechanical, and product design and manufacturing engineering. In 2012, a master's degree program in biomedical engineering was added with help from a National Science Foundation grant. Today, with classes in mechanics of human motion, bioelectric potentials, and medical device design, the program not only challenges students with technical breadth and depth, but also provides them with the necessary information to successfully bring biomedical products to market. This translational

emphasis has been the hallmark of the curriculum since the program's inception.

Students have worked with community partners, such as Spectrum Innovation and the imaging facility at Van Andel Research Institution, to pioneer designs and techniques for improving diagnostic and monitoring devices. Faculty have collaborated with colleagues in mathematics to study epilepsy and with physical therapists to study neural development in children with multiple developmental disorders. Grand Valley graduates are working in industries such as Stryker and MedBioInc, and some have been accepted to prestigious doctoral programs at Northwestern University, the University of Pennsylvania, and Marquette University.

In the future, the Seymour and Esther Padnos College of Engineering and Computing plans to develop an undergraduate major in biomedical engineering, which would be the only one in West Michigan, and to allow the program to provide more career options for area students while leveraging the emerging health care industry in the region.

For more information, please visit the biomedical engineering program website at gvsu.edu/engineering/biomed or contact Samhita Rhodes, Ph.D., at rhodesam@gvsu.edu.

Master's and Specialist Degree Programs in School Psychology

Schools across the nation confront the difficult task of meeting the needs of students with increasingly diverse academic, social, and emotional needs. They strive to raise achievement for all students, including those who may present learning or social difficulties. School psychologists play integral roles in developing effective educational systems to meet the needs of all students. The school psychology program at Grand Valley prepares students to be leaders and innovators in the educational environment by bringing evidence-based practices into schools and making positive impacts on students.

The relatively new program is an offering of the College of Liberal Arts and Sciences. Students earn both a master's specialist degree in school psychology and a graduate certificate in applied behavior analysis upon completing the three-year program. Throughout the program, students apply content and concepts learned in coursework by working in local schools through practica and a final, year-long, full-time internship.

Admission to the program is increasingly competitive, and the application pool

continues to grow each year. Graduates work in local schools, schools in other parts of Michigan, and even other states. More than 95 percent of Grand Valley psychology students obtain competitive, paid internships.

In 2018, Grand Valley faculty and students have made an impact on local, regional, and national schools. Students have presented at the annual meeting of the National Association of School Psychologists, served of the board of the Michigan Association of School Psychologists, and volunteered in local districts to assist with reading assessments. Erika Schmitt, a third-year student, received a Fulbright award and is currently teaching in Brazil.

Faculty members conduct applied research in local schools and serve in state association leadership positions. Grand Valley Professor Amy Matthews is the director of the Statewide Autism Resources and Training project (START), funded by the Office of Special Education, which provides professional education, technical assistance, and statewide coordination for students with autism spectrum disorder. She is also vice chair of the governor's Autism Council. Amy Campbell, the director of the graduate program in School Psychology, served as the president of the Michigan Association of School Psychologists.

More than 95% of Grand Valley school psychology students obtain competitive, paid internships.



Grand Valley school psychology students receive extensive training through coursework, practicum, and research

The exercise science program offers both clinical and health fitness emphases.

Exercise Science Program

All students in the exercise science program receive a foundation in exercise physiology, prescription, and testing, as well as experiential learning opportunities.

The exercise science major is one of four majors in the Movement Science Department, housed in the College of Liberal Arts and Sciences. The undergraduate exercise science program is the fifth largest major at Grand Valley State University (more than 1,050 students) and has two distinct emphasis areas, clinical exercise science and health fitness instruction. Students pursuing the clinical emphasis focus on a science-intensive approach to understanding the role of exercise and physical activity as a tool for training, rehabilitation, and healthy lifestyles. Often

these students plan to enroll in graduate degree programs in exercise physiology, cardiac rehabilitation, biomechanics, physical therapy, physician assistant, or other health-related professions. The health fitness emphasis is designed for students planning to assist individuals in changing their physical activity behaviors in settings such as employee wellness, community health, fitness and/or strength and conditioning programs, or a variety of other exercise and physical activity related fields.

All students receive a strong preparation in exercise physiology, exercise prescription, and exercise testing, and are required to complete both 112-hour fieldwork and 300- to 600-hour internship experiences. Students are also exposed to research and public service through activities within the Human Performance Laboratory.



All students in the exercise science program receive a foundation in exercise physiology, prescription, and testing, as well as experiential learning opportunities.

The department has a strong track record of engaging students who graduate with an average GPA of 3.26. Ninety-six percent of graduating students recommend the program to prospective applicants. Daniel Brown (2015 graduate) said, "The opportunities that were presented to me in my professional life wouldn't have been possible without GVSU. The faculty and students in the exercise science program want nothing more than to support you and push you to be the best that you can be. That support helped me succeed as soon as I graduated and led me to my initial career goal of working for a major league baseball team."

Public Health - Health Promotion Emphasis

Individuals' abilities and capacities to practice healthy lifestyles are perhaps the most important factors related to well-being across the lifespan. A Grand Valley master's degree in public health (M.P.H.), focusing on health promotion, offers students robust and powerful tools for systematic and strategic improvement of population level health. Health promotion uses health education, advocacy, research, and theory to improve health status, enhance quality of life, and reduce premature death and disease through disease prevention.

The World Health Organization and Institute of Medicine regard public health and health promotion as critical to solving urgent and profound national, state, and local health concerns. National development and implementation of policies to reduce inequality, health disparity, and overwhelming health care costs are needed. At the state level, the Flint water crisis has promoted a need for advocacy and health education around lead abatement and safe drinking water practices. Likewise, the Michigan Comprehensive Cancer Plan highly emphasizes the need for health promotion education, training, and prevention for cancer patients, communities, and providers.

Students of the Grand Valley M.P.H. program complete research-based practicums and projects. As of a result of a rigorous curriculum, ongoing faculty support, highly regarded public health preceptors, handson research, and opportunities for applied fieldwork, graduates are well-prepared for work in a diverse and growing array of community environments.

Health promotion is one way that society can ensure that all people attain and retain health and wellness across the lifespan. For students seeking graduate education, the M.P.H. in health promotion offers a valuable, diverse, meaningful, and applied degree for a gratifying career.

Information on the program can be obtained through the department website at gvsu.edu/grad/mph or by contacting Ranelle Brew, Ed.D., at brewr@gvsu.edu.

Emphasis in health promotion provides students with tools for systematic and strategic improvement of population health.

GVSU Scribe Academy Expands

For three years, the Office of the Vice Provost for Health and Helix Scribe Solutions of Grand Rapids have been offering a free scribe training program to students searching for health care experiences. Since the first scribe class held May 1, 2015, more than 230 students have received training with more than 100 currently working in emergency departments, supporting providers with

patient documentation in electronic medical records. Starting in Grand Rapids emergency departments, the demand for scribes has expanded to emergency departments in Big Rapids, Greenville, Owosso, and Zeeland.

Rationale for the expansion of the scribe program is a result of its consistent positive impact on emergency department teams. A study by Helix Scribes Solutions, comparing shifts with and without scribes from April 2015 to August 2016 among three emergency



A recent study shows utilization of scribes in emergency departments has had a positive impact on cost, efficiencies, and patient satisfaction.

departments, showed an increase in patients seen per hour, while the increase in staffing costs per patient was only 0.7 percent.

Additionally, patients expressed increased satisfaction. Patients reported that providers spent more time with them and that they were more willing to refer family and friends to services.

Starting spring of 2018, the Grand Valley Scribe Academy began offering certification for medical scribes. To be eligible for certification, scribes must have worked a minimum of 200 hours, have consistent satisfactory chart audit scores, and have positive recommendations from supervisors. After scribes pass the certification examination and submit proof of hours worked, they are rewarded with medical scribe certification. Certification is a way for scribes to advance their professional careers and their academic program applications. Certification is also a benchmark for advancing within Helix Scribe Solutions, including expansion to other medical specialties outside of emergency medicine.

Providers from other clinical specialties offices have expressed interest in working with scribes. Grand Valley partnered with subject matter experts to design and implement online modules to prepare scribes for work in cardiovascular, general surgery, orthopedics, pain management, primary care, and urology medical offices. Completion of a specialty module is a requirement for working as a scribe in these additional environments.

Using medical scribes improves provider satisfaction. Christopher Benner, D.O., said, "I have found working with scribes to be very helpful. I am still able to maintain an efficient pace while it is much easier to keep up on charting with the help of a scribe. I have noticed that I leave my shifts much closer to the time they are supposed to end than before, which makes the work-life balance a little easier."

For more information on the Grand Valley State University Scribe Academy, contact Jeff Trytko, M.A., program director of the scribe program, at trytkoj@gvsu.edu.



ADVANCING EDUCATION

Collaboration with community partners is a key ingredient to ensuring Grand Valley remains the leading provider of health professionals in the region. These collaborative opportunities provide pathways to student success in addition to enhancing and strengthening the health care provided in our communities.



Early Assurance Agreement for Premed Students

Qualified Grand Valley students who want to become physicians will receive enhanced opportunities for admission at the Central Michigan University (CMU) College of Medicine under an agreement between the two institutions.

Vice Provost for Health Jean Nagelkerk, Ph.D., F.N.P., F.N.A.P. cited other benefits to the agreement that was signed October 19, 2017, on CMU's Mount Pleasant campus. Nagelkerk said the agreement serves as an example of public higher education institutions collaborating to meet the needs of the State of Michigan and its residents. "The early assurance program assists with addressing the projected shortage of physicians by filling a critical need in the health care talent pipeline," she said.

CMU will reserve up to five seats in the College of Medicine program for qualified Grand Valley students.



President Thomas J. Haas, CMU medical student and GVSU graduate Shelby Falkenhagen, and CMU President George Ross at the GVSU/CMU agreement signing ceremony.

CMU will reserve up to five seats for qualified Grand Valley students. Through this agreement, CMU College of Medicine will also waive the supplemental application fees for Grand Valley students.

"We're very excited about this partnership, which expands upon our existing interprofessional education relationship with Grand Valley," said Dr. George E. Kikano, CMU College of Medicine dean. "We identify our admitted students based largely on their expressed desire to focus on rural and underserved populations, which is core to our mission."

Maria Cimitile, provost and executive vice president for academic and student affairs at Grand Valley, called this an important partnership for Michigan. "If we can create pathways for shaping, fostering a hope, a dream, we can open doors to those students at GVSU who want to be doctors," Cimitile said.

Students who are admitted do not have to submit multiple medical school applications, and they are notified of their acceptance before their senior year at Grand Valley. This affords students an opportunity to concentrate on broadening their knowledge base and skillset while engaging in high-impact learning experiences during their senior year.

applied Computing Institute

Experiential learning is a key component in Grand Valley's Seymour and Esther Padnos College of Engineering and Computing (PCEC) undergraduate and graduate degree programs. For undergraduates, this learning takes place via industry-sponsored senior projects, co-ops, and internships and for graduate students, via industry-sponsored graduate fellowships and projects. The applied Computing Institute (aCI) is an intentional expansion of these wellestablished PCEC practices to further enrich experiential learning opportunities for Grand Valley students while simultaneously providing industry partners with increased access to faculty and student computing expertise.

Hosted by the university's School of Computing and Information Systems (SCIS), the institute offers collaborative applied research and advanced development opportunities to external partners in areas aligned with SCIS faculty areas of computing expertise, including applications, data science, cyber security, and health informatics. Collaborations may take the form of small, short-term, single semester (15 weeks) engagements involving computer science, such as senior projects where three to four students work on computing-related assignments with an industry sponsor. Additionally, longer-term collaborations with industry partners are available via the institute's Applied Computing Services Laboratory (ACSL) in which SCIS faculty and students collaborate with industry partners on projects over multiple semesters.

"SCIS undergraduates participate in institute projects via a residency program in which they earn degree program credit as well as wages for working on sponsored applied computing research projects with faculty and industry sponsors," SCIS Professor Jonathan Engelsma, Ph.D., explains. "Graduate students are recruited to SCIS graduate degree programs via industry-sponsored graduate fellowships and are assigned to work on applied computing research projects with faculty supervision."

The applied Computing Institute exemplifies how Grand Valley seeks to advance and enrich student-learning opportunities while simultaneously providing industry partners access to invaluable expertise in the rapidly developing computing field.

Teaching Dietetics

The Clinical Dietetics Coordinated Graduate Program utilizes the Grand Valley Simulation Center services located in the Cook-DeVos Center for Health Sciences to provide students with pedagogy that is novel within the realm of dietetics for teaching clinical skills. Under the guidance of program director Jody Vogelzang, Ph.D., R.D.N., L.D., F.A.N.D.,

Dietetics program uses simulation as a key methodology in teaching clinical skills.



Clinical dietetic students practice feeding tube placement in the Simulation Center as part of their learning experience.

Inaugural Traverse City M.P.A.S. graduating class instrumental in program improvements and relationship development in northern Michigan. C.H.E.S., the clinical dietetics program provides students the opportunity to earn a Master of Science degree and also to complete 1,200 hours of supervised practice required to sit for the dietician registration exam.

Simulation supports upcoming shifts in the academic preparation of dietitians, such as the movement to competency-based education and the required entry-level master's degree. The Academy of Nutrition and Dietetics' 2017 Visioning Report has identified simulation as a key methodology to meet future expectations for dietetics education, especially the ability to foster critical thinking and higher-level clinical decision-making skills, both of which are important components of graduate-level academic work.¹

In the Simulation Center, under the supervision of faculty member Libby MacQuillan, Ph.D., R.D.N., students have opportunities to practice feeding tube placements on specially designed manikins and to conduct nutrition-focused physical

exams and counseling with a standardized patient (SP), a trained community member portraying a specific case situation. Student feedback has been positive; a recent graduate of the program, Marie Nalezyty, M.S., R.D.N., stated, "The Simulation Center was the perfect place to make mistakes and then learn from those mistakes with the feedback from the standardized patients, my peers, and my professor." Program alumna, Emily Rykaczewski, M.S., R.D.N., added, "The Simulation Center gave me the hands-on experience that I not only wanted but needed to become a skilled nutrition professional."

MacQuillan plans to begin collecting data in the 2018-2019 academic year on student confidence and competence, both before and after Simulation Center experiences. Information gathered from this research will be used to improve the effectiveness and student satisfaction with simulation in dietetics education and may be applied in other graduate dietetics programs across the country.



Physician assistant studies faculty member Andy Booth (center) gathers with the first M.P.A.S. graduating class from Traverse City.

Physician Assistant Studies Celebrate First Graduating Class in Traverse City

In December 2017, Grand Valley's Master of Physician Assistant Studies (M.P.A.S.) program honored the first graduating class of the Traverse City campus! Grand Valley State University's M.P.A.S. program has been providing high quality education for more than 25 years, and in recent years, faculty decided to expand the M.P.A.S. program beyond the Grand Rapids Health Campus.

The mission of this initiative was to train, educate, and graduate future physician assistants in rural communities to increase access to health care in northern Michigan. To help accomplish this goal, the physician assistant program wrote and was awarded a federal Health Resources and Services Administration (HRSA) grant to fund the initiative. An advanced Independent Television System (ITV) was installed to deliver real-time lecture content to both Grand Rapids and Traverse City campuses simultaneously, assuring equivalent education was being delivered to both campuses. In the fall of 2015, the Traverse City campus accepted their inaugural class.

The first eight M.P.A.S. students are not just "traditional" graduates from the program, as they developed new learning techniques to adjust to remote instruction. They were key partners with the faculty as they improved the program with their suggestions about delivery methods and developed new relationships in northern Michigan communities where they are now employed.

The M.P.A.S. program is fully accredited. Classes for students in Traverse City are held at the University Center at Northwestern Michigan College and require 28 months of full-time study. New students are accepted each fall. More information can be found at gvsu.edu/traverse/.

Pathways to Health Careers

In March 2018, Grand Valley State
University joined the Grand Rapids African
American Health Institute (GRAAHI) and six
other west Michigan colleges and universities
to identify opportunities to increase diversity
in health professions to more closely
represent the community.

Funded by the W.K. Kellogg Foundation, Pathways to Health Careers is a planning grant in which the collaborating institutions work to increase awareness of advanced practice health careers among high school and undergraduate African American and Latino/Hispanic students and to reduce barriers to entering these fields.

Participation in Pathways to Health Careers allows GVSU to continue work that started in 2011 with the initial university-wide Inclusion Implementation Plan which identified four key areas of focus: Access and Equity, Campus Climate, Diversity in Curriculum/Co-Curriculum, and Organizational Learning. The 2016–2021 university strategic plan demonstrates the ongoing commitment to this work, in which a key objective is to increase the diversity of students, faculty, staff, and administrators to more closely reflect the population of West Michigan.

Through April 2019, the participating institutions will work to define the challenges, identify best practices in other institutions, and create new approaches. The end result will be a new grant proposal requesting funds for implementation.

Grand Valley enhances universitywide inclusion initiatives through participation in Pathways to Health Careers partnership.



STUDENT LEADERSHIP, DEVELOPMENT, AND ACHIEVEMENT

Students pursuing health-related programs at Grand Valley enter with high academic credentials and then expand those qualifications even more. Under faculty guidance, students learn to problem solve and lead in ways that get noticed. Their success is evident not only in the recognition they receive but also in testing results: The pass rate for graduating students who take their board exams for the first time is consistently above the national average.



Epilepsy Research by Students Changes Patients' Lives

Students and faculty members in the School of Engineering are going the extra Medical Mile. For several years, they have partnered with physicians at Spectrum Health's Epilepsy Monitoring Unit (EMU) to research epilepsy and help patients manage the disorder. The partnership allows graduate students to gain experience while obtaining a master's degree in biomedical engineering.

As part of the partnership, students assist the Spectrum Health epilepsy team by analyzing

data about patients considering surgical procedures to stop seizures. The data comes from electrodes that are implanted in a patient's brain; students use several methods to analyze the data and pinpoint where a seizure might have originated. In 2017, several students continued and advanced the research under the guidance of faculty members Robert Bossemeyer, Samhita Rhodes, and Paul Fishback.

Allison Rogutich, who recently graduated with a master's degree in biomedical engineering, created an algorithm to help detect seizure onset zones in patients with refractory epilepsy. "My role in this research has been to Professors and students perform data analysis as part of research conducted with Spectrum Health Epilepsy Monitoring Unit. look at high frequency activity in EEG data from patients," she said. "Research findings indicate that high frequency oscillations in EEG data might be more accurate in delineating seizure onset zones in the brain." Rogutich, who was a member of Grand Valley's Track and Field team when she was an undergraduate student, completed bachelor's and master's degrees through Grand Valley's articulated master's degree program.

Cody Dean, recent program graduate and current research scientist at Amway, developed a tool for physicians to apply the Grand Valley research in their diagnoses and analyses. Using open-source software, Dean designed and built a module for his thesis project. "We noticed there was a gap," Dean said. "Students do the data analysis from patients, but it's hard for doctors to apply data because there's a lot of data and many evaluation methods are slow. My goal was to speed things up, so doctors have quicker and easier access to some of that data, which will help with decisions."

D.P.T. Students Turn Out for Day of Service

Grand Valley State University Doctor of Physical Therapy (D.P.T.) students, Heather Saturley and Lindsay Nesburg, Class of 2019, planned, organized, and coordinated the first annual Global Physical Therapy Dayof-Service engagement in the Grand Rapids community. Several organizations were the beneficiaries of their hard work and planning.

On two separate days in the fall of 2017, more than 75 D.P.T. students and faculty volunteered at least one-half day of service to a number of community organizations. The volunteers spread throughout West Michigan to provide assistance at Habitat for Humanity, Humane Society of West Michigan, Knapp Charter Academy, Kids' Food Basket, and the North East Community Action Association. Students also provided volunteer services to an exercise class for patients with Parkinson's disease, the GVSU Family Health Center, and the Grand Valley sonography lab.



Professor Samhita Rhodes and her students perform data analysis as part of research conducted with the Spectrum Health Epilepsy Monitoring Unit.

This national day of community service spearheaded by the American Physical Therapy Association involved more than 8,000 volunteers in 42 countries. Saturley and Nesburg were instrumental in bringing this event to Grand Valley and ensured a robust level of enthusiastic participation by the D.P.T. students and faculty. The orange-clad volunteers made quite an impact and provided a snapshot of what it means to be a "Laker for a Lifetime" during these days of meaningful community engagement.

Biochemistry Major Participates in a Research Program in Switzerland

Uyen Pham, a junior majoring in biochemistry, spent her summer in Switzerland participating in a global undergraduate research program at the Université de Lausanne. She was one of 20 students selected to work with a research group there. Participants also attended workshops and presented their own research at a student symposium.

Her month in Switzerland capped an eventful spring for Pham, a native of Vietnam. She had a research proposal accepted at the prestigious Posters on the Hill competition sponsored by the Council on Undergraduate Research. More than 400 students applied this year; 60 were selected. Held in April in Washington, D.C., student participants had opportunities to meet their congressional members and learn about advocacy for undergraduate research.

Pham has worked with Rachel Powers, professor of chemistry at Grand Valley, for two years, assisting with Powers' research on bacterial resistance to antibiotics by studying beta-lactamase. Her Posters on the Hill presentation highlighted fragment-based inhibitors for a particular antibiotic resistance enzyme.

"I started working with Dr. Powers before I had organic chemistry," Pham said. "She is such a good mentor; I didn't need a lot of knowledge in that area before starting." Powers said Pham has a natural curiosity for learning and science. "She is also a gifted communicator and can articulate the importance of her project at the correct technical level to general audiences and scientific experts," Powers said.

Susan Mendoza, director of the Office of Undergraduate Research and Scholarship, said Pham has done a terrific job of pursuing every research opportunity while at Grand Valley. Pham spent a summer in the lab as a Modified Student Summer Scholar (MS3), a program geared toward first- and second-year students.

Pham grew up in Vietnam but spent her senior year of high school as an exchange student in Arkansas. She wanted to stay in the U.S. for college and deciding where to go was like casting a wide fishing net, she said. Pham narrowed her initial search of 2,000 potential colleges by eliminating two-year institutions, those set in hotter climates, then by ACT/SAT scores and finally, tuition.

Pham's younger sister, Han, is also a Grand Valley student majoring in biology.



Uyen Pham (GVSU), biochemistry student

Uyen Pham was one of 20 students selected to participate in a research program in Switzerland.

Grand Valley students were awarded three of the five scholarships offered by Michigan Safety Conference.

OSH Students Finish Strong

Three students in the Grand Valley State University Occupational Safety and Health Management (OSH) program earned scholarships through the 2018 Michigan Safety Conference. Patrick Lynch, Luis Gonzales, and Eric Bell each earned a scholarship for their academic performance and engagement with the health and safety program. Eric Bell had earned the scholarship in 2017 as well. The conference awards five scholarships annually to Michigan students based upon academic performance, leadership attributes, and future plans to work in the field of health and safety. In addition to being excellent students, Patrick Lynch, Avery Moore, and Eric Bell serve on the Student Chapter Board of the American Society of Safety Engineers as the president, vice president, and secretary respectively.

The Grand Valley American Society of Safety Engineers (ASSE) Student Chapter also successfully tied for second place in the Laker Effect Challenge this past fall, winning \$1,000. The Laker Effect Challenge builds on the idea of collective impact of the Grand Valley community on individual students, West Michigan, the State of Michigan, and beyond. All submissions were from individuals or groups at Grand Valley working in collaboration with a community partner focused on solving a real problem and demonstrating leadership and advocacy aimed at shaping the future.

The OSH students worked with mentor Lynn Houseman, vice president of customer service at Comprenew, to establish a student-led, nonprofit consulting system for nonprofit organizations across West Michigan. The students were able to effectively create a process for ergonomics assessments in the work place. With this new system, Grand Valley OSH students can provide services to West Michigan nonprofit organizations that are concerned about safety.

There were more than 20 submissions for the award. Only seven groups, selected by community polls, were chosen to present their idea to the community and a group of judges.



Members of the GVSU American Society of Safety Engineers Student Chapter emerged successful from the Laker Effect Challenge. From left to right are Ronald Friedriechsen, Patrick Lynch, Eric Bell, Moore Avery



Standardized patients Phillip McCabe (far left) and Melissa Lane (far right) and the Simulation Design Competition winning student team of Amanda Deel, Melanie Ralph, Melinda Hoholik, Jayme Larson, and Angela Bucci (not pictured).

Simulation Design Competition

The Office of the Vice Provost for Health and the Midwest Interprofessional Practice, Education, and Research Center (MIPERC) hosted an inaugural interprofessional simulation design competition to provide students and health care professionals opportunities to create simulation designs, increase MIPERC's database of interprofessional simulations, and to assess a new design rubric developed by the MIPERC Simulation Workgroup.

In the competition, students and health professionals worked in teams of two to

five members from at least two disciplines to create interprofessional simulations. The simulation designs were assessed by members of the workgroup using the rubric developed specifically for the competition. The rubric, based on the Interprofessional Education Collaborative's core competencies for Interprofessional Collaborative Practice, included the following components: interprofessional learning objectives of simulation, clinical relevance, feasible scenario progression, and adaptability for different learners. Participating scenarios were expunged of author identification, therefore eliminating bias from the evaluation process. Following the competition, a post-event survey was sent to participants.

PAS department and classmates honor former student through creation of new scholarship fund. The winning student design, Nursing and OT Discharge Rounds, won the first place award and was featured at the Promoting Interprofessional Education for Students (PIPES) event in March 2018. The group was also invited to present their simulation design at the 2018 Midwest Interprofessional, Practice, Education, and Research Center Conference in September. The winning health professional team from Western Michigan University was also invited to present their design at the conference. The inaugural Interprofessional Simulation Design Competition will be accepting submissions for next year's competition beginning in fall of 2018.

1st Place Student Design Winners Nursing and OT Discharge Rounds

By Amanda Deel, O.S.T.; Melanie Ralph, O.S.T.; Jayme Larson, Nursing; Angela Bucci, Nursing; Melinda Hoholik, O.S.T.

1st Place Health Professional Team Adolescent Eating Disorders

By Western Michigan University Stryker School of Medicine – Kristine Gibson, M.D., F.A.A.P.; Lisa Singleterry, Ph.D., M.S.N., B.S.N.; Sally Vliem, Ph.D., M.S., B.S.N.; Scott Gaynor, Ph.D.; Gretchen Kauth, M.Ed., R.D.

2nd Place Student Design winners Interprofessional Post-stroke Feeding Session

By Amy Bartkus, O.S.T.; Lauren Goldstein, O.S.T.; Chloe Bielby, M.P.H.; Kaitlin Chauv, S.L.P.; Caroline Farney, S.L.P.

3rd Place Student Design Winners Skilled Nursing Facility Interdisciplinary Evaluation and Plan of Care

By Jamie Emens, O.S.T.; Zoey Rose, O.S.T.; Elyse Vos, O.S.T.; Kinsey Hill, S.L.P.

Student Design Honorable Mention Communication and Mobility: PT and SLP Collaboration in Acute Care

By Shelby Myers, D.P.T.; Olivia Lawson, S.L.P.; Brittany Mathis, T.R.

Stephanie A. Urbanawiz PAS Program Scholarship Fully Endowed

In winter of 2018, Audrey Droge was named the first recipient of the Stephanie A. Urbanawiz scholarship. The scholarship is awarded to a Michigan resident who is currently enrolled in the didactic phase of the Grand Valley physician assistant studies (PAS) program and has a cumulative grade point average of 3.5 or higher. Audrey is a second-year PAS student.

The scholarship was established to honor a former student, Stephanie Urbanawiz, Class of 2015, who had made a significant impact on her classmates, faculty, and peers. Just prior to starting in her cohort (fall of 2013), Stephanie was diagnosed with breast cancer at the age of 27. In the first year of her PAS program, she scheduled her treatments so she wouldn't miss any classes. Throughout her didactic phase, Stephanie continued to perform exceptionally well in her courses, never asking for special treatment. She held her head high, even when battling the side effects of treatment. Prior to starting clinicals, Stephanie found that the treatment was not effective and on February 28, 2015, Stephanie passed away at her home with family members at her side. In December of 2015, Stephanie was awarded, posthumously, her honorary Master's of Physician Assistant Studies degree.

According to Andrew Booth, PA-C, PAS program director, "Stephanie was a true inspiration to all of us in the program — faculty and students alike. She lived her life for others, with great humility."

In early 2016, Stephanie's parents, Michael and Patricia Urbanawiz, along with the PAS department faculty and staff and Stephanie's classmates, established the Stephanie A. Urbanawiz Physician Assistant Endowed Scholarship. In three short years, through an outpouring of support and fundraising, the scholarship effort has reached its goal of raising \$30,000, a true testament to the life Stephanie lived with energy and commitment!

According to Booth, "We thank everyone who contributed in the scholarship. Fundraising efforts will continue in order to support additional scholarships and to continue Stephanie's legacy."

To donate to the Stephanie A. Urbanawiz Physician Assistant Endowed Scholarship, please go to gvsu.edu/giving/urbanawiz/.



The Stephanie A. Urbanawiz scholarship was created in collaboration with Stephanie's parents, her classmates, and the physician assistant program.



PRECEPTORS

A prime component of a successful Grand Valley health sciences education is the work of preceptors with students. These medical professionals not only provide the crucial clinical experience students need but also the necessary guidance and feedback to optimize the fieldwork. Preceptors find reward in guiding this next generation of health professionals and benefits to their own practice because of the need to stay up-to-date to effectively teach.



Experiential Learning

Each year, students in Grand Valley State University's health-related programs participate in clinical- and research-based experiential learning opportunities such as fieldwork, internships, and practicums. During experiential learning, students gain exposure to health care in the real world, while being guided by preceptors who assist with the practical application of knowledge, provide feedback, serve as role models, and support students' overall professional development.

Preceptors also benefit from working with students, as students share current knowledge from coursework, enabling preceptors to remain current with developing knowledge in their fields. Preceptors also report significant satisfaction in helping students.

The Grand Valley Preceptor Perks program recognizes the invaluable contributions made by preceptors to student education. Perks include a gratis university title of affiliated clinical faculty, GVSU library privileges, free continuing education opportunities, and access to the fieldhouse, as well as to employee discounts and free attendance at the annual MIPERC conference.

Health care professionals interested in becoming a preceptor, or learning more about Preceptor Perks, can visit gvsu.edu/vphealth or contact Tina Barnikow at barnikot@gvsu.edu.

Beg's leadership, mentorship, and expertise fit well with KCON's certificate program in hospice and palliative care.

Nursing Preceptor

Dr. Simin Beg, chief of hospice and palliative care services for Spectrum Health, served as preceptor to three Doctor of Nursing Practice (D.N.P.) students who worked on a long-term project to expand the organization's palliative care services.

The first of the trio, Rachel Cardosa, built on the work she started as a doctoral student in the Kirkhof College of Nursing (KCON) and turned it into a successful \$400,000 Spectrum Health Foundation grant to expand palliative services.

Beg was asked to be a preceptor for KCON's D.N.P. students and she heartedly agreed.

"I wanted to do this, I felt it was not only beneficial for Grand Valley but had opportunities to make our division better," Beg said. "It's the perspective that D.N.P. students bring. They have a different way of looking at systems and how best to improve patient care." The community-based palliative care project started when Tanya Kolenbrander was a D.N.P. student in Beg's office in 2016. Kolenbrander analyzed outcomes of the Medicare Care Choices Model and developed an evidence-based toolkit so the next D.N.P. student could put it into practice.

Dianne Conrad, associate professor of nursing, said Beg's leadership, mentorship and expertise fits well with KCON's certificate program in hospice and palliative care.

"Dr. Beg is a committed, energetic, and supportive practice partner, committed to her work as well as the patients and students she works with," Conrad said.

Cardosa studied patients with advanced heart failure, which she termed among the most expensive and most chronic illness. She found, as many heart patients were treated at an outpatient clinic, palliative services were not forefront of mind.



Team members who established a community-based palliative care project for Spectrum Health are pictured: from left, Dianne Conrad, Lisa Vanderwel, Katelyn Gettel, Dr. Simin Beg, Rachel Cardosa, and Angela Kinch. Not pictured is Tanya Rowerdink.

The most recent D.N.P. student in Beg's office was Katelyn Gettel, who focused on expanding services to oncology patients, another illness (like heart disease) known for delayed referrals to hospice care. She said early referrals often are cost-saving measures.

Beg, who earned an executive M.B.A. from Grand Valley's Seidman College of Business, said it's not unusual for physicians to be hesitant to send their patients to a palliative care specialist. "Doctors are resistant to it. Medicine is about curing and fixing patients, it's what we're trained to do; this type of medical care is counterintuitive to how we were trained," she said.

The expansion project created by Beg and three D.N.P. students is making headway, she added. "The cardiologists are now seeing the benefits, we've earned their trust. They know that having palliative care is better for the patient. We can impact our community and have long-lasting benefits because of this partnership," Beg said.

Physician Assistant Program Preceptor Awards

Each year, Grand Valley's physician assistant studies (PAS) program selects two preceptors to receive awards honoring their commitment to educating Grand Valley students. One of the awards is selected by student nomination and the other is chosen by PAS faculty.

The faculty-selected Preceptor of the Year award was bestowed on William Heath, P.A.-C, who provides both a family medicine and rural/underserved clinical rotation for PA students in Lakeview, Michigan. Heath completed his own physician assistant program at Western Michigan University.

Heath provides a unique experience for students through his practice in the outpatient family care setting at Spectrum Health Lakeview Family Medicine and in the inpatient general medicine floor at Spectrum Health Kelsey Hospital in Lakeview. Students have remarked about his excellent teaching abilities, the copious amounts of clinical pearls that he provides, and the hands-on learning experiences available during their clinical rotations.

Heath has mentored multiple students over the past several years and is often willing to take on a student in need of a last minute clinical placement.

The student-selected Preceptor of the Year award was given to Ryan Marin, M.D., who practices adult, inpatient psychiatry with the Spectrum Health Psychiatry Consult Service. He has been precepting with Grand Valley for four years. Marin completed his medical



William Heath, P.A.-C



Ryan Marin, M.D.

Gosnell ensures students understand how academic didactic and laboratory information applies to the clinical setting. degree at Michigan State University College of Human Medicine and his residency at the Harvard Longwood Psychiatry Residency Training Program.

The students commented about Dr. Martin's clinical and teaching excellence. He and the other clinicians in the Consult Service create a valuable learning environment for students, giving them opportunities to experience the collaborative work of an interprofessional team. Students are challenged to become competent providers. One student commented, "I feel as though he has played a big part in the practitioner that I will become."

Cardiovascular Sonography Preceptor

Jordan Gosnell, B.S., RDCS, AE, PE, is an echo technologist at the Congenital Heart Center at the Helen DeVos Children's Hospital-Spectrum Health where he serves as a clinical instructor for Grand Valley State University's cardiovascular sonography program. "Details matter. Patients' perspectives matter," he says, "...every test you perform is unique for that patient." He tries to pass this philosophy on to the students he mentors, challenging their previously held perspectives and helping them understand why what they do is so important.

Gosnell routinely goes above and beyond to ensure that his students receive a well-rounded clinical experience and works to foster opportunities for students to engage in interprofessional activities. "It's satisfying to see students grow. In a very small way, I am able to provide care for more patients through the work my students go on to perform."

He comes highly recommended for his dedication to fostering a student-centric learning environment and ensuring that every student he mentors fully understands how academic didactic and laboratory information applies to the clinical setting. For this dedication, he has previously received the student-nominated Outstanding Clinical Mentor Award.

Gosnell's connection to Grand Valley goes well beyond his clinical instruction and mentorship. He has served as an adjunct faculty member in Grand Valley's cardiovascular sonography program and is an alumnus of the program. In addition to his two bachelor's degrees from Grand Valley State University, he is currently pursuing a Master of Public Health degree in epidemiology at Grand Valley.



Jordan Gosnell, B.S., RDCS, AE, PE

Dietetics Preceptor

Crystal Creighton, RD, has been a strong supporter of the Master of Clinical Dietetics supervised practice program from the beginning, taking time to mentor six students from the program over the past three years. In addition to sitting on the admissions panel for the program, Creighton went above and beyond to provide a clinical rotation experience to a student when the student's original site withdrew on the first day of the student's rotation.

Creighton receives high praise from her students, with many of them describing the wonderful learning experiences and opportunities experienced as her mentees. Creighton herself describes the experience of being a preceptor as a learning experience as well as a teaching one, and that mentorship has helped her to grow professionally. She works to provide a balanced internship



Crystal Creighton, RD

experience to help her interns achieve the goals that they set out for themselves as they begin their careers. Her position as the clinical nutrition manager at Spectrum Health enables her to offer interns unique and valuable experiences in the field of clinical dietetics, and she feels duty bound to do so. "I'm in a position where I can offer that and feel I have an obligation to," she says. "The future's registered dietitians are in need of the experience they can get working with my teams."

Creighton received her Bachelor of Science in dietetics from Central Michigan University and completed her dietetic internship through Andrews University.

Health Information Management Preceptor

Peggy Chapo, M.S., RHIA, is the director of health information management education at Beaumont Health. She received her bachelor's in medical record administration from Mercy College of Detroit and her Master of Science in health services administration from the University of Detroit Mercy. Her 30 years of service in hospital operations has enabled her to take on student interns from health information management programs throughout the State of Michigan.

Chapo approaches mentorship with a "pay it forward" philosophy. "I had many mentors that I learned from and who assisted me in the early stages of my career and I always felt a professional responsibility to do that for others." She says, "I find great personal satisfaction in seeing students who I have worked with go on to succeed in their careers!"

Creighton describes the experience of being a preceptor as a learning experience, as well as a teaching one. Chapo's 30 years of service in hospital operations has enabled her to take on student interns from health information management programs throughout the state.



Peggy Chapo, M.S., RHIA

As a first-time preceptor for Grand Valley, Chapo was named as an outstanding preceptor at the 2017 Midwest Interprofessional Practice, Education, and Research Center Conference for participating in a 10-weeklong health information management internship program. Chapo's willingness to take on an intern, despite an ongoing merger of the Beaumont Health, Royal Oak, and Botsford Health Systems gave her student invaluable insights into the ways in which successful departments can be managed during periods of organizational change.

One of Chapo's students nominated her for the award and offered her sincere gratitude for including her in high-level meetings at Beaumont Health and for connecting her to professionals outside of her academic program who could advise her about career opportunities. The student acknowledged the genuine interest that Chapo took in her career and interests, and her continued support, even after graduation: "Any student from Grand Valley would be very fortunate to be able to have an experience like mine."

Physical Therapy Preceptors

Arika Button, PT, D.P.T., CBIS, and Ron Radawiec PT, M.S., C/NDT, CBIS, from the Origami Brain Injury Rehabilitation Center in Mason, Michigan, have served as preceptors for Grand Valley's physical therapy program for several years.

Button received both her bachelor's degree in health sciences (2005) and a clinical doctorate (2008) from Grand Valley. She has been employed at Origami for 10 years, during which time she has mentored 15 Grand Valley physical therapy students. When asked about the importance of clinical education, she stated that, "Clinical education is where students can put all of what they have learned in the classroom into practice. I love helping to foster students' independence and clinical growth."

Radawiec received a bachelor's degree in physical therapy from the University of Michigan–Flint in 1987 and a master's degree in biomechanics from Michigan State University in 1993. He has been employed at Origami for 12 years, during which time he has mentored seven Grand Valley physical therapy students. He has also served as the clinical education coordinator for Origami.

Both Arika and Ron are certified brain injury specialists and certified American Physical Therapy Association (APTA) clinical instructors. In addition, Ron is certified in neurodevelopmental techniques and has held the following professional positions: member of the APTA Clinical Education Technology Workgroup, president of the Michigan Physical Therapy Association (MPTA) Special Interest Group for Clinical Education, and copresident of the MPTA West Michigan Clinical Education Forum.







Ron Radawiec, PT, M.S., C/NDT, CBIS

Physical therapists in Mason, MI, have mentored more than 22 Grand Valley students.



COMMUNITY PARTNERSHIPS AND SERVICE LEARNING

Grand Valley's robust health education system provides an optimal setting to help expand knowledge in the community about health care issues and challenges. Planned events present speakers who work with such matters and also allow for networking and more learning. Students also find ample environments in the community for service learning through co-ops, internships, and other opportunities.



Expanded Partnership with Mary Free Bed

An expanded partnership between Grand Valley and Mary Free Bed Rehabilitation Hospital will benefit both area patients and the health care talent pipeline.

Leaders from both institutions celebrated the opening of the Mary Free Bed Motion Analysis Laboratory at the Cook-DeVos Center for Health Sciences on January 11, 2018. Mary Free Bed specialists will conduct studies of patient walking patterns there and serve as preceptors to Grand Valley students and graduate fellows. At the event,

Mitch Barr, a Mary Free Bed physical therapist, conducted a gait analysis on a 10-year-old girl.

The new collaboration provides an important clinical service to the community for which patients otherwise would have to travel out-of-state. Currently, the lab is enabling two to three gait studies per week for children with, primarily, cerebral palsy. The results of those studies inform important clinical and surgical decisions related to management of these patients. Preserving the capability of conducting these studies in our community was an important factor that inspired this new agreement.

The collaboration provides a clinical service to the community for which patients otherwise would have to travel out-of-state.

President Thomas J. Haas called the expanded agreement a good example of a public-private partnership. "What we see here is the ability to help people achieve their quality of life; that's a great mission you have at Mary Free Bed, and we're so pleased to do this augmentation," he said. "This lab is another tool at our disposal to help you achieve your mission."

Austin Cammire, who graduated in August with a doctorate of physical therapy, attended the January celebration. Cammire served a nine-week clinical placement at Mary Free Bed with the inpatient stroke team, and he said that experience prepared him well for the workforce. "Having this partnership with Mary Free Bed, where they accept so many of our students and it's such a great hospital, it really helps you with the hands-on experience," Cammire said.

Kent Riddle, CEO of Mary Free Bed said, "there is strength in numbers. We're bringing our two organizations together, and why that is so great is because we can be better together than apart." Riddle added, "More than half of the clinical staff at Mary Free Bed are Grand Valley alumni."

A Public Health and Occupational Therapy Study Abroad to a Blue Zone: Living Longer and Better

An interdisciplinary service learning trip to Ikaria, Greece, provided lessons on living longer, happier lives. During May 2018, College of Health Professions faculty and students from the public health and occupational therapy departments worked and learned in this remote Greek island, recently defined as one of five places on earth where longevity is defying odds. The trip was based on *The New York Times* best-selling book series, *The Blue Zones*, through a partnership with the author Dan Buettner and Ranelle Brew, Ed.D., M.S., CHES, chair of the Public Health Department.

The Blue Zones community is defined as an area in which citizens, schools, employers, restaurants, grocery stores, and community leaders have come together to optimize residents' longevity and well-being through daily lifestyles. The participants studied the Blue Zones Power 9® principles — nine



Grand Valley President Thomas J. Hass joins Kent Riddle, CEO of Mary Free Bed, and other Grand Valley leaders: Roy Olssen, College of Health Professions dean; Maria Cimitile: provost and executive vice president for academic and student affairs; Dan Vaughn, PT chair; and Jean Nagelkerk, vice provost for health; celebrated the opening of the Mary Free Bed Motion Analysis Laboratory at Cook-DeVos Center for Health Sciences.

commonalities that lead to longer, healthier, happier lives: moving naturally, knowing your purpose, downshifting, the 80 percent rule, plant slant, wine at five, family first, belonging, and the right tribe. Thea Parikos, a Michigan native with a Greek ethnic background and owner of a local inn, was the educational host of the trip.

Students, guided by Brew and Grand Valley faculty member, Susan Cleghorn, Dr.O.T., OTR/L, T.R.S., C.A.P.S., spent two weeks living, working, gardening, and socializing with a spectrum of Ikarian locals including health professionals and community members of all ages. The group studied and evaluated how improved overall population health has been achieved and compared and

contrasted characteristics between the United States and Greece.

"The partnership of our two programs and students was such a unique and meaningful experience for us all! The Ikarian daily lifestyle was the opposite of our fast-paced American culture in so many ways. Practices in cooking, physical activity, socializing, and the sense of belonging, were all noted by our students as vast differences from those in the United States. Observing contributing factors of longevity in Ikaria has encouraged the students to dig deeper into the facets of healthy living and how they will use this knowledge in their respective fields," said Brew.

Ikaria, Greece, is one of five places on earth where longevity is defying odds.



Students from Grand Valley's public health and occupational therapy programs spent two weeks in Ikaria, Greece, to study the health behaviors of this Blue Zone.

Service Learning, Interprofessional Student Teams at the Grand Rapids Children's Museum

On May 11, 2018, Diagnosis, Fun! was held at the Grand Rapids Children's Museum as part of a service-learning partnership of the Midwest Interprofessional Practice, Education, and Research Center (MIPERC) with the Children's Museum. During the event, undergraduate and graduate students in health and health-related programs from Grand Valley State University, Michigan State University College of Human Medicine, Ferris State University College of Pharmacy, and Central Michigan University College of Medicine collaborated to create community-based, health education experiences for local, elementary age students.

Nearly 200 second- and third-grade students from area schools visited the museum throughout the day. The elementary school students visited each of 10 health stations and

interacted with team-based health professions students from allied health, public health, occupational and physical therapy, nursing, therapeutic recreation, pharmacy, and medicine programs. The health stations were designed with developmentally appropriate content and interactive activities that stimulated creative play and learning. The health stations supported the content for elementary school Michigan Health Education Content Standards, as well as provided an opportunity for children to learn about health professions roles.

Brenda Pawl, director of the Interprofessional Education Office commented, "This is such a rich experience for our future health care clinicians to learn about, from, and with each other, as they collaborate on developing their themed stations." Diagnosis: Fun! will be an annual spring service-learning event for health professions students and an opportunity to work in interprofessional teams focusing on the themes of team dynamics, health literacy, and social determinants of health while also providing a significant service to the community.



Student Michael Bassett discusses health food choices with event participants Matthew and Samuel Higbea at the Grand Rapids Children's Museum.



Barbara Brandt, Ph.D., from the National Center for Interprofessional Practice and Education delivers the keynote presentation at the 2017 MIPERC Conference.

MIPERC is comprised of more than 25 organizational members across six states.

MIPERC Celebrates 10th Anniversary

The Midwest Interprofessional Practice, Education, and Research Center (MIPERC) reached a milestone during its September 2017 annual conference, celebrating its 10th year of gathering health care professionals, educators, and students to promote collaboration, innovation, and interprofessional initiatives across disciplines, learning institutions, and health care systems. The conference, titled Team Science and Virtual Health Care, drew more than 350 participants.

MIPERC is housed in the Office of the Vice Provost for Health at Grand Valley and is comprised of more than 25 organizational members across six states. Members meet throughout the year in workgroups focused on discussion, development, and implementation of interprofessional initiatives in the areas of clinical setting, curriculum, professional development, scholarship, service-learning, and simulation.

As part of the celebration, MIPERC launched a new video that highlights the importance

of organizations and health care professionals infusing interprofessional education and practice into communities to improve the quality and safety of care. The video will be used to expand the organization's efforts across the region and draw new members to the center.

Speakers at the conference included Barbara Brandt, Ph.D., National Center for Interprofessional Practice and Education at University of Minnesota; Eduardo Salas, Ph.D., Psychology Department Chair at Rice University, Houston, Texas; John Scott, M.D., M.Sc., medical director and telehealth associate director at University of Washington; and Gwen Sandefur, M.H.S.A., president of Spectrum Health Hospital Group in Grand Rapids.

The conference is held annually at the Richard M. DeVos Center on Grand Valley's downtown campus. Individuals interested in participating in MIPERC or becoming involved with the conference can contact Brenda Pawl, director of interprofessional initiatives and special projects, at pawlb@gvsu.edu.

More than 275 clinicians, educators, and students participated in an ethic series on genomic medicine.



Dr. Caleb Bupp from Spectrum Health serves as panel moderator at the first West Michigan Health Care Ethics Conference at Grand Valley.

Inaugural West Michigan Ethics Conference focuses on Genomic Medicine

In March, Grand Valley's Office of the Vice Provost for Health, in collaboration with Spectrum Health, hosted the 2018 West Michigan Health Care Ethics Conference: Ethical Issues in Genomic Medicine. This inaugural afternoon symposium was paired with the long-standing evening DeVos Medical Ethics Colloquy at Grand Valley's L.V. Eberhard Center and featured local, regional, and national experts who led

the audience in informative and thoughtprovoking discussions focused on ethical considerations in the use of genomic medicine in clinical care.

Afternoon keynote speakers included Bart Williams, Ph.D., Van Andel Research Institute; Debora Barnbaum, Ph.D., and Kimberly Garchar, Ph.D., Kent State University; and Ruth Sanborn, D.Be., M.A., Spectrum Health. More than 275 clinicians, educators, and students participated in the event. Continuing education credits were offered for physicians, nurses, physical therapists, social workers, and respiratory therapists.

The DeVos Medical Ethics Colloquy, the evening component of the program, provided content focused specifically on The Ethics of Genome Editing. The colloquy speakers included Matthew Porteus, M.D., and Alta Charo, J.D.

Porteus is an associate professor at Stanford University and the associate director of the Stanford Medical Science Training Program. His work has been the first to demonstrate that gene correction could be achieved in human cells at frequencies high enough to potentially cure patients. He is considered one of the pioneers and founders of the genome editing field. His research program continues to focus on developing genome editing by homologous recombination as curative therapy for children with genetic diseases.

While Charo was unable to participate, Porteus was able to present her material, which focused on the regulatory issues of genomic medicine. Charo teaches bioethics, biotechnology regulation, and public health law and torts at the University of Wisconsin. She is an elected member of the National Academy of Medicine and, in 2017, served on the committee drafting regulatory policy recommendations for governance of genome editing.

Support for the 2018 events was provided by Blue Cross Blue Shield of Michigan and Grand Valley's College of Liberal Arts and Sciences. The combined spring DeVos Colloquy/Ethics Conference will become an annual event and will take place next on March 25, 2019, examining issues related to the ethics of conscientious objection.

Information is available on the colloquy website at gvsu.edu/colloquy/.



RESEARCH AND GRANTS

The passion Grand Valley faculty members have for research is matched by their passion to incorporate students into their efforts. Involving students in research is such a fundamental tenet of instruction at Grand Valley that undergraduate students have the opportunity to work on the type of research that is usually reserved for graduate students at other schools. This comprehensive research is aided by a significant number of grants, allowing close examination across all sectors of health care.



New Grants Support High-tech Projects in Health Care

In the past year, two Grand Valley initiatives were awarded grants from the Grand Rapids SmartZone Local Development Finance Authority (LDFA) to support student, faculty, and staff projects focused on the development of medical devices.

The applied Medical Devices Institute (aMDI) was awarded \$680,000 for students and staff members to work with two local technology companies to help create medical devices and prepare them for manufacturing and sales. The aMDI, housed in Grand Valley's Cook-DeVos Center for Health Sciences on Grand Rapids' Medical Mile, brings medical device ideas to life through research, design, and development. The center is led by Brent Nowak, executive director.

Engineering initiatives receive multiple grants for development of medical devices.

The Padnos College of Engineering and Computing, Spectrum Health Innovations (SHI), and Kendall College of Art and Design received a three-year, \$700,000 grant. In this collaboration, physicians and medical staff come to SHI with ideas, and students are challenged with developing the ideas and building prototypes. The partnership began in 2011.

Paul Plotkowski, dean of the Padnos College of Engineering and Computing, said the grants will allow Grand Valley to continue to make contributions to the West Michigan community. "West Michigan is becoming a thriving hub for medical device design and development," Plotkowski said. "These programs have the potential to make a significant impact on patients' quality of life and enrich the economy of West Michigan, and they are excellent examples of the Laker Effect."

Grand Valley Program Receives \$1 Million Grant to Support STEM Students

A new project at Grand Valley will financially help academically talented, low-income students seeking an education in science or engineering. The project received a \$1 million grant in December 2017 from the National Science Foundation's Scholarships in Science, Technology, Engineering, and Mathematics program (S-STEM) program.

Retaining and Inspiring Students in Science and Engineering (RISE) will create a set of progressively increasing four-year scholarships for at least 50 Grand Valley students. The program will offer scholarships to students in all year levels at Grand Valley, with an emphasis on incoming first-year students. Funding initiated in Fall 2018.

RISE will immerse students in a cohort with faculty mentors and provide experiential learning opportunities, such as summer research, internships, and career preparation throughout their studies.

Through an in-depth evaluation, the RISE project team will investigate the aspects of the program that help support student retention and graduation, road blocks to low-income students' graduation, and student perceptions of the value of RISE's experiential learning activities.

"Research shows that up to 60 percent of students who begin their freshman year as STEM majors leave the STEM disciplines in their first two years," said Deborah Herrington, professor of chemistry and associate department chair, and RISE co-principal investigator. "This attrition from STEM is highest for low-income and underrepresented students. Many students who change their majors are capable of success in a STEM field, but for financial and time reasons, they change to disciplines that may appear to require less time and structure."

The RISE project is led by Deborah
Herrington, Ph.D., professor of chemistry and
associate department chair; Paul Plotkowski,
dean of the Seymour and Esther Padnos
College of Engineering and Computing;
Charlie Standridge, associate dean of the
Padnos College; and Jerry Johnson, associate
professor of social work.

For more information, contact Deborah Herrington at herringd@gvsu.edu.

Cooling and Functionality in Multiple Sclerosis

A unique, interdisciplinary, clinical research team, which included graduate and undergraduate students from the College of Liberal Arts and Sciences and the College of Health Professions, received the Collaborative Research and Creative Activity Initiative Grant in November 2017. Grand Valley's Center for Scholarly and Creative Excellence awarded the grant to encourage new, collaborative research and creative activities among faculty members from different disciplines and/or areas of expertise.

The 12-month, \$9,020 grant will support the team's research on the impact of neck cooling on functional performance in relapsing-remitting multiple sclerosis (MS). The team will assess exercise capacity, strength-endurance, activities of daily living, and extremity range of motion, as well as subjective fatigue and psychological well-being.

Members of the research team include Ross Sherman, Ph.D., associate professor of exercise science in the Movement Science Department; Shaunna Kelder, Dr.O.T., OTR/L, assistant professor of occupational therapy in the College of Health Professions; Barbara Baker, P.T., Ph.D., N.C.S., associate professor of physical therapy in the College of Health Professions; and Danita Vander Kodde, M.S., P.A.C., M.S.C.S., a physician assistant in neurology at Spectrum Health Medical Group.

The debilitating effects of fatigue are experienced by 70 percent of individuals suffering from MS, and are often due to impaired regulation of core body temperature. As one's body temperature begins to increase, due to increasing metabolic load and heat production, the symptoms of MS are exacerbated and the sensation of fatigue begins to increase. These symptoms lead to decreased physical activity or exercise tolerance, which longitudinally will lead to reduced quality of life.

Study examines benefits of neck cooling in the management of multiple sclerosis.



Professors Ross Sherman, Ph.D., and Shaunna Kelder, Dr.O.T., OTR/I are two of the members of an interprofessional team furthering research on multiple sclerosis. Additional team members not pictured are Barbara Baker, PT, Ph.D., N.C.S., and Danita Vander Kodde, M.S., P.A.C., M.S.C.S.

Student-developed technology supports extended research in Parkinson's disease. Research has identified cooling as an effective strategy to reduce exercise-induced fatigue; however, none of the earlier-identified techniques would be usable without access to extensive funds, a well-equipped laboratory, and qualified professionals. The significance of the research is that no one has examined the effectiveness of neck cooling before and during exercise, which may provide a low-cost solution for people with MS. The research may also offer further insight into the physiological mechanisms underpinning MS-related fatigue.

Professor Leads Research to Test Cure for Parkinson's Disease

A team of researchers from Grand Valley, Van Andel Institute, and Rush University received a \$500,000 grant from the National Institute of Neurological Disorders and Stroke, part of the National Institutes of Health, to test a possible cure for Parkinson's disease.

The main targets of neuronal loss in Parkinson's disease are dopamine neurons, and this research project will test if the introduction of a modified protein, known as PM-Nato3, will protect those neurons from the toxicity of the disease.

The patent-pending technology to be used in the research was developed by Grand Valley alumni Nicholas Huisingh, Jordan Straight, Daniel Doyle, and Douglas Peterson while they were undergraduate students. Merritt DeLano-Taylor, Ph.D., associate professor of biomedical sciences, will serve as one of three principal investigators for the research. The research proposes that delivering PM-Nato3 into the affected area of the brain of a person with Parkinson's disease will activate certain factors that will protect dopamine neurons. To test that hypothesis, the team will use human cells and animal models to study the effects of PM-Nato3.

Delano-Taylor said his team ultimately hopes that the results will assess the technology's potential for translation into a product for further research and eventually clinical intervention.

The Silent Killer!

The applied Medical Device Institute (aMDI) is working with Sterilogy, a local Michigan company, to help reduce and eliminate hospital associated infections (HAIs). As noted by Brent Nowak, executive director of aMDI, HAIs kill more than 100,000 patients every year and cost U.S. hospitals well over \$30 billion in unnecessary costs. Additionally, in the United States, there are 2,000,000 more nonfatal incidences of HAIs annually. Hal Zaima, CEO of Sterilogy, pointed out that, "The patient fatality is similar to a Boeing 767 crashing every day!"

Sterilogy has patented a compact body-worn, hand-hygiene system that alerts the user at the appropriate time to dispense and use the hand sanitizer, and then automatically records the dispensing event into Sterilogy's cloud, allowing hospital executives to see

compliance rates in real time. To enhance the capabilities of Sterilogy's system, Sterilogy has engaged aMDI to develop a wireless, automated, zone control system.

GVSU Professor Karl Brakora, Ph.D., principal investigator and graduate engineering students Jon Vinsko and Trevor Ekin are designing, developing, fabricating, testing, and demonstrating a high radio frequency-based system. This novel system identifies and differentiates between patient zones, signals the health care provider, and records sanitation events. This program provides the students real-world experience while the faculty leads an industry-driven program to bring a solution to the health care industry.

Food Policy Impact on Food Pantries

Debbie Lown, Ph.D., R.D., associate professor in the Department of Biomedical Sciences; her graduate student, Eva Andrews; and Lown's undergraduate students are investigating the impact of a new healthy food policy on client satisfaction, pantry food environment, and food distribution at five Kent County Health Department's (KCHD) food pantries. This is a collaborative research project with the KCHD and Access of West Michigan, which is funded by an MDHHS/KCHD: Health and Wellness 4 x 4 Plane Grant Evaluation.

Hospital-associated infections kill more than 100,000 patients every year.



This hand hygiene system alerts user and records information to aid in organization compliance rates.

In 2016, food insecurity affected 12.3 percent or 15.5 million U.S. households.



Faculty member Debbie Lown (fourth from left) along with Grand Valley students Michael Bommarito, Eva Andrews, Kenny Urena-Gonzalez, and Megan Jecks are participating in research related to food pantry utilization and user satisfaction.

Food insecurity is defined as the limited access to adequate food due to a lack of money and other resources. The USDA Economic Research Service reported that food insecurity affected 12.3 percent or 15.5 million U.S. households in 2016. Food pantries provide groceries, usually once a month, to food insecure individuals. The number of clients utilizing food pantries has increased steadily in recent years. These services are generally considered emergency or short-term assistance. However, according to research published in The Journal of Consumer Affairs it appears that more households have come to depend on food pantries for long-term assistance with up to 28 percent of food pantry clients utilizing services eight months or more. Also, up to 40 percent of clients frequented more than one food pantry a month. These findings indicate there is a stable population with long-term dependence on food pantries.

The long-term dependence on food pantries has resulted in a focus on the nutritional quality of food provided by pantries. Studies published in the *Journal of the American Dietetic Association* have found that premade

food bags for pantry clients contained sufficient protein, fiber, iron, and folate, but inadequate vitamins A and C, calcium, fruit, and dairy. Furthermore, food pantries can provide nutritionally adequate food packets but need help to become effective referral units for public assistance programs.

The research team found that at a three-month, post-healthy food policy implementation time point, pantry users were very satisfied with the new healthy food policy, and this remains high at one year. The pantries were found to have a greater variety of fruits and vegetables at both three months and one year. There was an increased score in the pantry food environment at four of the five pantries due to displaying the fruits/ vegetables abundantly or increasing access to healthy eating materials or nutrition labels. The clients increased their fruit and vegetable intake at three months and one year from baseline, however intake was still below the USDA recommendations. Access of West Michigan will use this information to adjust their healthy food policy to improve the nutrition knowledge and intake of pantry users.

Implementation of Telemedicine in Physician Assistant Education

To meet the demands of educating physician assistant students in an evolving medical environment, Grand Valley's physician assistant studies (PAS) program and Munson Medical Center in Traverse City collaborated on a Rural Utilities Services (RUS) grant, which funds the Rural Education and Access to Community Health (REACH) Telemedicine Project.

The REACH Telemedicine Project is an innovative project that includes education of physician assistant students in telemedicine principles and connects 19 rural end user sites to a robust telemedicine network providing increased access to care in northern Michigan. The project has the capacity to provide services to approximately 400,000 persons living in the 14 targeted rural counties.

The funding from the grant was received in 2017 and implementation of the REACH project is currently taking place. During the first year of the grant, PAS students at the Grand Rapids and Traverse City campuses received formal education on telemedicine principles; the students in Grand Rapids were subsequently partnered with a telemedicine provider.

Preliminary, thematic analysis of students' reflection papers on their experience with telemedicine providers was positive with three themes identified: 1) knowledge gained in the practice of telemedicine, 2) high impact on patient care using telemedicine, and 3) positive view on the use of telemedicine in their future practice. The next phase of the grant is to develop simulation experiences for students and to operationalize the northern Michigan end user sites that will provide students at the Traverse City location with rural clinical experiences in telemedicine.

The Telemedicine Project has capacity to serve approximately 400,000 persons living in the 14 rural counties.



ALUMNI HIGHLIGHTS

From policy creation to patient intake to finding ways to help people live healthier lives, Grand Valley alumni are making a difference in health care. They are carrying out what Grand Valley strives to instill in graduates: Be a force for positive change through leadership and continued learning. Read on for stories about the career paths taken by some Lakers.



Brian Calley, '00, Michigan Lieutenant Governor

Insurance reform to properly cover those with autism has long made sense to Brian Calley, who started serving as Michigan's lieutenant governor in 2011 after a stint in the state House. He saw the reform as an investment that made sense for the public good because the right treatment, especially early intervention, could help individuals with autism lead self-determined lives and reduce overall costs of care, as well as provide assistance and support.

In one of life's twists, the concept of sound public policy took on a personal note when Calley's daughter was diagnosed with autism. The possibility that she had the disorder dawned on him while he listened to testimony about autism during a House committee hearing. Her bewildering struggles — "everything was so hard" — seemed to now have an explanation, but Calley and his family still went down a familiar road for those encountering a brain health disorder: denial, hiding, and worries about stigma. They eventually reached the conclusion that they would not hide anymore, even though challenges remained.

"You want things to be predictable and you want things to turn out the way you expected them to turn out," Calley said. "If a journey is different, it doesn't have to be worse. It's just different."

"We have to overcome the mindset that somehow health care needed for the brain is something to be embarrassed about when, if it was for your heart health, you wouldn't be embarrassed about seeking treatment."

- BRIAN CALLEY, '00



Brian Calley, '00

His personal experiences have reinforced his belief that government, the health care industry, and all of society need to do better handling what he calls "health care from the neck up."

"We have to overcome the mindset that somehow health care needed for the brain is something to be embarrassed about when, if it was for your heart health, you wouldn't be embarrassed about seeking treatment."

Calley's work with state government has included signing into law measures to improve brain health treatment, such as autism insurance reform, legislation to professionally license autism therapists (leading to an influx of these crucial professionals), and a package of bills to fight opioid addiction.

His political career before state government — where he served as a state representative from 2007 to 2011 — started with the Ionia County Board of Commissioners. His work at all levels in politics has often dealt with financial issues, which is fitting given his early career in the banking industry. After graduating from Michigan State University, Calley worked as an assistant vice president for commercial lending for an Ionia County bank. It was during this time that he earned his Master of Business Administration degree from Grand Valley. He would go on to other executive positions in the commercial lending sector before his election to the state House.

"Earning my M.B.A. from Grand Valley provided me with relevant, real-world skills that made me a better leader, helping me navigate the challenges and opportunities that arise in both the private and public sectors," Calley said.

One significant challenge where Calley led from a public policy standpoint is on efforts to stem the opioid addiction epidemic in Michigan. Among the legislative changes: an improved tracking system so doctors can see patients' prescription history and guard against over-prescribing; assurance that health care providers have a bona fide relationship with patients before prescribing painkillers; and requirement that physicians explain to patients the risks associated with taking medications, such as the potential for addiction.

These changes show how building a health care system around people rather than the "artificial constructs of government" produce better results, Calley said. Such approaches allow for meaningful partnerships and innovation.

And nowhere are person-focused approaches more important than in the mental health system, which, through public policy and other forces, has become detached from the general health care system, Calley said. The result is a lack of coordination that produces unsatisfactory outcomes. He advocates an approach where public policy provides integrative opportunities. For instance, "Our primary care system needs to be better equipped to be the medical home for brain care."



Eglantina Gjermeni, '98

Eglantina Gjermeni, '98, Minister for Urban Development, Republic of Albania

Every day the Albanian minister for urban development, Eglantina Gjermeni, uses her Grand Valley education, as well as the lessons that she learned outside the classroom 20 years ago while earning her master's degree in social work.

A longtime professor, Gjermeni became a member of Albania's parliament in 2009, working with the Commission on Health and Social Issues. In her current role, Gjermeni works on matters including urban planning and development, as well as housing. Her work also involves strong advocacy through publishing, training, and other means for women's health and empowerment while addressing some of the most pressing issues facing women, such as equity, gender violence, and trafficking. For 10 years, she led the Gender Alliance for Development Center, a nongovernmental organization that promotes gender equity in Albania.

Expanding her knowledge through a master's degree at Grand Valley had multiple benefits for her professional goals, but the move to the United States for a year was a daunting one, and not just because of the geography. Gjermeni left her husband behind in Albania, traveling to West Michigan with their then

five-year-old son. But to hear her describe the U.S. — "the land of dreams and prosperity" — is to understand one of the primary reasons she embarked on this journey.

She is grateful for the opportunity to expand her education in a democratic country, as her homeland at that time was going through social, economic, and political changes. The added bonus, she said, was her living arrangement. "I was blessed to have been given this wonderful opportunity to experience the American life to its full dimension by living with an American family," she said.

Gjermeni's appreciation for experiencing the "full dimension" of the American life meshes with her dedication throughout her professional life to being a social researcher. The bookends to her master's degree as an international student at Grand Valley are a bachelor's degree in history from the University of Tirana, Albania, and a doctorate in social work from the same school. She also has served on the faculty of that university's Department of Social Work.

She was eager to incorporate what she learned at Grand Valley into her instruction as well as into all aspects of her life. Gjermeni came away cherishing values including teamwork, open-mindedness, communication, accepting differences, and an emphasis on motivation and raising self-esteem, all of which were relatively new concepts to her, she admitted.

An experience in fieldwork while at Grand Valley helped reinforce some of those values for Gjermeni, as well as helping her learn more about supervising skills in social work, empathy, and assertiveness.

To Gjermeni, enlightenment and awareness hold the keys to furthering not only the future of women but also the social and economic development of the country. She values the team she works with and strives to bring what she believes is a different approach to politics, specifically, achievement is best attained through communication, not bullying. In addition, beyond her work in her

"The global experience taught us that the only way to put women's issues on the agenda at the national and international levels is by enhancing women's participation in politics and decision-making."

– EGLANTINA GJERMENI, '98 "Being on the cusp of the millennial market, it's very important for me to have a purpose to what I do every day. Our mission is about improving the health and lives of the people we serve. To me that is compelling."

- MARTI LOLLI, '07

own country, working with women during the 1999 Kosovo refugee crisis has given her a well-rounded background for helping women.

"The global experience taught us that the only way to put women's issues on the agenda at the national and international levels is by enhancing women's participation in politics and decision-making," she said.

Marti Lolli, '07, Senior Vice President for Consumer and Government Markets and Chief Marketing Officer, Priority Health

A produce farmer's remarks at one of the hundreds of presentations Marti Lolli of Priority Health has given on health savings accounts sticks with her to this day when she thinks about developing effective and affordable health coverage options. As the daughter of small business owners, she understands that others in the same situation just want to run their businesses well and reduce the costs that make it hard to compete and survive. And they want to eliminate the noise about confusing health coverage options.

"The farmer said, 'I just want to farm. I want to be a good custodian of this business and I want to be a good employer, but I have all of these other pressures," said Lolli, the senior vice president for consumer and government markets and chief marketing officer. "It motivated me to think through programs to provide high-quality, affordable health care options."

Lolli's drive to tackle complex business problems and new challenges meshes well with the ever-changing needs in the health care industry. At Priority Health, she is able to match that drive with a mission that she appreciates and a culture that she prizes for its emphasis on creating high-performing teams and empowering women to be leaders. "Being on the cusp of the millennial market, it's very important for me to have a purpose to what I do every day. Our mission is about



Marti Lolli, '07

improving the health and lives of the people we serve. To me that is compelling. It's not just about driving sales and marketing."

While all of those elements make her work personally satisfying, they also help create an atmosphere that produces favorable outcomes for members and the community, she said. In turn, Lolli is grateful for the trust and loyalty from members who recognize the efforts of Priority Health to help with behavioral change or see them through a health issue they faced. She has essentially spent her entire career at Priority Health in an almost dizzying number of roles, first on an information technology track and then, playing a hunch that ran counter to advice she received and conventional thinking, on a product development track.

That move launched Lolli on a trajectory that has had her leading product development and business strategy amid health care reform, as well as working closely on efforts to influence policy at the state and federal levels. She now oversees \$2.4 billion in annual revenue and three business units. Her journey embodies a notion that she likes: A career path is a lattice, not a ladder.

Her work along that lattice started with a liberal education at Hillsdale College that helped teach her how to think. She had worked at Priority Health for a bit when she decided to continue her education at Grand Valley, receiving her Master of Business administration, notably missing only one week of classes to have a baby. She returned to applause.

Lolli values the breadth of knowledge she absorbed while receiving her M.B.A. Some information was immediately applicable to her work, while she has been surprised by some of the other areas that she has drawn upon in subsequent years. She enjoyed the theory education she received as well as the fact that some currently practicing faculty members walked into classes with case studies from their days at work. "It was a nice blend of faculty members."

She also credits her degree with helping to expand her thinking agility, a trait that she uses as she ponders what she considers the most pressing challenges in her industry. "The holy grail is affordability and getting customers involved in health care as well. We need people to ask questions about their health care to help contain costs."

Michelle Troseth, '83 and '97, Co-founder of MissingLogic, LLC, West Michigan

As an undergraduate Grand Valley nursing student, Michelle Troseth was tasked with creating a care plan for a patient with a complicated medical history that included a bilateral amputation and significant pain. Knowing the work also needed to meet the high standards of nursing instructor Bonnie Wesorick, Troseth stayed up all night developing a detailed 20-page plan that she was sure covered every aspect of treatment. She eagerly anticipated Wesorick's approval. Wesorick scarcely looked at the plan. She set it aside and asked Troseth: "What can you tell me about the patient?"

Troseth can recall minute details about that clinical case because, in that moment, she learned a valuable lesson that was a key part of setting her career path toward patient-centered care — the kind Wesorick



Michelle Troseth, '83 and '97

has pioneered and championed. Once Troseth learned more about the patient, she understood the pros and cons of pain management for that individual and discovered that positive imagery could play a holistic, beyond-medicine, role in that case. "Bonnie made such an impact on me as a clinical instructor in how she treated students and patients. I was in awe of her," Troseth said. "If Bonnie taught me anything it was the human connection. We can lose sight of it in the clinical setting."

Troseth's commitment to evidence-based care was rooted in her experiences as a student and then subsequently informed her through different clinical settings and professional evolvement. For instance, the need for high-quality collaboration between physicians and nurses was burnished for Troseth when she had a frustrating interaction with a doctor while she worked as a critical care nurse. That experience formed the basis for her thesis researching doctor/nurse relationships and the resulting effect on nursing job satisfaction when she pursued her master's degree from Grand Valley.

Troseth has gone on to a busy, distinguished career that is anchored not only in nursing but also in advancing the evidence-based, patient-centered model to create thriving health work cultures and practice environments. Her most recent ventures have included a trifecta of addressing challenges in health care through an emphasis

"In health care, it's easy to be unipolar in your thinking. A hospital board may make a decision that the only thing we're going to focus on is patient satisfaction, but if they don't put equal emphasis on staff satisfaction, eventually patient satisfaction will be in the tank again."

- MICHELLE TROSETH, '83 AND '97

"I like being able to figure out the problem and to have those 'aha' moments, to find out the root cause and how do we educate and not have that happen again."

- ANDRAYA WELLS, '08

on informatics and interprofessional collaboration. She co-founded MissingLogic, LLC, which helps health care organizations manage issues in such areas as patient care and clinician well-being by using a strategy that encourages leaders to look beyond the problem of the moment to study the entire picture. She took a position as clinical effectiveness officer for EBSCO Health. And she is currently president of the National Academies of Practice (NAP), which espouses the benefit of interprofessional collaboration in health care.

Even with that full schedule, Troseth is quick to point out that the lessons of balance are not lost on her when it comes to family. She credits the support of her husband for helping with her professional goals and has always made a point to carve out time with him and their three sons.

Indeed, managing both sides of a polarity is a central part of her life. She steadfastly believes that polarity thinking will transform the health care industry. The notion — one that is also incorporated into the Kirkhof College of Nursing framework — boils down to understanding that polarities are sets of values that appear to be opposite but actually are connected, yin and yang.

An example: "In health care, it's easy to be unipolar in your thinking. A hospital board may make a decision that the only thing we're going to focus on is patient satisfaction, but if they don't put equal emphasis on staff satisfaction, eventually patient satisfaction will be in the tank again. I believe that we suffer as a nation because we look at health care with either/or thinking, and do not supplement with and/both thinking."

Through her career, Wesorick has been an integral part of Troseth's professional journey. Troseth took a job with what is now Spectrum Health Butterworth Hospital in Grand Rapids and while there worked with Wesorick to develop the clinical practice model (CPM). Troseth eventually assumed a leadership role with the CPM Resource Center, which then

became part of information and analytics company Elsevier.

Fittingly, Troseth's desire to give back to Grand Valley, where she earned both bachelor's and master's degrees in nursing, led to forming a committee to raise money for The Bonnie Wesorick Center for Health Care Transformation.

Troseth's passion for transforming the clinical setting has only deepened over the decades. She believes establishing polarity thinking as a core competency in health care is crucial, and she thinks there is no better place to foster that movement than the Wesorick Center.

"I am very motivated to put it on the map for Grand Valley," she said.

Andraya Wells, '08, Interim Director of Patient Access for Mercy Health Saint Mary's

The health care team that Andraya Wells oversees plays an important role in setting the tone of patients' visits to Mercy Health Saint Mary's facilities. Her approximately 120 colleagues work at the front end of the system from preregistration for procedures to greeting those who arrive at urgent care or the emergency department. They verify information about patients and also handle insurance matters, identifying patient payment liabilities and communicating what is and isn't covered.

Wells uniquely understands the responsibility embedded in the point-of-access system because she has worked in every aspect of it. She has gone from working right out of school as a per diem employee who would take any shift to now directing the services delivered to patients in more than 40 areas. The deep well of knowledge she developed by working her way up through that system serves her well in a supervisory role. "I've worked it and done it, so I can speak to every process," Wells said.



Andraya Wells, '08

The professional niche she found has fulfilled her goal of working in the dynamic field of health care. Interestingly, the certainty she feels now about her role, her skills, and aptitude contrasts with the student who came to Grand Valley having no idea about her future and then struggled to find a field that spoke to her. She knew she wanted to help people. She came to realize the growing, changing field of health care held promise. But she knew she wasn't suited for a clinical setting.

Grand Valley's liberal education helped set the foundation for her direction. A class on grant-writing piqued her interest and helped her see some of the behind-the-scenes options to working in health care. And then the internship required for her bachelor's degree in public administration opened the crucial door. She worked for the Mercy Health Saint Mary's Human Resources Department and eventually found her way to working within the system she oversees today at an institution that she values for its mission and guiding behaviors.

Wells notes that the work of her team not only affects the patient experience but also the duties of others in the health care system. So much of their work is simply trying to keep people happy to ensure a smooth process — and she relishes the challenge. "I really like the problem-solving," Wells said. "I like being able to figure out the

problem and to have those 'aha' moments, to find out the root cause and how do we educate and not have that happen again. I also like building relationships with people so I can pick up the phone and take care of something."

Making connections for the long term or for the few moments interacting with a patient is at the heart of what Wells and her team do. Perhaps nowhere was that skill put to the test more acutely than when she worked in the emergency department. People would swear at her or beg for help. She remembers the urgency of helping a woman carrying a baby rushing toward her, frantic, unable to speak English. Wells was able to determine that the baby wasn't breathing — a scenario that resonates even more now that she is a mother.

She learned the necessity of managing her emotions and the desire to help someone within a limited pocket of influence. Those customer service skills with people at their most vulnerable will become increasingly important for Wells and her team as the health insurance landscape continues to evolve and coverages shift. "The difficult conversations will continue to increase, and patients may not get the services they desperately need because they aren't covered," she said.



2017 PUBLICATIONS, PRESENTATIONS, AWARDS, AND FACULTY ACHIEVEMENTS

Grand Valley health professions faculty members in 2017–2018 produced a wide array of writings and presentations to help illuminate topics or research and provide information for the ongoing scholarship in the field. A compilation of this important work, as well as recognitions earned, follows.

Refereed Journal Articles and Manuscripts

- Astivia, O., Forer, B., Dueker, G., Cowling, C., & Guhn, M. (2017). The Ages and Stages Questionnaire: Latent factor structure and growth of latent mean scores over time. *Early Human Development*, 115, 99-109. doi: 10.1016/j.earlhumdev.2017.10.002.
- Ayotte, S., & Harro, C. (2017). Effects of an individualized aerobic exercise program in individuals with a brain tumor undergoing inpatient rehabilitation: A feasibility study. *Rehabilitation Oncology*, 35(4), 163-171. doi: 10.1097/01. REO.0000000000000009.
- Ayoub, A. M., Hawk, L. M. L., Herzig, R. J., Jiang, J., Wisniewski, A. J., Gee, C. T., Zhao, P., Zhu, J. Y., Berndt, N., Offei-Addo, N. K., Scott, T. G., Qi, J., Bradner, J. E., Ward, T. R., Schoenbrunn, E., Georg, G. I., & Pomerantz, William C. K. (2017). BET Bromodomain inhibitors with onestep synthesis discovered from virtual screen. *Journal of Medicinal Chemistry*, 60(12), 4805-4817. doi: 10.1021/acs. jmedchem.6b01336.
- Baker, M., Eason, A., Miutz, L., & Gyorkos, A. M. (2017). Paleolithic diet and exercise improve metabolic and cardiovascular risk factors. *FASEB Journal*, *31*(1), pp. 1b810. Retrieved from http://www.fasebj.org/content/31/1_Supplement/lb809. short?related-.
- Barnes, K. R., & Janecke, J. N. (2017). Physiological and biomechanical responses of highly-trained distance runners to lower-body positive pressure treadmill running. *Sports Medicine Open*, 3(41). doi: 10.1186/s40798-017-0108-x.

- Barnes, K. R. (2017). Comparisons of perceived training doses in champion collegiate-level male and female cross-country runners and coaches over the course of a competitive season. *Sports Medicine Open*, 3(38). doi:10.1186/s40798-017-0105-0.
- Bartz-Smith, S., & Amy, C. (2017). An interdisciplinary approach to a well-rounded campus health care delivery system. *Kinesiology Review*, 6(4), 375-379, doi: 10.1123/kr.2017-0038.
- Beasley, J. A. (2017). Clinical relevance commentary in response to effectiveness of a fine motor skills rehabilitation program on upper limb disability, manual dexterity, pinch strength, range of finger motion, performance in activities of daily living, functional independence, and general self-efficacy in hand osteoarthritis: A randomized clinical trial. *Journal of Hand Therapy*, 30(3), 274-275. doi: 10.1016/j. jht.2017.05.002.
- Beasley, J. A., Kenyon, L. K., Mistopoulos, A., Chartier, J., Meyers, K., Ashby, B. M., & Anderson, K. (2017).
 Cane handle designs Pressure and preference: A pilot study.

 Journal of Acute Care Physical
 Therapy, 8(2), 58-64. doi: 10.1097/
 JAT.00000000000000053.
- Bromberg-White, J. L. Glazer, L., Downer, R., Furge, K., Boguslawski, E., & Duesbery, N. S. (2017). Identification of VEGF-independent cytokines in proliferative diabetic retinopathy vitreous. *Investigative Ophthalmology and Visual Science*, *54*(10), 6472-6480. doi: 10.1167/iovs.13-12518.
- Bybjerg-Grauholm, J., Hagen, C. M., Khoo, S. K., Johannesen, M. L., Hansen, C. S., Bækvad-Hansen, M., Christiansen, M., Hougaard, D. M., & Hollegaard, M. V. (2017). RNA sequencing of archived neonatal dried blood spots. *Molecular Genetics and Metabolism Reports*, 10, 33-37. doi: 10.1016/j.ymgmr.2016.12.004.

- Chen, Y., Khoo, S. K., Leach, R., & Wang, K. (2017). MTA3 Regulates extravillous trophoblast invasion through NuRD complex. *AIMS Medical Science*, 4(1), 17-27.
- Cotner, J. B., Weinke, A. D., & Biddanda, Bopaiah, B. (2017). Great Lakes: Science can keep them great. *Journal of Great Lakes Research, Elsevier,* 43(5), 916-919, doi: 10.1016/j. jglr.2017.07.002.
- Crowley, C., & Munk, D. (2017).

 An examination of the impact of meditation on college students. *Journal of College Student Development*, 51(1), 91-98.
- Davis, R. L., Ziomkowski, M. K., & Veltkamp, A. (2017). Everyday decision making in persons with early Alzheimer's Disease: An integrative review of the literature. *Research in Gerontological Nursing*, 10(5), 240-247.
- DeVries, D. R., Schaible, C., Vincent, K., Sheridan, S., Royston, W., & Hohn, D. (2017). The Therapeutic Use of Art with Women Experiencing Postpartum Mood Disorders. *American Journal of Recreation Therapy/Weston Medical Publishing*, 16(2), 41-50.
- DeVries, D. R., Schaal, P., & Olsson, R. (2017). The Patient Protection and Affordable Care Act of 2010 and its impact on recreational therapy. *Annual in Therapeutic Recreation/ATRA*, 23(23), 52-63.
- DeVries, D. R. (2017). Therapists' perception and valuing of interprofessional collaboration. *Annual in Therapeutic Recreation/ American Therapeutic Recreation Association*, 23, 12-30.
- DeVries, D. R., Brennan, Z., Lankin, M., Morse, R., Rix, B., & Beck, T. M. (2017). Healing with books: A literature review of bibliotherapy and children who have experienced trauma. *Therapeutic Recreation Journal/Sagamore Publishing*, 51(1), 48-74, doi: 10.18666/TRJ-2017-V51-I1-7652.

- Deweerd, D. J., Wampler, P., Vannier, R. G., Beelen, M. P., & Kraft, M. (2017). Community outreach, water resources assessment, and Sawyer Filter evaluation near Deschapelles, Haiti. *Geological Society of America Abstracts with Programs*, 49(6).
- Dillard, A. (2017). Anxiety before a prostate cancer diagnosis: Implications for knowledge and treatment preferences. *British Journal of Health Psychology*, 2(1), 151-168. doi: 10.1111/bjhp.12222.
- Dondzila, C. J. (2017). Enhancing support for physical activity in older adults: A public health call to action. *Journal of Public Health Management and Practice*, 24(1), 26-29. doi: 10.1097/PHH.00000000000000559.
- Ellis Weismer, S., Gernsbacher, M. A., Stronach, S., Karasinski, C. M., Eernisse, E. R., Venker, C. E., & Sindberg, H. (2017). Lexical and grammatical skills in toddlers on the Autism Spectrum compared to late talking toddlers. *41*(8), 1065-1075.
- Fauvel, A. M., Lake, D., & Sisson, L. (2017). Working with: Implementing a feminist pragmatist approach to support local food recovery. *Public Philosophy Journal*, 1(1), 1-29. Retrieved from http://publications.publicphilosophyjournal.org/record/?issue=76-2BF-0&kid=76-2BC-25
- Feeback, M. R., Seo, Y., Dancy, M., Glickman, E. L. (2017). The effect of psychomotor performance, cerebral and arterial blood saturation between African-American and Caucasian males before, during, and after normobaric hypoxic exercise. *International Journal of Exercise Science*, 10(5), 655-665. Retrieved from https://www.ncbi.nlm. nih.gov/pubmed/28966706.
- Feeback, M. R., Fleming, N., Vaughn, J. (2017). Ingestion of oxygenated water enhances lactate clearance kinetics in trained runners. *Journal of International Society of Sports Nutrition*, 14(9). doi: 10.1186/s12970-017-0166-y.

- Ferrell, K. A., Correa-Torres, S. M., Howell, J. J., Pearson, R. H., Carver, W. M., Groll, A. S., Anthony, T. L., Matthews, D., Gould, B., O'Connell, T., Botsford, K. D., Dewald, H. P., Smyth, C. A., & Dewald, A. J. (2017). Audible Image Description as an accommodation in statewide assessments for students with visual and print disabilities. *Journal of Visual Impairment & Blindness*, 111(4), 325-339.
- Fisher-Pipher, S., Kenyon, L. K., & Westman, M. (2017). Improving balance, mobility, and dual-task performance in an adolescent with cerebral palsy: A case report. *Physiotherapy Theory and Practice*, 29(3), 223-229.
- Goossen, L., Bobryk, S. (2017). Variation in pipetting may lead to the decreased detection of antibodies in manual gel testing. *Clinical Laboratory Science*, 24(3), 161-166.
- Gyorkos, A. M., Campbell, A., DesArmo, L., Morris, K., & Dondzilla, C. (2017). An exploration of exercise is medicine On campus marketing and engagement. *Medicine and Science in Sports and Exercise*, 49(5S), 11-12. Retrieved from http://journals.lww.com/acsm-msse/fulltext/2017/05001/An_Exploration_Of_Exercise_Is_Medicine_on_Campus.34.aspx.
- Hoogenboom, B. J., & Sulavik, M. (2017). The movement system in education. The International Journal of Sports Physical Therapy, 12, 894-900.
- Hoover, S. J., Winner, R. K., MCCutchan,
 H., Beaudoin, C., Judge, L. W., Jones,
 L. M., Leitzelar, L. M., & Hoover, D.
 L. (2017). Mood and anxiety in high school basketball players: A pilot study. *International Journal of Exercise Science*, 10(4), 604-618.
- Hughes Carter, D. L. (2017). Making the diagnosis of diabetic kidney disease. *Journal for Nurse Practitioners*, 13(3), 153-154.

- Jones Moyle, M., Karasinski, C. M., Ellis-Weismer, S., & Gorman, B. K. (2017). Grammatical morphology in school-age children with and without language impairment: A discriminant function analysis. Language, Speech, and Hearing Services in Schools, 42(4), 550-560.
- Kanaboshi, N., Anderson, J. F., & Sira, N. (2017). Constitutional rights of infants and toddlers to have opportunities to form secure attachment with incarcerated mothers: Importance of prison nurseries. *International Journal of Social Science Studies*, *5*(2), 55-72. doi: 10.11114/ijsss.v5i2
- Karasinski, C. M., & Ellis Weismer, S. (2017). Comprehension of inferences in discourse processing by adolescents with and without language impairment. *Journal of Speech*, *Language, and Hearing Research*, 53(5), 1268-1279.
- Khalil, H., Kanisicak, O., Prasad, V.,
 Correll, R. N., Fu, X., Schips, T.,
 Vagnozzi, R. J., Liu, R., Huynh, T.,
 Lee, S. J., Karch, J., & Molkentin,
 J. D. (2017). Fibroblast-specific
 TGF-β-Smad2/3 signaling underlies
 cardiac fibrosis. *The Journal of clinical investigation*, 127(10), 3770-3783. doi: 10.1172/JC194753.
- Kelch, A., & Gulgin, H. (2017). Functional movement score by somatotype. *Clinical Kinesiology*, 78(1), 1-8.
- Kenyon, L. K., Farris, J., Gallagher, C., Hammond, L., Webster, L., & Aldrich, N. J. (2017). Power mobility training for young children with multiple, severe impairments: A case series. *Physical and Occupational Therapy in Pediatrics*, 37(1), 19-34.
- Kenyon, L. K., Westman, M., Hefferan, A., McCray, P., & Baker, B. J. (2017). A home-based body weight supported treadmill training program for children with cerebral palsy: A case series. *Physiotherapy Theory and Practice* 33(7), 576-585. doi: 10.1080/09593985.2017.1325956.

- Kenyon, L. K., Anderson, D. K., & Frost, J. (2017). A survey of pediatric clinical education in professional DPT education. *Journal of Physical Therapy Education*, 31(3), 105-113.
- Kinne, B. L., Baker, B. J., & Chesser, B. T. (2017). The use of vestibular rehabilitation for individuals with migraines: A systematic review. *Otolaryngology*, 7(6), 1-7. doi: 10.4172/2161-119X.1000334.
- Kinne, B. L. (2017). The United States health care system: One patient's experience. *GeriNotes*, 24(4), 13-14.
- Knowles, M. L., & Dean, K. (2017).
 Present but invisible: Physical obscurity fosters social disconnection.
 European Journal of Social Psychology, 48(1), 86-92. doi: 10.1002/ejsp.2274.
- Kothary, V., Doster, R., Rogers, L., Kirk, L., Boyd, K., Romano-Keeler, J., Haley, K., Manning, S., Arnoff, D., & Gaddy, J. (2017). Group B streptococcus induces neutrophil recruitment to gestational tissues and elaboration of extracellular traps and nutritional immunity. Frontiers in Cellular and Infection Microbiology, 7(19). doi: 10.3389/fcimb.2017.00019.
- Lane, P. (2017). Educational change in the 21st century: Small business to tackle temperature, water, soil. *Studia Negotia*, 62(2), 51-70. doi: 10.24193/ subbnegotia.2017.2.04.
- Leung, W., G. E. P., Burg, M., Ingles, J., Corbiell, L., Lorenz-Guertin, J., Olson, K., Wykle, M., Enoch, E., Simon, M., Frank, M. E., Kirkland, L. D., Ensign, J., Perez-Aragon, G., Haiker, B., Ramirez, J., Schneider, P., Wendland, P., McDonald, M., Monsma, N., Spencer, E., Schulz, D. E., Scheiber, C., Zavala-Arellano, E., Ostby, K., Wernette, A., & Mittig, C. (2017). Retrotransposons are the major contributors to the expansion of the drosophila ananassae Muller F element. G3: Genes, Genomes, and Genetics, 7(8), 2439-2460. doi: 10.1534/g3.117.040907

- MacQuillan, E. L. (2017). Analysis of policy changes aimed at breastfeeding promotion as part of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Making it work for Michigan. *Michigan Journal of Public Health*, 8(1), Article 5. Retrieved from https://scholarworks.gvsu.edu/mjph/vol8/iss1/5.
- Miutz, L., Baker, M., Eason, A., & Gyorkos, A. M. (2017). The effects of a ketogenic diet and exercise interventions on cognitive function. FASEB Journal, 31(1), pp. 1b810. Retrieved from http://www.fasebj.org/content/31/1_Supplement/lb810.short.
- Molla, A., & Wampler, P. J. (2017).

 Household radon gas occurrences and geographic distribution in Western Michigan. Journal of Environmental Health/National Environmental Health Association (NEHA), 80(3), 16.
- Morgan, A., Crilly Bellucci, C., Coppersmith, J., Linde, S., Curtis, A., Albert, M., O'Gara, M. M., Kapp-Simon, K. (2017). Language development in children with cleft palate with or without cleft lip adopted from non-English-speaking countries. *American Journal of Speech-Language Pathology*, 26(2), 342-354. Retrieved from http://ajslp.pubs.asha. org/article.aspx?articleid=2613696.
- Nagelkerk, J., Thompson, M., Bouthillier, M., Thompkins, A., Baer, L., Trykto, J., Booth, A., Stevens, A., & Groeneveld, K. (2017). Improving outcomes in adults with diabetes through an inter professional collaborative practice program. *Journal of Interprofessional Care*, 32(1), 4-13. doi: 10.1080/13561820.2017.1372395.

- Nikitin, A., Ivanova, S., Kiosak, D., Badgerow, J., & Paschnik, J. (2017). Subdivisions of haplogroups U and C encompass mitochondrial DNA lineages of Eneolithic-Early Bronze Age Kurgan populations of western North Pontic steppe. *Journal of Human Genetics*, 62(6), 605-613. doi: doi:10.1038/jhg.2017.12.
- Peterson, V. (2017). Plato's allegory of the cave: Literacy and "the Good". *Review of Communication*, 17(4), 273-287.
- Parker, T., Lewis, C., & Beaudoin, C. (2017). The influence of exercise empowerment on life stress.

 International Journal of Kinesiology and Sport Science, 5(4), 33-37.
- Reinhold, M. I., Otieno, S., & Bacon-Baguley, T. A. (2017). Integrating interprofessional experience throughout a first-year physician assistant curriculum improves perceptions of health care providers. *Journal of Interprofessional Education & Practice*, 6, 37-43.
- Rowe, S. (2017). Liberal education as vital interdependence. *Center for Contemplative Mind in Society, 1*(1), 111-118.
- Shoemaker, M. J., & Phillips, T. (2017). Early access to physical therapy and specialty care management for American workers with musculoskeletal Injuries. *Journal of Occupational and Environmental Medicine*, 59(4), 402-411.
- Shoemaker, M. J., Oberholtzer, N. L., Jongekrij, L. E., Brown, T. E., Cartwright, K. A., Hanson, K., Serba, D., Dickinson, M. G., & Kowalk, A. (2017). Exercise- and psychosocial-based interventions to improve daily activity in heart failure. *Home Health Care Management and Practice*, 29(2), 111-120.

- Shoemaker, M. J., Cartwright, K.,
 Hanson, K., Serba, D., Dickinson, M.,
 & Kowalk, A. (2017). Concurrent
 validity of daily activity data from
 Medtronic ICD/CRT devices and the
 Actigraph GT3X triaxial accelerometer:
 A pilot study. Cardiopulmonary Physical
 Therapy Journal, 28(1), 3-11.
- Sinko, P. D., Gidley, D., Vallery, R., Lamoureux, A., Amidon, G. L., & Amidon, G. E. (2017). In vitro characterization of the biomimetic properties of poly(dimethylsiloxane) to simulate oral drug absorption. *Molecular Pharmaceutics*, 14(12), 4661-4674. doi:10.1021/acs. molpharmaceut. 7b00798.
- Spoelstra, S. L., Sikorskii, A., Majumder, A., Burhenn, P., Schueller, M., & Given, B. (2017). Oral anticancer agents: An intervention to promote medication adherence and symptom management. *Clinical Journal of Oncology Nursing*, 21(2), 157-160. doi: 10.1188/17.CJON.157-160
- Spoelstra, S. L., Sikorskii, A., Majumder, A., Burhenn, P., Schueller, M., & Given, G. (2017). Feasibility, preliminary efficacy, and satisfaction of a nurse practitioner intervention to promote medication adherence and symptom management in adult cancer patients prescribed oral anti-cancer agents: A practice-based, quasi-experimental study. Clinical Journal of Oncology Nursing, 36(1),18-28. doi: 10.1097/NCC.0b013e3182551587.
- Tierney, J., Coolbaugh, C., Towse, T. E, & Byram, B. (2017). Adaptive clutter demodulation for non-contrast ultrasound perfusion imaging. *IEEE Transaction on Medical Imaging*, 36(9), 1979-1991. doi: 10.1109/TMI.2017.2714901.
- Thomas, P. L., Bender, M., Avolio, A., Baker, P., Harris, J. L., Hilton, N., Hites, L., Roussel, L., Shirley, B., & Williams, M. (2017). Developing the Clinical Nurse Leader Survey instrument: A modified Delphi study. *Journal of Nursing Care Quality*. doi: 10.1097/NCQ.00000000000000310.

- Visser, A., Westman, M., Otieno, S., & Kenyon, L. K. (2017). A home-based body weight supported treadmill program for children with cerebral palsy: A pilot study. *Pediatric Physical Therapy*, 29(3), 223-229.
- Wing, J. J., Burke, J. F., Clarke, P. J., Feng, C., & Skolarus, L. E. (2017). The role of the environment in falls among stroke survivors. *Archives* of *Gerontology and Geriatrics*, 72(Sept-Oct), 1-5. doi: https://doi. org/10.1016/j.archger.2017.04.007.
- Yorke, A. M., Curtis, A. B., Shoemaker, M. J., & Vansgnes, E. (2017). The impact of multimorbidity on grip strength in adults age 50 and older: Data from the Health and Retirement Survey (HRS). Archives of Gerontology and Geriatrics, 72(Sept-Oct), 164-168. doi: 10.1016/j. archger.2017.05.011.

Books and Book Chapters

- Bostrom, A. C. (2017). Schizophrenia spectrum and other psychotic disorders. In M. A. Boyde (Ed.), *Psychiatric nursing: Contemporary practice (6th edition)* (pp. 335-378). Philadelphia, PA: Wolters Kluwer.
- Dillard, A., & Ellis, E. (2017). Optimism and its associations with health behavior and responses to health communication. In R. Parrott (Ed.), Encyclopedia of health and risk message design and processing: Vol. 12. Message recipient psychological characteristics. Oxford, United Kingdom: Oxford University Press.
- French, D. L., Shoemaker, M. J., Booth, A. D., Beasley, J. A., Terry, G., Devoest, M., Scanlon, S., & Van Lente, P. (2017). Post-Concussion Syndrome. In S. H. Campbell & K. M. Daley (Eds.), Simulation scenarios for nursing educators: Making it REAL (3rd Ed) (pp. 553-561). New York, N.Y.: Springer Publishing Company, Inc.

- French, D. L., Booth, A. D., Shoemaker, M. J., Devoest, M., Beasley, J. A., & Bulson, J. A. (2017). Interprofessional Disaster Simulation. In S.H. Campbell & K. Daley (Eds.), Simulation scenarios for nursing educators: Making it REAL (3rd Ed). (pp. 615-623). New York, N.Y.: Springer Publishing Company, Inc.
- Grapczynski, C. A. (2017). Obsessivecompulsive and related disorder. In B. J. Atchison & D. P. Dirette (Eds.), Conditions in occupational therapy: Effect on occupational performance (5th Edition) (pp. 209-228). Philadelphia, PA: Wolters Kluwer.
- Rose, J., & Borstad, J. (2017). The ankle and foot. In L. Colby, & C. Kisner (Eds.), Therapeutic exercise: Foundations and techniques (6th Edition). Philadelphia, PA: FA Davis.
- Sisson, L. G., & Lown, D. (2017). Soup kitchens: Homeless adults and gaps in meeting their nutritional needs. In V. R. Preedy and V. B. Patel (Eds.), Handbook of famine, starvation, and nutrient deprivation: From biology to policy (pp. 17). Cham, Switzerland: Springer International Publishing.
- Thomas, P. L. (2017). Strategic planning and change leadership: Foundations for organizational effectiveness. In L. Roussel, J. Harris, & P. Thomas (Eds.), Management and leadership for nursing administrators (pp. 145-166). Burlington, MA: Jones & Bartlett.
- Thomas, P. L. Roussel, J. Harris, & C. Dearman (Eds.) (2017). Project planning & management: A guide for nurses and interprofessional teams. Burlington, MA: Jones & Bartlett Publishers.
- Thomas, P. L. (2017). *Initiating and* sustaining the clinical nurse leader role: A Practical Guide. In L. Roussel, J. Harris, & P. L. Thomas (Eds.) (pp. 412). Burlington, MA: Jones & Bartlett Publishers.

- Thomas, P. L. (2017). Evaluating organizational frameworks for systems change. In H. Hall and L. Roussel (Eds.), Evidence-based practice:

 An integrative approach to research administration, and practice (pp. 23).

 Burlington, MA: Jones & Bartlett.
- Thomas, P. L. (2017). Rural and migrant health. In M. Nies & M. McEwen (Eds.), Community and public health nursing: Promoting the health of populations (pp. 443-468). St. Louis, MO: Elsevier.
- Vigna, J. (2017). Biology for a changing world with physiology 3rd edition.

 London, England: MacMillan/Freeman.
- Vogelzang, J. L. (2017). Creating public policy and advocating for nutrition polices. In Edelstein, S. (Ed.), 4th Edition of nutrition and public health. (pp. 54-73). Burlington, MA: Jones & Bartlett Learning.

Presentations – Regional, National, and International

- Alderink, G., Rodriguez, A., Spruit, E., & Woodward, H. (2017, October). Dynamic balance during preferred and fast-paced walking in individuals with and without Parkinson's disease: An analysis of margin of stability and mediolateral sway. Poster Presentation at the Michigan Physical Therapy Association Fall Conference, Frankenmuth, MI.
- Alvarado, T., & Wing, J. J. (2017, March). Implementation of COPD assessment tools in mitigating the prevalence of COPD amongst rural Americans. Presentation at the Michigan Epidemiology Conference, Michigan Public Health Association, Grand Rapids, MI.

- Armistead, B., Slaughter, J., Kenyon, L. K., Lenski, M., Paneth, N., & Khoo, S. K. (2017, October). Expression of inflammatory genes in children with cerebral palsy. Presentation at Maternal-Fetal Crosstalk: Harmony vs. Conflict, Keystone Symposium on Molecular and Cellular Biology, Washington, D.C.
- Armistead, B., Slaughter, J., Kenyon, L. K., Lenski, M., Paneth, N., & Khoo, S. K. (2017, November). *Molecular biomarkers for early diagnostic of cerebral palsy.* Presentation at Neuroscience 2017, Society for Neuroscience, Washington, D.C.
- Bacon-Baguley, T. A., & Reinhold, M.
 I. (2017, October). *Telemedicine*in physician assistant education:
 A partnership with community
 agency. Presentation at the
 3rd national Telemedicine & Telehealth
 Service Provider Showcase, Arizona
 Telemedicine Program, Phoenix.
- Bailey-Fakhoury, C. Y. (2017, November). Memory telling and African American Motherwork: Transmitting a family's history of racial violence. Presentation at the American Educational Studies Association Annual Conference, Pittsburgh, PA.
- Baker, M., Eason, A., Miutz, L., & Gyorkos, A. M. (2017, April).

 Paleolithic diet and exercise improve metabolic and cardiovascular risk factors.

 Presentation at the Experimental Biology Annual Meeting, Chicago, IL.
- Baker, M., Eason, A., Miutz, L., & Gyorkos, A. M. (2017, November). Ancestral based diet and exercise improves metabolic and inflammatory profiles in metabolic syndrome. Presentation at the ACSM Annual Meeting, American College of Sports Medicine-Midwest Chapter, Grand Rapids, MI.

- Baker, B. J., Bekker, P., J. D., & Genther, T. (2017, October). Effect of body weight supported treadmill training on a person with traumatic head injury: A single subject design. Presentation at the Michigan Physical Therapy Association Fall Conference, Frankenmuth, MI.
- Baker, B. J., & Kinne, B. (2017, October). The use of vestibular rehabilitation for people with migraines; A systematic review. Presentation at the Michigan Physical Therapy Association Fall Conference, Holland, MI.
- Baker, B. J., & Kinne, B. (2017, October). Vestibular rehabilitation: Evaluation and treatment techniques. Presentation at the St Mary Mercy Livonia Health System, Livonia, MI.
- Barnhart, K. J., & Alsum, S. (2017, March). Putting people first: A Discussion on opiate overdose and Naloxone. Presentation at the 16th Annual Michigan Epidemiology Conference, Grand Rapids, MI.
- Beasley, J. A., Floyd-Slabaugh, C., & Leiras-Laubach, C. C. (2017, March). Juvenile idiopathic arthritis: A Systematic review of occupational therapy interventions. Presentation at the American Occupational Therapy Association Annual Meeting, American Occupational Therapy Association, Philadelphia, PA.
- Beaudoin, C., Lewis, C., Parker, T., & Tiemersma, K. L. (2017, March).

 Title IX compliance in college/university instructional physical activity programs.

 Presentation at the Society of Health and Physical Educators (SHAPE)

 America Annual Meeting, SHAPE,

 Boston, MA.
- Biddanda, B. (2017, September). *The Muskegon Lake Observatory Project*. Presentation at the CIGLR Annual Partners Meeting, Cooperative Institute for Great Lakes Research, University of Michigan, Ann Arbor, MI.

- Biddanda, B., & Knapp, K. (2017, August). A working system of in situ environmental sensors monitor changes in weather and water quality. Presentation at the Plankton Algae Workshop, American Water Works Association and GVSU-AWRI, Muskegon, MI.
- Biddanda, B. (2017, May). Finding the "Goldilocks Zone" for carbon cycling in a Great Lakes watershed. Presentation at the CIGLR Seminars, Cooperative Institute for Great Lakes Research, University of Michigan, Ann Arbor, MI.
- Branch, K., Ludwig, D. (2017, March). Examination of an interprofessional service-learning health expo: Healthcare students and health expo attendees. Podium presentation at the National Academies of Practices Conference. Philadelphia, PA.
- Brew, R. L. (2017, November). *Pipeline programming for health professions:*A guide to successful and innovative strategies. Presentation at the American Public Health Association Annual Meeting, American Public Health Association, Atlanta, GA.
- Cain, C., Wampler, P., Molla, A., Beelen, M. P., & Kraft, M. A. (2017, October). Geospatial analysis of household radon levels in Michigan. Presentation at the Geological Society of America -Annual Meeting, Geological Society of America, Seattle, WA.
- Caine, C., Wampler, P., Molla, A.,
 Beelen, M. P., & Kraft, M. A. (2017,
 November). Geospatial analysis of
 household radon levels in Michigan.
 Presentation at the American Institute
 of Professional Geologists Annual
 Meeting, American Institute of
 Professional Geologists (AIPG),
 Ann Arbor, MI.
- Capodilupo, J., & O'Hara, M. (2017, May). Prion vs. Prion-like human neurodegenerative diseases. Presentation at the Michigan Chapter of the Society for Neuroscience Annual Meeting, Society for Neuroscience, University of Michigan, Ann Arbor, MI.

- Cannizzo, R., & Wing, J. J. (2017, March). Risk factor predictability for Methicillin-resistant Staphylococcus aureus at a mid-size hospital in western Michigan. Presentation at the Michigan Epidemiology Conference, Michigan Public Health Association, Grand Rapids, MI.
- Chester, J., & Wing, J. J. (2017, March). Influence of socioeconomic status on event-free survival in children diagnosed with acute lymphoblastic leukemia. Presentation at the Michigan Epidemiology Conference, Michigan Public Health Association, Grand Rapids, MI.
- Cline, G. A., Jadose, E., & Coviak, C. P. (2017, October). Outreach by care management teams & community health workers with frail elderly in Muskegon County: First year outcomes & ROI. Presentation at the Michigan Premier Public Health Conference, Michigan Association for Local Public Health, Mackinac Island, MI.
- Coviak, C. P., & Tusch, G. (2017, October). Opportunities and challenges in harnessing West Michigan's health care big data. Presentation at the Great Lakes Health Connect Fall Summit, Great Lakes Health Connect, Grand Valley State University, Grand Rapids, MI.
- Cox, Z., Kim, J., Pillivant, D., Thomas, T., Dundore, T., & Beaudoin, C. (2017, June). Effect of bench press load knowledge on repetitions, RPE, and attentional focus. Presentation at the American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Denver, CO.
- Damstra, K. M., Platt, J., & Kibler, K. (2017, September). Moms to moms breastfeeding project in Kent County. Presentation at the Midwest Interprofessional Practice, Education, and Research Center Conference, Grand Valley State University, Grand Rapids, MI.

- Davis, R. L., & Ohman, J. (2017, July). Finding one's way within a virtual senior living community for older adults with and without Alzheimer's Disease. Presentation at IAGG World Congress on Gerontology and Geriatrics, IAGG and GSA, San Francisco, CA.
- Deweerd, D. J., Wampler, P., Vannier, R. G., Beelen, M. P., & Kraft, M. A. (2017, November). Community outreach, water resources assessment, and Sawyer Filter evaluation near Deschapelles, Haiti. Presentation at the American Institute of Professional Geologists Annual Meeting, American Institute of Professional Geologists (AIPG), Ann Arbor, MI.
- Deweerd, D. J., Wampler, P., Vannier, R. G., Beelen, M. P., & Kraft, M. A. (2017, October). Community outreach, water resources assessment, and Sawyer Filter evaluation near Deschapelles, Haiti. Presentation at the Geological Society of America Annual Meeting, Geological Society of America, Seattle, WA.
- DeVries, D. R. (2017, November).

 Public policy and regulatory update for recreational therapists. Presentation at the 2017 KATRA Workshop,

 Kentucky Area Therapeutic Recreation Association, Richmond, KY.
- DeWilde, M. A. (June, 2017). Revolution and evolution: From philosophy to neuroethics in the curriculum.

 Presentation at the Neuroethics
 Network Annual Conference,
 Neuroethics Network, Paris, France.
- Dillard, A. (2017, March). "Feelings-ofrisk" and narrative messages: Evidence for an experiential system motivating health behaviors. Presentation at the Gettysburg College Psychology Colloquium, Gettysburg, PA.

- Eason, A., Baker, M., Miutz, L., & Gyorkos, A. M. (2017, November). BDNF may act as a metabotrophin mediator for diet- and exercise-induced cognitive and metabolic improvements. Presentation at the ACSM Annual Meeting, American College of Sports Medicine-Midwest Chapter, Grand Rapids, MI.
- Elrod, G. B. (2017, May). The needs of older adults recently diagnosed with cancer. Presentation at the ONS Congress, Oncology Nursing Society, Denver, CO.
- Forbes-Benjamin, J. S., June, C. M., Mitchell, J. M., Powers, R. A., & Leonard, D. (2017, July). *OXA-139: A class D β-lactamase clinical variant from Acinetobacter baumannii that possesses an unusually high turnover rate for cephalosporins*. Presentation at the 31st Annual Symposium of the Protein Society, the Protein Society, Montreal, Canada.
- Foster, G. J., Davis, S. Z., Checkley, L. A., McDew-White, M., Nosten, F. H., Anderson, T. J., Khoo, S. K., & Ferdig, M. T. (2017, September). A two-step approach to transcriptional interrogations of genetic crosses in Plasmodium falciparum. Presentation at the 28th Annual Molecular Parasitology Meeting, Marine Biological Laboratory, Woods Hole, MA.
- Frantzeskakis, M., & Taylor, M. (2017, December). *The Influence of Nato3 on LMX1 Gene Expression*. Presentation at the American Society for Cell Biology General Meeting, American Society for Cell Biology (ASCB), Philadelphia, PA.
- Franszeskakis, M., & Taylor, M. (2017, November). *Nato3 regulation of DA neurogenesis*. Presentation at the West Michigan Regional Undergraduate Research Conference, Van Andel Research Institute, Grand Rapids, MI.

- Geenen, D. L. (2017, August). Early
 Cell-Cell coupling impairs transplanted
 stem cell retention and efficacy in the
 ischemic cardiomyocyte and murine
 heart. Presentation at the American
 Physiological Society: Aging and
 Cardiovascular Meeting, American
 Physiological Society, Westminster, CO.
- Goehring, M., & Blackwood, J. (2017, March). PT as part of the comprehensive geriatric assessment. Presented at the Michigan Physical Therapy Association Spring Conference in East Lansing, MI.
- Green, M., & & Opdycke, S. (2017, October). The use of an Alter G treadmill for gait velocity improvement in a patient with a chronic incomplete spinal cord injury: A case report. Poster Presentation at the Michigan Physical Therapy Association Fall Conference, Michigan Physical Therapy Association, Frankenmuth, Michigan.
- Grapczynski, C. A., MacDonald, K., Rohr, L., & Hillpot, C. (2017, April). Female veterans: Satisfying patterns of daily activities as defined by the Life Balance Model. Presentation at the American Occupational Therapy National Conference, American Occupational Therapy Association (AOTA), Philadelphia, PA.
- Guida, T., & Khoo, S. K. (2017, March).

 Investigation of TNFRSF1A (tumor necrosis factor receptor super family member 1A) gene expression in children with typhoid fever. Presentation at the 2nd Annual Cell & Molecular Biology Research Symposium, Grand Valley State University, Allendale, MI.
- Hahs, E., Armistead, B., & Khoo, S. K. (2017, November). Effects of microRNA 34b/c in SH-SY5Y cells for Parkinson's disease study. Presentation at the Neuroscience 2017 General Meeting, Society for Neuroscience, Washington, D.C.

- Hahs, E., & Khoo, S. K. (2017, November). Effects of microRNA 34b/c in SH-SY5Y cells for Parkinson's disease study. Presentation at the West Michigan Regional Undergraduate Science Conference, Van Andel Institute, Grand Valley State University, Aquinas College, Calvin College, Hope College, Grand Rapids, MI.
- Harrah, A., Armistead, B., & Khoo, S. K. (2017, July). microRNA 34b/c as disease progression biomarkers for Parkinson's disease. Presentation at the Mid-Michigan Symposium for Undergraduate Research Experiences (Mid-SURE), Michigan State University, East Lansing, MI.
- Harrah, A., Armistead, B., & Khoo, S. K. (2017, November). microRNA 34b/c as disease progression biomarkers for Parkinson's disease. Presentation at the West Michigan Regional Undergraduate Science Conference, Van Andel Institute, Grand Valley State University, Aquinas College, Calvin College, Hope College, Grand Rapids, MI.
- Harrington, S. A., & Keep, S. (2017, September). Intercollegiate alliance of health and wellness to improve health outcomes among individuals with a low socioeconomic status and limited access to health care. Presentation at the ACHNE Annual Institute, Association of Community Health Nurse Educators, New Orleans, LA.
- Harro, C. C., Conley, K., Garascia, C., & Shefferly, A. (2017, February).

 Reliability and validity of the Rapid Step
 Up Test in individuals with Parkinson's
 disease and healthy adults. Presented
 at the American Physical Therapy
 Association Combined Sections
 Meeting, American Physical Therapy
 Association, San Antonio, TX.

- Harro, C., Kelch, A., Hargis, C., & DeWitt, A. (2017, October). Comparison of balance performance on force platform measures in persons with Parkinson's disease and healthy adults. Presentation at the Michigan Physical Therapy Association Annual Fall Conference, Michigan Physical Therapy Association (MPTA), Frankenmuth, MI.
- Hedges, K. (2017, November).

 Anthropological Responses to Health
 Emergencies. Presentation at the
 American Anthropological Association
 Annual Meeting, American
 Anthropological Association,
 Washington, D.C.
- Hedges, K. (2017, December). *Medical pluralism in Maasailand*. Presentation at the American Anthropological Association Annual Meeting, American Anthropological Association, Washington, D.C.
- Hoffert, D. C. (2017, March).

 Implementation of a treatment plan in a rural health clinic for patients with a diagnosis of migraine headache.

 Presentation at the 2017 MICNP Annual Conference, Michigan Council of Nurse Practitioners (MICNP),

 Detroit, MI.
- Hoogenboom, B. J. (2017, October). The movement system: Where are we going as a profession? Presentation at the Michigan Physical Therapy Association Fall Conference, Michigan Physical Therapy Association, Frankenmuth, MI.
- Hoogenboom, B. J., Dekkinga, H., Huyser, K., & Miller, E. (2017, August). A comparison of EMG activation in shoulder girdle musculature during open- and closed-handed grip external rotation elastic resistance exercise. Presentation at the Theraband Research Academy Annual Meeting, Performance Health Academy, Kona, HI.

- Hoogenboom, B. J., & Voight, M. (2017, July). *Scrape, tape, and move (Parts 1-4)*, "Scrape, tape, and move". Presentation at the Theraband Research Academy Meeting: Advances in Clinical Education, Performance Health Academy, Honolulu, HI.
- Houghton-Rahrig, L. D., & Rivera-Salas, C. (2017, November). Acculturation of Mexican immigrants and the prevalence of NAFLD: A review. Presented at the ISONG 2017 Congress: Precision Nursing: Through Research, Education and Practice, International Society of Nurses in Genetics, Reston, VA.
- Hughes Carter, D. L. (2017, December). Evidence-based practice guidelines for screening for diabetic kidney disease. Presented at the Michigan Center for Rural Health Nursing Grand Rounds, jointly provided by the MSU College of Nursing and Michigan Center for Rural Health, East Lansing, MI.
- Hughes Carter, D. L., & Cheng-Ching, L. (2017, October). A nurse practitioner led inter-professional quality improvement initiative in primary care: Capturing the diagnosis of diabetic kidney disease in the elderly. Presented at the 2017 Michigan Nursing Summit, The Michigan Center of Nursing, Thompsonville, MI.
- Huizinga, G. A. (2017, November). New colors for nursing education: Including transgender health content in the classroom. Presented at the AACN Baccalaureate Education Conference, American Association of Critical Care Nurses (AACN), Atlanta, GA.
- Huizinga, G. A. (2017, November).

 Nursing action: Working with the LGBTQ older adult population. Presented at the AACN Baccalaureate Education Conference, American Association of Critical Care Nurses (AACN), Atlanta, GA.

- Jacquot, J., Keenlance, P., & Graham, D. (2017, July). Lessons learned in a wildlife disease study using a citizen science approach. Presented at the 12th International Mammalogical Congress, International Federation of Mammalogists and the Australian Mammal Society, Perth, Australia.
- Johnson, I., & Walker, E. (2017, October). Building physically literate students through TGFU. Presented at Shape Michigan, the Society of Physical Health Educators, Lansing, MI.
- Jones, C., Wing, J. J., & Britten, N. (2017, March). Relating social determinants of health to STI cases in Berrien County. Presented at the Michigan Epidemiology Conference, Michigan Public Health Association, Grand Rapids, MI.
- Jones-Rikkers, C., & Sanford, J.

 (2017). Triple bottom line (3BL) and sustainability: A major change in corporate management. Presented at the Decision Sciences Institute Midwest Region, Decision Sciences Institute, Grand Rapids, MI.
- June, C. M., Russell, C. P., Klamer, Z. L., Schroder, E. C., Powers, R., Szarecka, A., & Leonard, D. (2017, July). *X-ray crystallography reveals mechanism for two gain-of-function clinical variant carbapenemases from Acinetobacter baumannii*. Presented at the 31st Annual Symposium of the Protein Society, The Protein Society, Montreal, Canada.
- Kenyon, L. K., Breaux, B., Jones, M., Livingstone, R., & Tsotsoros, J. (2017, November). What are the attitudes and practices of pediatric therapists concerning power mobility use in children? Presented at the 2017 Oceania Seating Symposium, Seating to Go, Rotoura, New Zealand.

- Kenyon, L.K., Farris, J., & Miller, W. (2017, June). Using shared control to enhance power mobility training across the lifespan. Presented at the RESNA 2017 Annual Conference, Rehabilitation Engineering Society of North America (RESNA), New Orleans, LA.
- Kenyon, L. K., & McDonald, R. (2017, November). Ageing with a disability: how does it affect wheeled mobility and seating? Presented at the 2017 Oceania Seating Symposium, Seating to Go, Rotoura, New Zealand.
- Kenyon, L. K., & Miller, W. C. (2017, November). Evaluating of seating and mobility outcomes: enhancing evidencebased clinical practice. Presented at the 2017 Oceania Seating Symposium, Seating to Go, Rotoura, New Zealand.
- Kenyon, L. K., Farris, J. (2017, November). Empowering ability and function: power mobility training for children with multiple severe disabilities. Presented at the 2017 Oceania Seating Symposium, Seating to Go, Rotoura, New Zealand.
- Kenyon, L. K., Jones, M., Livingstone, R., Breaux, B., Tsotsoros, J. (2017, November). What are the attitudes and practices of pediatric therapists concerning power mobility use in children? Presented at the 2017 Oceania Seating Symposium, Seating to Go, Rotoura, New Zealand.
- Kenyon, L. K., Mortenson, W. B., & Miller, W. C. (2017, November). "There is power in mobility": A qualitative study exploring how children learn to use power mobility, The 2017 Oceania Seating Symposium, Rotoura, New Zealand.

- Kenyon, L. K., & Huegel, M. W. (2017, November). Clinical application of the congenital muscular torticollis clinical practice guidelines: A case report.
 Presented at the 2017 Academy of Pediatric Physical Therapy Annual Conference, Academy of Pediatric Physical Therapy, Cincinnati, OH.
- Kenyon, L. K., Farris, J., Calkins, T., Niles, P., & Omiljan, S. (2017, November). Providing power mobility access and training using a tongue-activated access method: a case report. Presented at the 2017 Academy of Pediatric Physical Therapy Annual Conference, Academy of Pediatric Physical Therapy, Cincinnati, OH.
- Kenyon, L. K., Farris, J., Barney, M., Martin, K., & Torgerson, K. (2017, November). The impact of power mobility training on a young child with Pelizaeus-Merzbacher Disease: A case report. Presented at the 2017 Academy of Pediatric Physical Therapy Annual Conference, Academy of Pediatric Physical Therapy, Cincinnati, OH.
- Kenyon, L. K. (2017, November). *Em-POWERment: Power mobility training methods for children and adolescents with multiple severe disabilities.* Presented at the Canadian Association of Occupational Therapists Webinar, Canadian Association of Occupational Therapists, Webinar.
- Kenyon, L. K., Farris, J., Aldrich, N. J., Usoro, J., & Rhodes, S. S. (2017, October). The impact of power mobility training on EEG activity in children with multiple, severe disabilities: A pilot study. Presented at the 2017 Michigan Physical Therapy Association Fall Conference, Michigan Physical Therapy Association, Frankenmuth, MI.
- Kenyon, L. K., & Huegel, M. W. (2017, October). Clinical application of the congenital muscular torticollis clinical practice guidelines: A case report.

 Presented at the 2017 Michigan Physical Therapy Association Fall Conference, Michigan Physical Therapy Association, Frankenmuth, MI.

- Kenyon, L. K., Farris, J., Calkins, T., Niles, P., & Omiljan, S. (2017, October). Providing power mobility access and training using a tongue-activated access method: A case report. Presented at the 2017 Michigan Physical Therapy Association Fall Conference, Michigan Physical Therapy Association, Frankenmuth, MI.
- Kenyon, L. K., Farris, J., Barney, M.,
 Martin, K., & Torgerson, K. (2017,
 October). The impact of power mobility
 training on a young child with PelizaeusMerzbacher Disease: A case report.
 Presented at the 2017 Michigan
 Physical Therapy Association Fall
 Conference, Michigan Physical Therapy
 Association, Frankenmuth, MI.
- Kenyon, L. K., & Farris, J. (2017,
 September). Providing power mobility for
 children with multiple, severe disabilities:
 Training methods and outcomes.
 Presented at the 71st Annual Meeting
 of the American Academy for Cerebral
 Palsy and Developmental Medicine,
 American Academy for Cerebral
 Palsy and Developmental Medicine,
 Montreal, Canada.
- Kenyon, L. K., Mortenson, W. B., & Miller, W. C. (2017, September). "There is power in mobility" a qualitative study exploring how children learn to use power mobility. Presented at the 71st Annual Meeting of the American Academy for Cerebral Palsy and Developmental Medicine, American Academy for Cerebral Palsy and Developmental Medicine, Montreal, Canada.
- Kenyon, L. K., & Farris, J. (2017, June).

 Using the Power Mobility Training Tool to guide power mobility training for children with multiple, severe impairments.

 Presented at the RESNA 2017 Annual Conference, Rehabilitation Engineering Society of North America (RESNA), New Orleans, LA.

- Kenyon, L. K., Farris, J., & Reffeor, W. S. (2017, June). Best practices for working with non-technical project sponsors.

 Presented at the 2017 American Society of Engineering Educators (ASEE) Conference & Exposition, American Society of Engineering Educators (ASEE), Columbus, OH.
- Kenyon, L. K. (2017, March). Empowering practice: How do you know if your patient is improving? Webinar, British Columbia Neuroscience Division, Webinar.
- Kenyon, L. K., Farris, J., Aldrich, N. J., & Rhodes, S. S. (2017, March). *Changes* in *EEG spectra* in response to power mobility training. Presented at the 2017 International Seating Symposium, University of Pittsburgh, Nashville, TN.
- Kenyon, L. K., & Farris, J. (2017, March). Creating partnerships among clinicians and engineering programs. Presented at the 2017 International Seating Symposium, University of Pittsburgh, Nashville, TN.
- Kenyon, L. K., & Miller, W. (2017, March). Empowering practice: Evaluating seating and mobility outcomes. Presented at the 2017 International Seating Symposium, University of Pittsburgh, Nashville, TN.
- Kenyon, L. K., & Farris, J. (2017, March). Power mobility for children with multiple severe disabilities. Presented at the 2017 International Seating Symposium, University of Pittsburgh, Nashville, TN.
- Kenyon, L. K., Peterson, C., Hostnik, L., McElroy, R., & Farris, J. (2017, February). Pediatric power mobility training methods: a systematic review. Presented at the 2017 Combined Sections Meeting of the American Physical Therapy Association, American Physical Therapy Association, San Antonio, TX.

- Keider, R. C. (2017, September). A case for re-optimization of radiation therapy dose to the prostate and organs at risk. Presented at the Michigan Society of Radiologic Technologists General Meeting, American Society of Radiologic Technologists, Bay City, MI.
- Kilbourne, J. (2017, June). Using traditional games to promote sustainability & peace in the north.

 Presented at Understanding Peace in the Arctic, UiT University of the Arctic, Tromso, Norway.
- Kilbourne, J. (2017, June). *Traditional Arctic Games peace and sustainability.*Presented at the Ninth International
 Congress of Arctic Social Sciences,
 International Congress of Arctic Social
 Sciences, Umea, Sweden.
- Kinne, B. L., Baker, B. J., & Chesser, B. T. (2017, October). The use of vestibular rehabilitation for individuals with migraines: A systematic review. Presented at the Michigan Physical Therapy Association Fall Conference. Michigan Physical Therapy Association, Frankenmuth, MI.
- Kinne, B. L. (2017, December).

 Manual therapy for primary and secondary headaches. Presented at the Western District Membership Meeting, Michigan Physical Therapy Association, Holland, MI.
- Kinne, B. L., & Baker, B. J. (2017, October). *Vestibular rehabilitation* (*Day* 2). Presented as a Continuing Education Course, St. Mary Mercy Hospital, Livonia, MI.
- Kinne, B. L., & Baker, B. J. (2017, October). *Vestibular rehabilitation* (*Day 1*). Presented as a Continuing Education Course, St. Mary Mercy Hospital, Livonia, MI.

- Kinne, B. L., Bott, J. L., Cron, N. M., & Iaquaniello, R. L. (2017, October).

 Effectiveness of vestibular rehabilitation on concussion-induced vertigo: A systematic review. Presented at the Fall Conference of the Michigan Physical Therapy Association, Michigan Physical Therapy Association, Frankenmuth, MI.
- Kinne, B. L., Baker, B. J., & Chesser, B. T. (2017, October). The use of vestibular rehabilitation for individuals with migraines: A systematic review. Presented at the Fall Conference of the Michigan Physical Therapy Association, Michigan Physical Therapy Association, Frankenmuth, MI.
- Kinne, B. L. (2017, April). Dealing with the unsafe student in clinical practice. Presented at the Special Interest Group for Clinical Education, Michigan Physical Therapy Association, East Lansing, MI.
- Kinne, B. L. (2017, March). Affective domain development. Presented at the West Michigan Clinical Education Forum, Michigan Physical Therapy Association, Grand Rapids, MI.
- Kinne, B. L., Perla, M. J., & Weber, D. T. (2017, February). Semont Maneuver versus Epley Maneuver for canalolithiasis of the posterior semicircular canal: A systematic review. Presented at the Combined Sections Meeting, American Physical Therapy Association, San Antonio, TX.
- Knapp, K., & Biddanda, B. (2017, September). Dynamics of water, carbon and oxygen in Muskegon Lake. Presented at the CIGLR Annual Partners Meeting, Cooperative Institute for Great Lakes Research (CIGLR), University of Michigan, Ann Arbor, MI.
- Kopacki, N. B. (2017, October). Updates on sepsis: An ER perspective. Presented at the Michigan Academy of Physician Assistants Annual Meeting, Michigan Academy of Physician Assistants (MAPA), Grand Rapids, MI.

- Kovacs, D., & Cannon, A. (2017, August). Toxicology for chemists: Connecting toxicology and chemistry topics for the design of chemical products that have reduced human and environmental impacts. Presented at the 10th World Congress - Alternative and Animal Use in Life Sciences, American Society of Toxicology, Seattle, WA.
- Kovacs, D. G. (2017, June). An introduction to green chemistry with a twist toward social and environmental justice.

 Presented at the ACS-National Green Chemistry & Engineering annual conference, American Chemical Society-Green Chemistry Institute, Reston, VA.
- Kovacs, D. G., & Rediske, R. (2017, June). Designing a sustainable toxicology undergraduate curriculum. Presented at the ACS-National Green Chemistry & Engineering annual conference, American Chemical Society-Green Chemistry Institute, Reston, VA.
- Lee, J. (2017, November). Police utilization and victim-police interactions in intimate partner violence. Presented at the 73rd American Society of Criminology Meeting, American Society of Criminology, Philadelphia, PA.
- Little, J. (August, 2017). Basics of benefit segmentation. Presented at the Spectrum Health Rockford Patient Advisory Board Meeting, Spectrum Health, Rockford, MI.
- Liu, Q., Anderson, E., & Biddanda, B. (2017, September). Modeling the hydrodynamics of Muskegon Lake estuary. Presented at the CIGLR Annual Partners Meeting, Cooperative Institute for Great Lakes Research, University of Michigan, Ann Arbor, MI.
- Lohr, K. (2017, September). Late preterm infants. Presented at the In-service, Mercy Health Muskegon, Women and Children's Services/Hackley Hospital, Muskegon, MI.

- Long, V., Williams, E., Kierkus, C. A., & Harvey, B. C. (2017, October). Are we dreaming or doing? How health science graduates access information in their professional lives. Presented at the Pure Michigan: Joint Conference of the Midwest Chapter-Medical Library Association and the Michigan Health Science Libraries Association, Ypsilanti, MI.
- Long, V., Williams, E., Harvey, B. C., & Kierkus, C. A. (2017, May). Are we dreaming or doing? How health science graduates access information in their professional lives. Presented at the Medical Library Association 117th Annual Meeting and Exhibition, Medical Library Association, Seattle, WA.
- MacQuillan, E. L. (2017, October).

 Breastfeeding after gestational diabetes:

 GIS analysis of maternal-infant health
 interventions. Presented at the Food
 and Nutrition Conference and Expo,
 Academy of Nutrition and Dietetics,
 Chicago, IL.
- MacQuillan, E. L. (2017, October). Spatial analysis of gestational diabetes prevalence in Michigan. Presented at the Michigan Premier Public Health Conference, Michigan Public Health Association, Mackinac Island, MI.
- MacQuillan, E. L. (2017, June).

 Breastfeeding after gestational diabetes:

 Using GIS to explore maternal-infant health program coverage. Presented at the SPER annual conference,

 Society for Pediatric and Perinatal Epidemiology (SPER), Seattle, WA.
- Manderscheid, A., & Teman, S. (2017, October). Utilizing in situ simulation to improve high reliability outcomes: A case study. Presented at the HPI Press Ganey Executive Leadership Safety Summit, HPI Press Ganey, Charlotte, NC.

- Martin, J. A. (2017, October).

 Environmental justice in Michigan:
 The role of scholars and practitioners.
 Presented at the Michigan Sociological
 Association Annual Meetings,
 Michigan Sociological Association,
 Grand Rapids, MI.
- Martinez, D., & DeLano-Taylor, M. (2017, December). The impact of phosphorylation mimicking Nato3 on dopamine neuron marker expression.

 Presented at the American Society for Cell Biology, American Society for Cell Biology (ASCB), Philadelphia, PA.
- Miutz, L., Baker, M., Eason, A., & Gyorkos, A. M. (2017, April). The effects of a ketogenic diet and exercise interventions on cognitive function.

 Presented at the Experimental Biology Annual Meeting, American Association of Anatomists, Chicago, IL.
- Mlynarczyk, S., Anderson, K., DeWys, M., Vennema, C., & Skrabis, N. (2017, November). Creating a reliable and valid tool to assess premature and medically fragile infants. Presented at the 2017 Early On Conference, Clinton County CRESA, Early On of Michigan Training and TA, and the Michigan Department of Education, Kalamazoo, MI.
- Molla, A. R., Wampler, P. J., & Cain,
 C. (2017, November). Geographic information system (GIS) analysis of household radon distribution in Michigan.
 Presented at the American Public Health Association General Meeting,
 American Public Health Association (APHA), Atlanta, GA.
- Mothersell, W. (2017, April). *Lean and organization transformation*. Presented at the Midwest Decision Science Institute Conference, Midwest Decision Science Institute, Grand Rapids, MI.
- Nagelkerk, J., Pawl, B., & Harro, C. (2017, March). Midwest Interprofessional Practice, Education, and Research Center (MIPERC) Interprofessional Education Student Certificate. Presented at the National Academies of Practice Annual Forum, National Academies of Practice, Philadelphia, PA.

- Niemchick, K. (2017, November).

 Association between blood serum
 antioxidant status and cognitive function.
 Presented at the American Public
 Health Association General Meeting,
 American Public Health Association,
 Atlanta, GA.
- Ozga, K. L., Kenyon, L. K., Roberts, B., Schweitzer, B., Strong, W., & Stephenson, P. (2017, October). Clinical instructors' perceptions of effective clinical instructor behaviors. Presented at the 2017 Michigan Physical Therapy Association Fall Conference, Michigan Physical Therapy Association, Frankenmuth, MI.
- Parker, T. (2017, May). Practical nutrition for the practicing clinician. Presented at the 2017 Annual West Michigan Athletic Trainers Conference, Center for Physical Rehabilitation, Belmont, MI.
- Pelon, S. B. (2017, November). Thriving in hospice social work: Combatting compassion fatigue. Presented at the NHPCO Annual Conference, National Hospice and Palliative Care Organization (NHPCO), New Orleans, LA.
- Peterson, G., Czowski, B., Nelson, A., Bracken, A., Dickson, T., Goodwin, R., & Linn, D. (2017, May). Use of a drug for Alzheimer's for neuroprotection in Glaucoma: Cell culture and confocal studies. Presented at the Michigan Chapter Society for Neuroscience Meeting 2017, University of Michigan, Ann Arbor, MI.
- Peterson, V. (2017, June). Plato's allegory of the cave: Literacy and the good. Presented at the 18th Annual Convention of the Media Ecology Association, Media Ecology Association, Moraga, CA.
- Petillo, D., Wright, R., Hiskes, B., Mitchell, R., Armistead, B., Hahs, E., Forsgren, L., Otieno, S., & Khoo, S. K. (2017, November). Alpha synuclein-related microRNAs as biomarkers for Parkinson's disease. Presented at Neuroscience 2017, Society for Neuroscience, Washington, D.C.

- Raaymakers, S. A. (2017, September).

 Basic point-of-care ultrasound. Presented at the Michigan Academy of Physician Assistants General Meeting, Michigan Academy of Physician Assistants, Grand Rapids, MI.
- Reidsma, M. S. (2017, June). *Inward UX: Improve your library's work culture with UX.* Presented at UX Libs III, UX Libs III, Glasgow, Scotland, United Kingdom.
- Reinhold, M. I., & Bacon-Baguley, T.
 A. (2017, September). Telemedicine
 in physician assistant education:
 A Partnership with community
 agency. Presented at the Midwest
 Interprofessional Practice, Education,
 and Research Conference, Grand Valley
 State University, Grand Rapids, MI.
- Rinker, D. (2017, October). Adolescent risk behavior screening in primary care. Presented at the MICNP Traverse City Chapter, Michigan Council of Nurse Practitioners (MICNP), Traverse City, MI.
- Rinker, D. L., & Louchart, R. (2017, July). Engaging the primary care provider and team with oral health. Presented at the Michigan Primary Care Association Annual Conference, Michigan Primary Care Association, Acme, MI.
- Rivera-Salas, C., & Houghton-Rahrig, L. (2017, April). Acculturation of Mexican immigrants and the prevalence of NAFLD: A review. Presented at the Midwest Nursing Research Society 41st Annual Conference: Harnessing Big Data and Nursing Science to Improve Health, Midwest Nursing Research Society, Minneapolis, MN.
- Robertson, S., Armistead, B., & Khoo, S. K. (2017, November). AIM2 (Absent in melanoma 2) gene as diagnostic biomarker for typhoid fever. Presented at the West Michigan Regional Undergraduate Science Conference, jointly hosted by Van Andel Institute, Grand Valley State University, Aquinas College, Calvin College, Hope College, Grand Rapids, MI.

- Rose, J. M., Avery, A., Sjoerdsma, D., & Smith, C. (2017, October). Predictive validity of the Move2Perform protocol to identify injury risk in collegiate athletes. Poster presentation at the Michigan Physical Therapy Association Fall Conference, Michigan Physical Therapy Association, Frankenmuth, MI.
- Rose, J., & Dacy, J. (2017, October).

 NMES for the management of dysphagia.

 Presented at the NMES for the

 Management of Dysphagia, Ciao
 Seminars, Dallas, TX.
- Rose, J. (2017, June). NMES in the management of dysphagia. Presented at the NMES in the Management of Dysphagia, Ciao Seminars, Detroit, MI.
- Rose, J. (2017, April). Surface electromyography for the management of dysphagia. Presented at the Surface Electromyography for the Management of Dysphagia, Ciao Seminars, Denver, CO.
- Rose, J. (2017, March). NMES for the management of dysphagia. Presented at the NMES for the Management of Dysphagia, Ciao Seminars, Columbus, OH.
- Rose, J., & Cole, S. (2017, March). NMES for the management of dysphagia.

 Presented at the NMES for the Management of Dysphagia, Ciao Seminars, Atlanta, GA.
- Russo, C., & DeLano-Taylor, M. (2017, November). Barx2 can drive expression of astrocytic and neuronal markers similar to glioma "asteron" cells. Presented at the Society for Neuroscience General Meeting, Society for Neuroscience, Washington, D.C.
- Scanlon, S., French, D., & Shoemaker, M. J. (2017, January). *Post-concussion inter-professional education simulation*. Presented at the 17th International Meeting on Simulation in Healthcare, Society for Simulation in Healthcare, Orlando. FL.

- Sergeant, A., & Sergeant, C. S. (2017, April). An exploratory study of change management and system outages in a hospital setting. Presented at the 2017 Midwest Decision Sciences Institute, Midwest Decision Sciences Institute, Grand Rapids, MI.
- Shaffer, C. A., & Milstein, M. (2017, March). An anthropological approach to ecosystem health in an indigenous reserve in Guyana. Presented at the University of Minnesota, Institute on the Environment, St. Paul, MN.
- Shoemaker, M. J., Vaughn, D. W.,
 Bilger, B., Hooker, D., Lamb, C. J.,
 & Ginsberg, W. (2017, February).
 Clinical decision making abilities of
 physical therapists to determine the need
 for medical referral. Presented at the
 American Physical Therapy Association
 Combined Sections Meeting, American
 Physical Therapy Association (APTA),
 San Antonio, TX.
- Sisson, L. G., & Lown, D. (2017, July). The impact of a gleaning program on vegetable intake in low-income seniors. Presented at the 2017 Annual Society for Nutrition Education and Behavior Meeting, Society for Nutrition Education and Behavior, Washington, D.C.
- Sisson, L. G. (2017, November). *Good Food Cultivating community.* Presented at the Southeast Michigan Dietetic Association General Meeting, Southeast Michigan Dietetic Association, Southfield, MI.
- Smith, E., Kenyon, L. K., Field, D., & Miller, W. (2017, March). Powered wheelchair provision: Current practices and opportunities. Presented at the 2017 International Seating Symposium, University of Pittsburgh, Nashville, TN.
- Spratt, M., Thoe, J., & Clifford Hart, D. (2017, September). Polarity kinase Orb6 mediates localization of cytokinesis node proteins Mid1 and Cdr2. Presented at the American Society of Cell Biology Toledo CellulART Meeting, American Society of Cell Biology, Toledo, OH.

- Springsdorf, R. H., Mutete, D., Morales, A. J., Werner, J. P., Mitchell, J. M., & Powers, R. (2017, May). Novel boronic acid inhibitors of OXA-24 to combat resistance of -lactam antibiotics. Presented at the 67th Annual Meeting of the American Crystallographic Association, American Crystallographic Association, New Orleans, LA.
- Stalter, A., Eardley, D., DeBlieck, C.,
 Blanchette, L., & Harrington, S., L.
 W. (2017, November). Crosswalk
 between OMAHA SYSTEM and guiding
 undergraduate community/public health
 education documents. Presented at the
 Association of Community Health Nurse
 Educators Annual Institute, Association
 of Community Health Nurse Educators
 (ACHNE), New Orleans, LA.
- Stansbie, P. M. (2017, June). The motivations and experiences of community garden participants in Scotland, and the role food growing plays in the development of their communities. Presented at the Regional Studies Association Annual Conference, Regional Studies Association (RSA), Dublin, Ireland.
- Stoddard, J. (2017, October). *Comparison of communicable disease in Cuba and the United States*. Presented at the Institute of Global Health Showcase. Duke University, Durham, NC.
- Strouse, S. M. (2017, October). Thinking of nursing through the prism of culture: Reflections on the profession. Presented at the Fall Research Event, Sigma Theta Tau International Kappa Epsilon, Zeeland, MI.
- Summers, J. J., Suarez Balcazar, Y., & Arias, D. (2017, March). Addressing health disparities through culturally relevant scholarship of practice. Presented at the Scholarship of Practice Day, University of Illinois at Chicago, Chicago, IL.

- Sutliffe, C. A., TenBrink, W., Gier, C.,
 Shepherd, S., Mitten, S., Steinberger,
 M., Riley, B., & Fleeger, T. (2017,
 September). Alcoholism in elderly
 patients: Characteristics of patients and
 impact on the emergency department.
 Presented at the SAEM Midwest
 Regional Meeting, Society of Academic
 Emergency Medicine (SAEM),
 Grand Rapids, MI.
- Sutliffe, C. A., Fleeger, T., Halasa, R., Brown, A., Beckett, R., & Patel, D. (2017, September). Social work services in the emergency department: Strategies to provide prescription drug assistance for elderly patients. Presented at the SAEM Midwest Regional Meeting, Society of Academic Emergency Medicine (SAEM), Grand Rapids, MI.
- Sutliffe, C. A., Cook, A., Michel, K., Harvey, L., & Chassee, T. (2017, September). Suicidal ideation in the elderly: Psychosocial risk factors and precipitants. Presented at the SAEM Midwest Regional Meeting, Society of Academic Emergency Medicine (SAEM), Grand Rapids, MI.
- Swift, M. S. M. (2017, April). Using Google data analytics and Advertising to improve web based product usage. Presented at the Midwest Decision Sciences Conference, Midwest Decision Sciences Institute, Grand Valley State University, Grand Rapids, MI.
- Thomas, P. L. (2017, December). 2017

 Review and planning. Presented at
 the Michigan Organization of Nurse
 Leaders Annual Conference, Michigan
 Organization of Nurse Leaders,
 Howell, MI.
- Thomas, P. L. (2017, November).

 Preparing for the journey: Packing,
 touring, and sightseeing empowerment
 for nurses. Presented at the Inaugural
 Nursing Leadership Symposium,
 Baylor, Scott, & White Health System,
 Fort Worth, TX.

- Thomas, P. L. (2017, November).

 Leadership conversations. Presented at the Michigan Organization of Nurse Leaders—District 1 Meeting, Michigan Organization of Nurse Leaders, Northville, MI.
- Thomas, P. L. (2017, July). Clinical nurse leader education, partnerships, and simulation. Presented at the International Graduate Faculty and Student Symposium, Tsukuba University School of Medicine and Medical Sciences, Tsukuba, Japan.
- Thomas, P. L. (2017, June). *CNL role development and academic-practice partner outcomes*. Presented at the Global Nursing Initiative, Japanese Red Cross, Tokyo, Japan.
- Thomas, P. L. (2017, June). *CNL* role development. Presented at the International Symposium, Japanese Red Cross University and Japanese Nurses Association, Tokyo, Japan.
- Thomas, P. L. (2017, June).

 Transformational leadership and change theory. Presented at the Tsukuba
 University International Seminar,
 Tsukuba University School of Medicine and Medical Sciences, Tsukuba, Japan.
- Thomas, P. L. (2017, June). Academicpractice partnerships: CNL impact and outcomes: Support development. Presented at the Global Nursing Initiative, Japanese Red Cross, Tokyo, Japan.
- Thomas, P. L. (2017, June). *Development of academic-practice partnerships*.

 Presented at the Global Nursing
 Initiative, Japanese Red Cross Colleges of Nursing, Tokyo, Japan.
- Thomas, P. L. (2017, June). *Lateral* integration and the CNL role. Presented at the Global Nursing Initiative, Japanese Red Cross University and Japanese Nurses Association, Tokyo, Japan.

- Thomas, P. L. (2017, June). *The CNL Role:*Partnering for patients and professional outcomes. Presented at the Global

 Nursing Initiative, Japanese Red Cross,
 Tokyo, Japan.
- Thomas, P. L. (2017, June). Evidence-based practice: Application at the bedside.

 Presented at the Global Nursing Initiative, Japanese Red

 Cross University and Japanese

 Nurses Association, Tokyo, Japan.
- Thomas, P. L. (2017, June). *Project management*. Presented at the Global
 Nursing Initiative, Japanese Red Cross
 Colleges of Nursing, Tokyo, Japan.
- Thomas, P. L. (2017, June). *Change theory.*Presented at the Global Nursing
 Initiative, Japanese Red Cross, Tokyo,
 Japan.
- Thomas, P. L. (2017, June). *CNL: The role, the work, and the assumptions.*Presented at the Global Nursing Initiative, Japanese Red Cross University and Japanese Nurses Association, Tokyo, Japan.
- Thomas, P. L. (2017, February). *CNL* educator Vanguard Award recipient presentation. Presented at the Clinical Nurse Leader Summit, American Association of Colleges of Nursing, Atlanta, GA.
- Thomas, P. L. (2017, February).

 Domestic and international practice and academic partnerships: Mentorship and collaboration of international clinical nurse leader faculty, Students, and Health System Leaders. Presented at the Clinical Nurse Leader Summit, American Association of Colleges of Nursing, Atlanta, GA.
- Thomas, P. L. (2017, February). Embedding CNLs in healthcare systems through the lens of implementation science. Presented at the Clinical Nurse Leader Summit, American Association of Colleges of Nursing, Atlanta, GA.

- Usoro, J., Kenyon, L. K., Farris, J., & Rhodes, S. S. (2017, April). *Changes in EEG spectrum and mutual information during power mobility training.* Presented at the IEEE Great Lakes Biomedical Conference, Institute of Electrical and Electronics Engineers (IEEE), Milwaukee, WI.
- Vandenbil, M. (2017, October). The whole story: Using peer group storytelling to facilitate health, wellbeing and personal growth among college students. Presented at the Michigan Premier Public Health Conference, Michigan Premier Public Health Society, Mackinac Island, MI.
- VanderKooi, M., Coviak, C. P., & Monson, K. (2017, April). Feasibility of using the Technology Acceptance Model as a theoretical framework for barcode medication administration scanning at a rural hospital. Presented at the Midwest Nursing Research Society Annual Conference, Midwest Nursing Research Society, Minneapolis, MN.
- Visser, A., Westman, M., Otieno, S., & Kenyon, L. K. (2017, February). A home-based body weight supported treadmill training program for children with cerebral palsy: A pilot study. Presented at the 2017 Combined Sections Meeting of the American Physical Therapy Association, American Physical Therapy Association, San Antonio, TX.
- Vogelzang, J. L. (2017, October).

 Creating a bridge to food security:

 Cooking with marginalized populations.

 Presented at Improving Health

 Through Systems Thinking, GCL

 Society of Public Health Educators

 (SOPHE), Grand Rapids, MI.
- Vogelzang, J. L. (2017, August). *Design* thinking real world problems. Presented at the Lilly National Teaching Conference, Lilly, Asheville, NC.

- Wampler, P. (2017, October). Potholes and pitfalls along the road to research and studying abroad in Haiti. Presented at the Geological Society of America Annual Meeting, Geological Society of America, Seattle, WA.
- Warren, V., DeLeo, V., Dondzilla, C., Campbelle, A., DesArmo, L., & Gyorkos, A. M. (2017, November). Exercise is medicine at GVSU Bringing awareness and engaging students across campus. Presented at the ACSM Annual Meeting, American College of Sports Medicine-Midwest Chapter (ACSM), Grand Rapids, MI.
- Wallace, H. (2017, September). Sitting in shadow: Enhancing inter-professional health care teams and patient provider relationships through Mindfulness meditation. Presented at the Midwest Interprofessional Practice, Education, and Research Center Annual Conference, Grand Valley State University, Grand Rapids, MI.
- Wallace, H. (2017, March). In the Spirit:

 A novel spiritual health educational
 curriculum for formal care giver.

 Presented at the American Society on
 Aging Annual Conference, American
 Society on Aging, Chicago, IL.
- Wallace, H. M. (2017, November).

 Exploring the role of Mindfulness
 meditation practice as means for
 enhancing geriatric education and
 practice. Presented at the 2017 APHA
 General Meeting: Human Spirituality,
 Contemplative Practices in Health and
 Well-being, American Public Health
 Association, Atlanta, GA.
- Washburn, J. E. (2017, October). *Human trafficking: Identification, assessment, response.* Presented at the Annual Nursing Summit, Michigan Center for Nursing, Thompsonville, MI.
- Washburn, J. E. (2017, September). In plain sight: What health care providers need to know about human trafficking. Presented at the 4th Annual Trauma Symposium, Henry Ford Allegiance Health, Jackson, MI.

- Washburn, J. E. (2017, September).

 Hidden in plain sight: When human trafficking victims are our patients too.

 Presented at the Continuing Education Offering for RNs, St. Joseph Mercy Health and Sigma Theta Tau Chapter at Eastern Michigan University, Ypsilanti, MI.
- Weinke, A., & Biddanda, Bopaiah, B. (2017, September). *Tracking* stratification and mixing, and its ecological consequences. Presented at the CIGLR Annual Partners Meeting, Cooperative Institute for Great Lakes Research, University of Michigan, Ann Arbor, MI.
- Weiland, M., Armistead, B., & Khoo, S. K. (2017, November). Evaluation of leucine-rich repeat kinase 2 (LRRK2)-related microRNAs as biomarkers for Parkinson's disease. Presented at the West Michigan Regional Undergraduate Science Conference, jointly hosted by Van Andel Institute, Grand Valley State University, Aquinas College, Calvin College, and Hope College, Grand Rapids, MI.
- Wesley, E., Vanden Bosch, M. L., Strouse, S. M., & Kohler, M. (2017, April). *Just keep moving.* Presented at the 41st Annual Research Conference, Midwest Nursing Research Society (MRNS), Minneapolis, MN.
- Wessels, D., & Snyder, E. (2017, September). Evaluating the potential impacts of rainbow trout (Oncorhynchus mykiss) farming on aquatic macroinvertebrates and glassfrogs in neotropical cloud forest streams. Presented at the Michigan Space Science Grant Consortium, University of Michigan, Ann Arbor, MI.
- Wheatley, E. E. (2017, April). The corporate state and the subversion of human rights: Monsanto, DAPL, and the corruptions of managed democracy. Presented at the Midwest Sociological Society Annual Meeting, Midwest Sociological Society, Milwaukee, WI.

- Wyble, J. R. (2017, October). *Nature as therapy: A tool for TR*. Presented at the MTRA Fall Conference, Michigan Therapeutic Recreation Association, Ann Arbor, MI.
- Zivi, K. (2017, September). Claiming the right to human dignity: Menstruation, activism, and embodied vulnerability.

 Presented at the American Political Science Association Meeting, American Political Science Association, San Francisco, CA.
- Zivi, K. (2017, February). *Embodied dignity*. Presented at the Sabbatical Showcase, Brooks College. Long Beach, CA.



Grand Valley's Public Health Department Chair and Program Director Ranelle Brew, Ed.D., (center) accepts the Hometown Health Hero award and Special Tribute Award from Health and Human Services Director Nick Lyon (left) and Senator David Hildebrand (right).

Faculty Awards and Honors

Grand Valley's Occupational Safety and Health Management (OSHM) program was awarded Graduate Safety Practitioner® (GSP®) Qualified Academic Program (QAP) status by the Board of Certified Safety Professionals (BCSP). BCSP supports OSH graduates by providing them opportunities to apply for the GSP designation, a pathway to

the Certified Safety Professional® (CSP®) designation. The CSP, accredited by the American National Standards Institute (ANSI) under the ISO 17024 standard, has a reputation as the "gold standard" of safety certification. The GSP designation will demonstrate OSH graduates' level of preparation and commitment to the safety profession to established practitioners and potential employers. Additionally, being a GSP QAP program distinguishes Grand Valley's OSH program from other

programs because our students do not need to sit for the ASP certification exam prior to taking the CSP exam.

Mary Free Bed Rehabilitation Hospital and Grand Valley State University
Neurologic Residency received full accreditation by the American Physical Therapy Association as a post-professional residency program for physical therapists in Neurologic Clinical Practice.

SHaPe Camp is a 2018 Hometown Health Heroes award recipient, given by the Michigan Department of Health and Human Services. The purpose of this award is to recognize individuals and organizations that have made significant contributions to protect and improve their community's health. Hometown Health Hero awards are presented at the Capitol Rotunda annually in April as part of Michigan's official Public Health Week celebration. Camp co-director, Ranelle Brew, Ed.D, M.S., CHES., accepted the award, as well as a Special Tribute Award, from Senator David Hildenbrand and Michigan Department of Health and Human Services Director Nick Lyon.

Denise Ludwig, Ph.D., CCC-SLP, FNAP, associate professor of speech language at Grand Valley along with Nick Carlson of Goodwill Industries of Grand Rapids were appointed by Michigan Governor Rick Snyder to the Michigan Board of Speech-Language Pathology. This is an 11-member board that assists the Michigan Department of Licensing and Regulatory Affairs with regulating the licensure and practice of speech-language pathologists. Governor Snyder was quoted as saying: "Nick and Denise both have great experience and I am confident they will serve this board well." Members serve four-year terms.

Dan Halling, Ph.D., CCC-A, professor of communications sciences and disorders was recognized by the American Speech-Language-Hearing Association (ASHA) as a Fellow of the Association, one of the highest honors awarded by the association. The awards ceremony took place on November 10, 2017. Dan was one of 15 individuals recognized by ASHA, which represents over 185,000 speech/language/hearing professionals.

Meri Goehring, PT, Ph.D., was awarded the 2018 Presidents Award from the Academy of Geriatric Physical Therapy. Goehring served as editor for GeriNotes for two consecutive three-year terms. GeriNotes is a clinical magazine published by the organization six times a year. The Academy of Geriatric Physical Therapy is a special interest section of the American Physical Therapy Association. It fosters clinical excellence and the professional and career development of physical therapists and physical therapist assistants working with older adults by providing members with continuing education and assistance in the areas of practice, research, and advocacy.

Cathy Harro, PT, D.P.T., M.S., NCS, was inducted into the National Academy of Practice in Physical Therapy.



CONTACT INFORMATION: HEALTH AND HEALTH-RELATED PROGRAMS

College of Community and Public Service

Conege of Community and I done service			
Title	Contact person	Email	Phone
Dean of College of Community and Public Service	George Grant Jr.	grantg@gvsu.edu	(616) 331-6850
Administrative Assistant to the Dean	Sandra Jennings	jennings@gvsu.edu	(616) 331-6848
Associate Dean of College of Community and Public Service	Mark Hoffman	hoffmanm@gvsu.edu	(616) 331-6891
Associate Dean of College of Community and Public Service	Paul Stansbie	stansbp@gvsu.edu	(616) 331-7143
Executive Director of the Dorothy A. Johnson Center for Philanthropy	Kyle Caldwell	caldweky@gvsu.edu	(616) 331-9027
Director of Criminal Justice	Patrick Gerkin	gerkinp@gvsu.edu	(616) 331-7175
Director of School of Social Work	Scott Berlin	berlins@gvsu.edu	(616) 331-6556
Director of Undergraduate Advising Center	Breeann Gorham	gorhamb@gvsu.edu	(616) 331-6890
Chair of Hospitality and Tourism Management	Michael Sciarini	sciarinm@gvsu.edu	(616) 331-2104
Chair of School of Public, Nonprofit, and Health Administration	Richard Jelier	jelierr@gvsu.edu	(616) 331-6578
College of Health Professions			

Title	Contact person	Email	Phone
Dean of College of Health Professions	Roy Olsson	olssonr@gvsu.edu	(616) 331-3356
Administrative Assistant to the Dean	Lisa Mulvihill	mulvihil@gvsu.edu	(616) 331-5993
Director of Audiology	Dan Halling	halling@gvsu.edu	(616) 331-5604
Director of Clinical Dietetics	Jody Vogelzang	vogelzjo@gvsu.edu	(616) 331-5059
Director of Cardiovascular Sonography - Echocardiography	Katelyn Lowman	lowmanka@gvsu.edu	(616) 331-5952
Director of Diagnostic Medical Sonography	Tatyana Beaves	beavest@gvsu.edu	(616) 331-5649
Director of Cardiovascular Sonography - Vascular	Jennifer VanderPoel	vanderpj@gvsu.edu	(616) 331-5951
Director of Health Information Management	Julie Alles-Grice	allesju@gvsu.edu	(616) 331-5607
Director of Medical Dosimetry	Kristen Vu	vuk@gvsu.edu	(616) 331-5753
Director of Medical Laboratory Sciences	Jeanne Stoddard	stoddarj@gvsu.edu	(616) 331-3304
Director of Occupational Therapy - Hybrid	Jeanine Beasley	beasleyj@gvsu.edu	(616) 331-3117
Director of Physician Assistant Studies	Andrew Booth	bootha@gvsu.edu	(616) 331-5991
Director of Radiation Therapy	LeShell Palmer Jones	palmeles@gvsu.edu	(616) 331-5949
Director of Speech-Language Pathology	Courtney Karasinski	karasinc@gvsu.edu	(616) 331-5670
Director of Therapeutic Recreation	Dawn DeVries	devridaw@gvsu.edu	(616) 331-5553
Chair of Allied Health Sciences	Chad Sutliffe	sutlifch@gvsu.edu	(616) 331-5526
Chair of Communication and Science Disorders	Dan Halling	halling@gvsu.edu	(616) 331-5604
Chair of Diagnostic and Treatment Sciences	Randy Wyble	wybler@gvsu.edu	(616) 331-5642
Chair of Occupational Science and Therapy	Scott Truskowski	truskows@gvsu.edu	(616) 331-2734
Chair of Physical Therapy	Dan Vaughn	vaughnd@gvsu.edu	(616) 331-2678
Chair of Physician Assistant Studies	Paul Christiansen	christep@gvsu.edu	(616) 331-5701
Chair of Public Health Department and Program Director	Ranelle Brew	brewr@gvsu.edu	(616) 331-5947

College of Liberal Arts and Sciences

· ·			
Title	Contact person	Email	Phone
Dean of College of Liberal Arts and Sciences	Frederick Antczak	antczakf@gvsu.edu	(616) 331-2495
Administrative Assistant to the Dean	Cindy Laug	laugc@gvsu.edu	(616) 331-2495
Associate Dean for Curriculum, Pedagogy, and Academic Opportunity	Kevin Tutt	tuttk@gvsu.edu	(616) 331-2495
Associate Dean for Faculty Resources and Scheduling	Gretchen Galbraith	galbraig@gvsu.edu	(616) 331-3675
Assistant Dean for Advising and Student Services	Betty Schaner	schanerb@gvsu.edu	(616) 331-2495
Assistant Dean for Finance and Project Management	Michelle McCloud	mccloudm@gvsu.edu	(616) 331-2495
Assistant Dean for Research, Facilities Planning, and	George McBane	mcbaneg@gvsu.edu	(616) 331-2495
High Impact Practices			
Assistant Dean for Strategic Planning, Accreditation, Assessment, and	Donovan Anderson	andersdo@gvsu.edu	(616) 331-2495
Faculty and Staff Development			
Director of the Autism Center (START)	Amy Matthews	matthewa@gvsu.edu	(616) 331-3513
Director of CLAS Communications and Advancement	Monica Johnstone	johnstmo@gvsu.edu	(616) 331-2495
Director of School of Communications	Jonathan Hodge	hodgejo@gvsu.edu	(616) 331-3668
Chair of Biomedical Sciences	Dan Bergman	bergmand@gvsu.edu	(616) 331-3318
Chair of Cell and Molecular Biology	Mark Staves	stavesm@gvsu.edu	(616) 331-2315
Chair of Chemistry	Deborah Herrington	herringd@gvsu.edu	(616) 331-3317
Chair of Movement Science	Christina Beaudoin	beaudoic@gvsu.edu	(616) 331-3515
Chair of Psychology	Robert Hendersen	hendersr@gvsu.edu	(616) 331-2195

K	irkhof College of Nursing			
	tle	Contact person	Email	Phone
	ean of Kirkhof College of Nursing	Cynthia McCurren	mccurrec@gvsu.edu	(616) 331-5726
	lministrative Assistant to the Dean	Jill Smalldon	smalldoj@gvsu.edu	(616) 331-5726
	ssociate Dean for Graduate Programs	Katherine Moran	morakath@gvsu.edu	(616) 331-5458
	ssociate Dean for Research and Scholarship	Rebecca Davis	davirebe@gvsu.edu	(616) 331-5783
	ssociate Dean for Undergraduate Programs	Janet Winter	wintejan@gvsu.edu	(616) 331-5580
	sistant Dean for Practice	Tricia Thomas	thomatr@gvsu.edu	(616) 331-5754
	secutive Director of the Bonnie Wesorick Center for	Evelyn Clingerman	clingere@gvsu.edu	(616) 331-5611
L	Health Care Transformation	Lveryii Ciingerinan	chingere@gvsu.edu	(010) 551-5011
Di	rector of Communications and External Relations	Kelley Monterusso	monteruk@gvsu.edu	(616) 331-5882
	rector of the Office of Student Services	Kristin Norton	nortonkr@gvsu.edu	(616) 331-5637
	cademic Community Liaison – Clinical Placements	Susan Ouellette	ouellesu@gvsu.edu	(616) 331-5730
110	adding Community Europi Community Indeements	Susuii Suchette	ouenesu ogva.euu	(010) 331 3130
C	office of the Vice Provost for Health			
	tle	Contact person	Email	Phone
	ce Provost for Health	Jean Nagelkerk	nagelkej@gvsu.edu	(616) 331-2729
	lministrative Assistant to the Vice Provost for Health	Sara Walker	walkers1@gvsu.edu	(616) 331-2729
	nior Director for Health	Tina Barnikow	barnikot@gvsu.edu	(616) 331-5811
	rector of Simulation	Kathrine Branch	branchka@gvsu.edu	(616) 331-5911
Di	rector of the Interprofessional Education Office and Special Projects	Brenda Pawl	pawlb@gvsu.edu	(616) 331-5960
Di	rector of the GVSU Scribe Academy	Jeff Trytko	trytkoj@gvsu.edu	(616) 331-5943
Н	ealth Compliance Officer	Warren Olson	olsonwa@gvsu.edu	(616) 331-5867
Sp	pecial Projects Coordinator	Diane Dykstra	dykstrdi@gvsu.edu	(616) 331-5876
S	eidman College of Business			
	tle	Contact person	Email	Phone
	ean of Seidman College of Business	Diana Lawson	lawsond1@gvsu.edu	(616) 331-7385
	lministrative Assistant to the Dean	Dana Lewis	lewisd@gvsu.edu	(616) 331-7444
	ssociate Dean of Seidman College of Business	Paul Isely	iselyp@gvsu.edu	(616) 331-7418
	ssociate Dean of Seidman Conlege of Business	Joy Gianakura	giankuj@gvsu.edu	(616) 331-7394
	sistant Dean of Seidman College of Business	Karen Ruedinger	ruedingk@gvsu.edu	(616) 331-7433
	sistant Dean of Sciulian Conege of Business sistant Dean, Student Engagement; Graduate Program Operations	Koleeta Moore	moorekol@gvsu.edu	(616) 331-7386
	cademic Director of Graduate Programs	Mahendra Joshi	joshim@gvsu.edu	(616)331-7413
	rector of Executive Education Programs	Open	Joshini e gvsu.eau	(010)551 7 115
	rector of Executive Education Flograms rector of External Relations and Communications	Vonnie Herrera	herrerav@gvsu.edu	(616) 331-7383
	rector of the School of Accounting (Interim)	Aaron Lowen	lowena@gvsu.edu	(616) 331-7441
	sociate Director of the School of Accounting (Interim)	Cheryl Dunn	dunnc@gvsu.edu	(616) 331-7379
	nair of Economics (Interim)	Sonia Dalmia	dalmias@gvsu.edu	(616) 331-7423
	nair of Finance (Interim)	Aaron Lowen	lowena@gvsu.edu	(616) 331-Pend
Ci	ian of finance (interim)	raton Lowen	iowena@gvsu.edd	(010) 991 1 6114
S	eymour and Esther Padnos College of Engineering and	1 0		
Ti	tle	Contact person	Email	Phone
D	ean of Seymour and Esther Padnos	Paul Plotkowski	plotkowp@gvsu.edu	(616) 331-6260
	College of Engineering and Computing			
Ad	lministrative Assistant to the Dean	Patti Eisen	eisenp@gvsu.edu	(616) 331-6260
As	ssociate Dean Padnos College of Engineering and Computing	Tim Born	bornti@gvsu.edu	(616) 331-6260
As	ssistant Dean Padnos College of Engineering and Computing	Michelle Lindale	lindalem@gvsu.edu	(616) 331-6260
	secutive Director applied Medical Device Institute (aMDI)	Brent Nowak	nowakbr@gvsu.edu	(616) 331-6843
Di	rector of School of Computing and Information Systems	Paul Leidig	leidig@gvsu.edu	(616) 331-2060
D	and the office of the office of the original o	Wash Malalatan	ma alalatamar@ 1	(616) 221 6750

77 gvsu.edu

Wael Mokhtar

Samhita Rhodes

Robert Adams

Guenter Tusch

Anirudh Chowdhary

Dave Huizen

Director of School of Engineering

Chair of Biomedical Engineering Master's Program

Chair of Occupational Safety and Health Department

Coordinator of Professional Science Master's Program

Chair of Computing and Information Systems Master's Program

Chair of Health Informatics and Bioinformatics Master's Program

(616) 331-6750

(616) 331-6267

(616) 331-3885

(616) 331-2046

(616) 331-6300

(616) 331-8643

mokhtarw@gvsu.edu

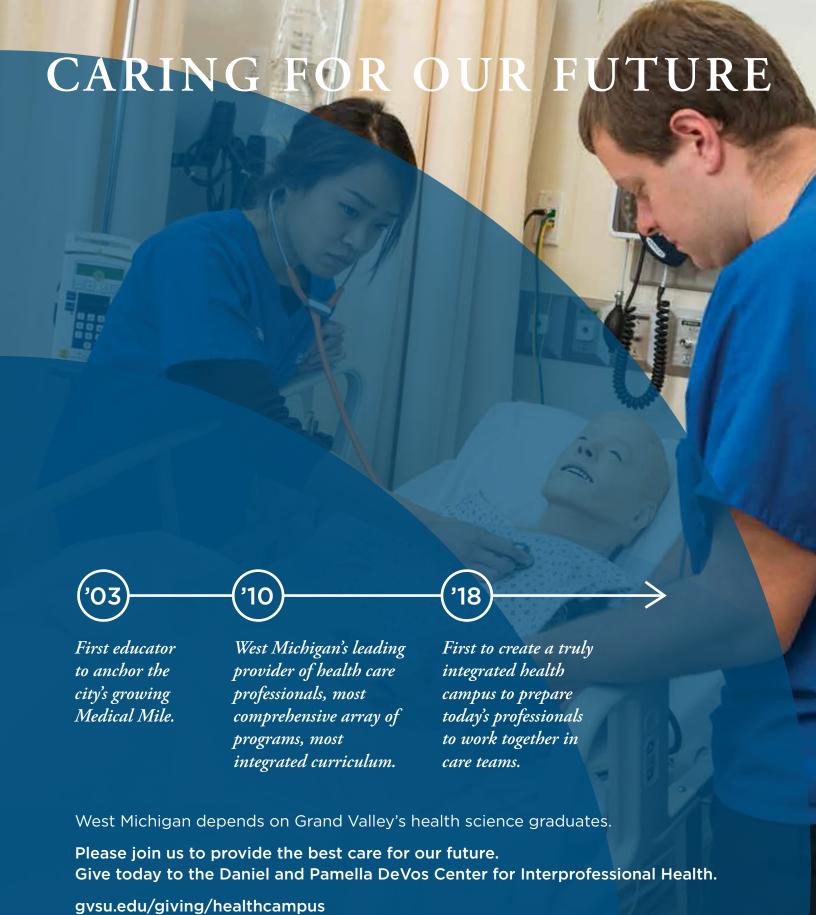
rhodesam@gvsu.edu

adamsr@gvsu.edu

tuschg@gvsu.edu

huisend@gvsu.edu

chowdhan@gvsu.edu



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