# Ditt nurse

UNIVERSITY OF PITTSBURGH SCHOOL OF NURSING MAGAZINE Winter 2023-24

### Driving POSITIVE CHANGE in Patient Care and Health Systems

A look at the vital role of research and education

esearch is powerful, and the role it plays in the field of nursing is incredibly significant.

Research goes beyond just acquiring knowledge; it is the cornerstone of advancing patient care, shaping health care policies, and transforming the nursing profession. research findings, nurses are providing the best possible care to their patients while also inspiring their peers and future generations of nurses—like our students.

Pitt Nursing is proud of the research efforts of its faculty and students and of its designation as a Nursing Research Intensive Environment by the



<sup>44</sup> Nursing research isn't just a pursuit of knowledge but a catalyst for positive change in patient care, health care systems, and the nursing profession itself.<sup>77</sup>

The research our students and faculty are conducting at the University of Pittsburgh School of Nursing allows us to deepen our understanding of diseases, conditions, and best practices in nursing care. Our researchers have uncovered valuable insights that lead to evidence-based approaches to patient care that not only enhance the quality of care but also improve patient outcomes, making a vital impact on the lives of individuals and communities.

Moreover, research plays a pivotal role in addressing the ever-evolving challenges of health care. It helps to identify emerging health issues, explores innovative strategies for prevention and treatment, and contributes to the development of health care policies that prioritize patient well-being. In this issue of Pitt Nurse magazine, you'll learn how researchers at Pitt Nursing are revolutionizing cardiac care through the power of Artificial Intelligence. Their groundbreaking work is enhancing the speed and accuracy of diagnosing and classifying heart attacks by developing a cutting-edge machine-learning model that aims to determine the optimal utilization of algorithms to benefit patients.

This research has the potential to save lives.

Additionally, research fosters professional growth and elevates the nursing professional as a whole. It allows nurses to expand their knowledge, develop specialized expertise, and contribute to the body of nursing knowledge. By continuously learning and staying updated on the latest National Institute of Nursing Research of the National Institutes of Health. For decades, Pitt Nursing has provided its faculty and students with the resources and support they need to generate new health care knowledge related to direct clinical practice and public health policy. Research is our focus.

This issue of Pitt Nurse

highlights the incredible research happening at the School of Nursing. As part of a top-ranked research university, the school is home to eight research hubs, including our newest, which is focused on education. We'll explore the projects that these collaborative, interdisciplinary hubs are undertaking and their plans for the future. We also look at a new role created at Pitt Nursing, and the leader at the reigns: how Yvette Conley, PhD, FAAN, the new associate dean for research and scholarship, and the plans to stimulate new research endeavors while supporting current research in the school. And, finally, Pitt Nursing is home to some of the brightest student researchers in the country, whose work is being recognized globally. We examine their research, which is shaping the future of health care.

Nursing research isn't just a pursuit of knowledge but a catalyst for positive change in patient care, health care systems, and the nursing profession itself. I'm proud to lead such a research-intensive environment and am excited to see what lies ahead. I encourage you to embrace the value of research, support these ongoing endeavors, and perhaps consider how you can contribute to this noble pursuit.

Christine E. Kasper, PhD, FAAN, FACSM Dean and Professor University of Pittsburgh School of Nursing

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# Pitt nurse A publication of the University of Pittsburgh School of Nursing



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#### **STUDENTS EQUIPPED WITH THEIR RESEARCH CAN SHAPE THE FUTURE OF PATIENT CARE**

Empowering aspiring nurses with the tools, skills, and knowledge to engage in cutting-edge research is essential in today's rapidly evolving health care landscape.

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#### **HUBS GIVE STUDENTS AN EXCLUSIVE EXPERIENCE IN ADVANCING NURSING SCIENCE** AND PRACTICE

Most of the research happening at the University of Pittsburgh School of Nursing comes from its eight Nursing Research and Scholarship Hubs, fostering collaborative, interdisciplinary research programs that feature multiple faculty members and students with similar research interests.

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#### SHAPING RESEARCH **ADVANCEMENT AT PITT NURSING: YVETTE CONLEY NAMED** ASSOCIATE DEAN OF RESEARCH AND SCHOLARSHIP

The research at Pitt Nursing holds the key to unlocking innovative solutions, advancing patient care, and shaping the future of nursing practice. Yvette Conley, PhD, is ready to address some of the complex challenges that lie ahead while guiding the school toward a future of transformative health care in her new role.

### 34 **NEW AI TOOL BEATS STANDARD APPROACHES FOR DETECTING HEART ATTACKS**

A new machine learning model uses electrocardiogram (ECG) readings to diagnose and classify heart attacks faster and more accurately than current approaches.

### New Endowed Chair in Health and Community Systems Established Through Generous Gift

Holy Goodling Bell, CRNP, a distinguished 1974 graduate of the University of Pittsburgh School of Nursing, and her husband Gordon M. Bell, DDS, an accomplished cosmetic dentist, have taken a powerful step towards enhancing education, innovation, and excellence in health care through a commitment that will establish the Holly Goodling Bell, CRNP and Gordon M. Bell, DDS Endowed Chair in Health, and Community Systems at the School of Nursing.

The endowed chair results from a \$2 million planned gift from the Bells, to be fulfilled through their estate. This endowment is designed specifically for the Doctor of Nursing Practice (DNP) program and is set to become a pivotal asset in recruiting and retaining outstanding faculty members, driving innovation and progress within the field, and enriching the educational experience for nursing students.

Holly Goodling Bell, CRNP, brings with her a wealth of experience,

having recently retired from a fulfilling career at McCormick & Co., where she played a pivotal role in their occupational health program. Her 1997 appointment as the occupational health manager began a journey devoted to providing emergency and urgent care to employees. She handled various responsibilities, including addressing injuries and illnesses, workers' compensation reporting, health education, vaccine clinics, hearing screenings, and referrals.

Gordon M. Bell, DDS, is a proud alumnus of the University of Maryland, having graduated in 1985 and 1989. He has established himself as a prominent cosmetic dentist at the Center for Dental Excellence.

"Endowed faculty chairs play a vital role in furnishing the essential resources recognition needed to attract and retain exceptional scholars and educators," said Pitt Nursing Dean Christine E. Kasper, PhD, RN, FAAN, FASCM. "The creation of the Holly Goodling



Bell, CRNP and Gordon M. Bell, DDS Endowed Chair is poised to become an esteemed and sought-after position, attracting faculty who are trailblazers in their respective fields. These distinguished educators will bring their wealth of knowledge, experience, and research to the Health and Community Systems Department and will be inspiring to many. The Holly Goodling Bell, CRNP and Gordon M. Bell, DDS Endowed Chair in Health and Community Systems stands as a testament to their commitment to advancing health care and nursing education."

### Pitt Nursing Rises in BSN Rankings

The University of Pittsburgh School of Nursing has again been recognized for excellence in its academic programs. U.S. News & World Report ranked the BSN program 10th in the nation, up five spots from the previous year, in its Best Bachelor of Science in Nursing Programs rankings released Sept. 18, 2023.

"This achievement is a testament to our faculty, staff, and students' dedication, hard work, and unwavering commitment and reflects our relentless pursuit of excellence in nursing education," says Christine E. Kasper, PhD, FAAN, FACSM, dean and professor. "This accomplishment signifies our continued journey toward providing top-tier nursing education and producing graduates who are exceptionally well prepared to significantly impact health care on a global scale. It is a testament to the school's commitment to scientific rigor, innovation, and providing care based on science and evidence and is propelling us to the forefront of nursing education."

### Two Million Dollar Grant to Provide Scholarships to Attract Nursing Students

The University of Pittsburgh School of Nursing has been awarded a \$2 million gift to create the Joanne and William Conway Nursing Scholarship Program. The gift will be used over four years to recruit and support Accelerated 2nd Degree Bachelor of Science in Nursing (ABSN) students. Joanne and William E. Conway Jr. recommended the gift through their donor-advised fund, the Bedford Falls Foundation-DAF.

"This prestigious scholarship program will provide important financial support to students who already hold a degree and are forging a new pathway by embarking on a nursing career," said Christine E. Kasper, PhD, RN, School of Nursing dean and professor. "We are deeply grateful for the Conways' generous support through the Bedford Falls Foundation-DAF."

Philanthropists Joanne Conway and William E. Conway Jr., co-founder and co-chairman of The Carlyle Group, have given millions to support nursing education and scholarships to address the nation's nursing workforce shortage.

"The demand for nurses continues to grow, and not everyone who comes into the profession does so in the 'traditional' manner," said Anantha Shekhar, MD, PhD, senior vice chancellor for the health sciences and John and Gertrude Petersen Dean of the School of Medicine at Pitt. "It is important that we lower the barriers to education for those who are called to nursing as a second career, and we thank the Conways for their support in making a degree possible for scores of students."

The Joanne and William Conway Nursing Scholarship Program will award, on average, \$8,000 per ABSN student per year through the 2026-2027 academic year ultimately funding 60 students per academic year at the University of Pittsburgh School of Nursing who will be known as "Conway Scholars."

"Nurses are essential to the health of our country," said Bill Conway. "By reducing the financial burden for nursing students at the University of Pittsburgh School of Nursing, we can support the school in addressing the nation's critical nursing shortage. We know many of these students dream of receiving a highquality nursing education at the University of Pittsburgh School of Nursing, and they shouldn't face a burden of debt."

"This gift will allow the school to offer much-needed financial support to students taking on the challenge of a second degree to pursue a career in nursing," said Julius Kitutu, PhD, MSC, School of Nursing associate dean for student affairs and alumni relations and chief diversity officer. "The Conways' generosity will have an enormous impact in relieving students' financial burden while helping them achieve their dreams of becoming a nurse."



### Faculty and Student Honored at International Sigma Congress

The University of Pittsburgh School of Nursing was well represented at the Sigma Theta Tau International Honor Society of Nursing's 34th International Nursing Research Congress in Abu Dhabi, United Arab Emirates, in July 2023.

Professor Emeritus Lora Burke and Denise Charron-Prochownik, professor and chair of the Department of Health Promotion and Development, were both inducted into the International Nurse Researcher Hall of Fame during the event. The hall of fame celebrates Sigma members who have attained noteworthy and enduring national and/or international acclaim for their contributions and whose research has profoundly influenced the profession and the community it serves.

PhD student Alice Curtis Cline presented her poster, "Comparison of Cardiovascular Risk between Those With Several Mental Illness and Those Without: NHaNES 2017-2018."

Heeyoung Lee, associate professor and chair of the Department of Health and Community Systems, presented "Cardiovascular Risks among People Who Have Been on Psychotropic Medications."

Pitt Nursing Dean Christine E. Kasper also traveled to Abu Dhabi to support the honorees and presenters.

### The Quest for Clarity: Unraveling Alzheimer's Patient Reactions

The National Institute on Aging of the National Institutes of Health (NIH) has awarded researchers at the University of Pittsburgh and the University of California, Irvine, a multimilliondollar grant to better understand patient reactions to Alzheimer's disease diagnoses.

The PARADE research study is being led by Jennifer Lingler, professor and vice chair for research in the Department of Health and Community Systems at Pitt's School of Nursing, and Joshua Grill of UC Irvine. The grant is expected to total \$3.5 million over up to five years.

The new collaboration cooperates with the New IDEAS Study (funded by the American College of Radiology) and the Alzheimer's Association's TrialMatch program. The study will enable researchers to understand better the experiences and potential psychological impacts of receiving Alzheimer's disease biomarker results. The results will give patients and their families the vital information they need to monitor and support a diagnosis.

"The use of Alzheimer's disease biomarkers in clinical practice provides important information for patients and families about the causes of cognitive symptoms and, since 2021, can be used to indicate appropriate treatments," according to a release on the study. "Yet, clinicians and researchers alike lack critical information about using these powerful diagnostic tools. Specifically, the psychological and social impact of delivering Alzheimer's biomarkers to patients and their families remains less than thoroughly described. While some patients may expect and even be relieved by diagnostic information, others may experience sustained distress that warrants intervention."

Researchers have found that the available data on these experiences do not come from a diverse population but rather from people who lacked a history of depression and anxiety, were highly educated, were seen at academic research hospitals and were predominantly non-Hispanic white.

PARADE will enroll 500 patients with memory impairment and will work closely with the New IDEAS Study, a landmark study of Alzheimer's disease biomarker uses in clinical practice.

"We are very excited that Drs. Lingler and Grill have received funding from NIH to complete this work," says Gil Rabinovici, principal investigator of the New IDEAS Study. "We are confident it will add an important focus on the patient and family experience and tremendous value to the New IDEAS Study."



School of Nursing adult-gerontology acute care and pediatric acute care nurse practitioner students got hands-on learning experience during an intense lab day. Students rotated through multiple stations in the skills lab, practicing placing breathing tubes, doing bed transfers, and more.

### Pitt Nursing Donates Medical Equipment to Kenya

The University of Pittsburgh School of Nursing is giving back in a big way—helping nursing students on the other side of the world improve their learning experience in the labs and classrooms.

St. Paul's University College of Health Sciences in Kenya, East Africa, has steadily seen its student population rise over the last three years. But with that increase comes a dire need to expand and equip their teaching and learning facilities, such as their medical laboratories.

"Procurement of medical equipment and resources has proved [to be] very expensive for the school, which is only four years old," said Susan Wanja, dean for St. Paul's University College of Health Sciences, lecturer, and head of the nursing department.

Julius Kitutu, associate dean for diversity, equity, inclusion, and community engagement, has organized book donation drives for Kenya for years. This time, he wanted to do something bigger.

A team from the University of Pittsburgh, composed of Vice Chancellor for Global Affairs and Director of the University Center for International Studies Ariel Armony, Interim Director



of the Center for African Studies Catherine Koverola, Associate Director of the Center for African Studies Macrina Lelei, and Kitutu visited St. Paul's University. "When we asked the students what they needed, they said they had nothing to practice their skill set with," said Kitutu.

Kitutu reached out to faculty members at the School of Nursing to see what, if anything, could be donated to St. Paul's University, and the faculty responded. Eleven microscopes, slides, bulbs, cover slips and lens paper; 25 blood pressure cuffs; 25 stethoscopes and five teaching stethoscopes. In addition, two microscopes also were donated to Kitunduni High School in Matinyani District, Kitui County.

"We've had this equipment for years, and it was just sitting there taking up space," said Pitt Nursing assistant professor and director of the Science Education Labs, Jake Dechant, PhD. "When I was told students could use them, I said absolutely. This equipment now helps to train hundreds if not thousands of students."

"We've had this equipment accumulating over the years," said Karen Sellitto, who runs the skills and simulation laboratory at Pitt Nursing. "My stuff is the very basic: what everyone has to use to save a life. And that's what we're here for, saving lives."

"The donated medical equipment has improved access to skillstraining infrastructure and improved the skills gap that existed due to inadequate training resources, and which can negatively impact patient care," said Wanja. "The equipment also has improved the learning experience for the students in the laboratories and has improved their skills performance in the clinical area."

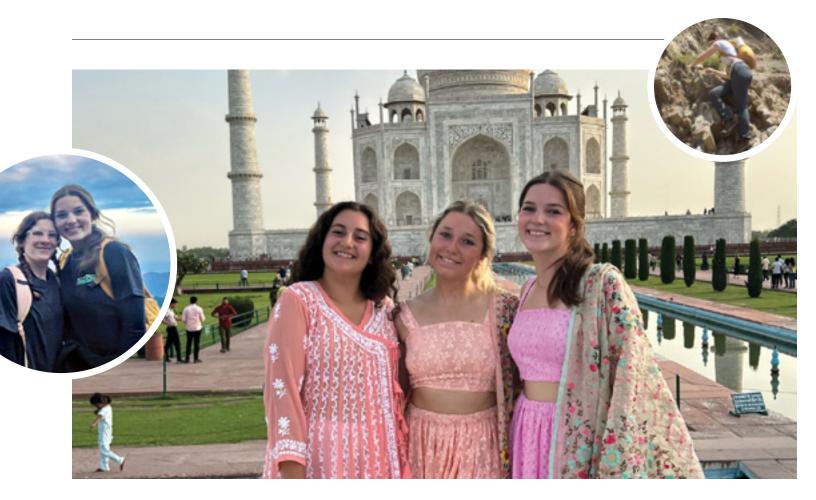


### **Students Select New Uniform**

he University of Pittsburgh School of Nursing student uniform has a fresh look.

Students are no longer wearing collared white zip-up shirts when they start their clinical rotations. Instead, students voted for a new uniform in Pitt's signature blue color with the institutional mark sewn onto the sleeve. "The University of Pittsburgh School of Nursing" appears in gold on the front of the uniform shirt.

Thank you to BSN student Kate Rosenfeld for modeling the new uniform!



### Global Experiences: Pitt Nursing Students Learn about Health Care Around the World

From the Taj Mahal to the peaks of the Himalayans to the bustling streets of Dublin, Ireland, Pitt Nursing students are traveling the world and experiencing firsthand how other countries deliver health care.

### **Shaping Policy and Practice**

The American Association of Colleges of Nursing wrote in "The Essentials of Baccalaureate Education for Professional Nursing Practice" that "the environments in which professional nurses practice have become more diverse and more global in nature," and by studying abroad, students can be prepared to meet future challenges of practice.

"The lessons learned on a global experience will go on to influence the way that students shape policy and practice in their future careers," says Lynnea Lombardi, program manager for nursing-related global experiences and study abroad programs. "By touring real hospitals and talking with local health care providers in a different country, students get to immerse themselves in a different health care system."

Lombardi traveled with a group of students to Argentina as part of the Pitt Plus3 Argentina: Healthcare Management program, led by Pitt Nursing Professor Grant Martsolf. Students spent two weeks gaining firsthand knowledge of the impacts of globalization on health care in a middle-income country.

"They get to compare the pros and cons of the Argentine health care system, for example, with the system in the United States," says Lombardi. "For many of our students, this was their first time leaving the country. It is my joy to support the students' learning experiences—not just about health care but also the bigger picture of cultural humility and being a global citizen. You could see the students' confidence grow as the program went on." The Pitt Global Experiences Office offers a wide variety of programs that allow students to take their studies abroad. Not only do the programs offer students a wide range of benefits, like cultural immersion, global perspective, academic enrichment, language acquisition, personal development, and networking opportunities, but studying abroad also has been described as an unforgettable and inspirational experience.

### **An Impactful Experience**

BSN student Alison Lambright spent five and a half weeks in northern India in the summer of 2023 as part of the nine-credit Himalayan Health and Wilderness First Responder program. The program focuses on the challenges of emergency medicine, public health, and medical care in the Himalayas, one of the most breathtaking mountain ranges on our planet.

"This program was incredible for my future plans as a nurse," says Lambright. "Through this experience, we became certified wilderness first responders, and we learned so much about how to respond to medical emergencies in the wilderness. We learned through scenarios, in the hospital, and in the classroom."

Lambright says that her experience will help her in her career as a nurse.

"I hope to work in the emergency room as well as work as a nurse abroad, [so the program] gave me incredible insight as to what nursing looks like outside the United States as well as how to respond effectively and efficiently in emergency situations," she says. "It was the most impactful experience, and I am so thankful for the memories I made."

### The Benefits of Participating in Study Abroad Programs

Assistant Professor Christopher Imes led a group of students on a two-week study abroad experience in Switzerland in May 2023. Healthcare Delivery in Switzerland gives students an opportunity to learn about the culture, health care delivery, and nursing education in the "jewel of Europe."

"The students have opportunities that they normally wouldn't have otherwise," says Imes. "For example, they get to visit various educational settings to learn about nursing education in Switzerland, visit several health care settings to learn how nursing practice differs from the United States, and visit culturally significant places like the United Nations and the World Health Organization."

"I learned a lot about the way Switzerland approaches health care, specifically mental health and psychiatric care," says BSN student Savana Cruz. "We visited the University Psychiatric Clinics in Basel, and they taught us about their holistic approach to treating mental health and improving quality of life. We had the opportunity to tour the campus and take a walk with the therapy goats. I think we as students could take a lot from what we learned there and apply it to our career as future nurses back in the United States. Overall, it was an experience I am very grateful for and will never forget."

Imes says that during their time in Switzerland, students learn the value of universal health care and how mental health services can drastically be improved in the United States. It also gives students a look at how nursing in the United States is really on the cutting edge when it comes to access to technology and incorporating the latest evidence-based practices into the care of patients.

"Another thing that the students learn from the study abroad trip is how respected nurses are in the United States compared to other countries," says Imes. "For example, advanced practice nursing has only been around in Switzerland for about 20 years. In that sense, their health care system lags behind ours, and nurses in the United States have significantly more opportunities for independent practice."

"There were lot of good moments in this program, but one of my favorites was when we went to the University of Austral and we got to work on some case studies with the local students there," said Maria Fabregas, BSN '26, Plus3 Argentina participant. "I thought it was really cool to share that same passion with the Nursing students there. We realized that have a lot in common with the Argentine students, and it was fun to talk to them. We plan on staying in touch."

### Inspiration

While these global experiences programs provide students with the necessary skills and experiences to thrive in an increasingly interconnected and diverse world, they also inspire students to experience more of that world.

"Participating in this program inspired me to continue learning abroad," says BSN student Maple Snow, who went on the trip to Switzerland with Imes. "You learn from other people who are taught a different philosophy of care. The visit to the Red Cross and the psych hospital were highlights."

"The Nursing at Trinity College Dublin program was a great experience," said Mary Ella McCarthy, BSN '25, Summer Nursing at Trinity College Dublin participant. "I learned of Irish health care and nursing education, including a clinical day at a hospital. It was great talking to the nurses, NPs, and doctors of their experiences in the workplace. As nurses, we have the opportunity to create positive change in our patients and health care system. The Nursing at Trinity College Dublin program has made me excited for what is to come in my career!"

"I found it bittersweet at the group dinner on the last night [when] students shared [that] they wished they had studied abroad sooner and more often during their college experience," says Lucinda Morgan, director for international affairs for Pitt Nursing, who traveled with students to Trinity College Dublin in Ireland in May 2023.

"One memorable moment in this program was visiting the Taj Mahal," said Lambright. "It was an unreal experience to see one of the seven wonders of the world. If you are thinking about journeying to the Himalayas, DO IT! It was the most impactful experience, and I am so thankful for the memories I made."

For more information on global experience opportunities at Pitt Nursing, contact Program Manager Lynnea Lombardi at lel164@pitt.edu.



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### **Decontamination Simulation Lets Students Learn How to Respond to a Disaster**

Adult-gerontology acute care nurse practitioner students, pediatric nurse practitioner students and fourth-year BSN students participated in a decontamination simulation as part of the University of Pittsburgh School of Nursing's Fundamentals of Disaster and Mass Casualty Care class.

Students had the opportunity to take on command staff roles and went from organizing and preparing for the event to responding to a mass casualty hazmat situation. Community mentors guided them through the steps, explaining how the positions and the different types of resources are used and accounted for during a real disaster response. Thanks to the following community mentors and students who participated in this important course:

#### **Community mentors:**

Chris Ruch, chief, Allegheny Mountain Rescue Group (AMRG)

Steve Solaya, AMRG member and director of emergency response for Shell

Michael Beach, commander, PA1 DMAT, and retired Pitt Nursing faculty member

Heather Long, area emergency manager, U.S. Department of Veterans Affairs Office of Emergency Management Christopher Ebert, emergency management coordinator, VA Pittsburgh Healthcare System

**Emma Berthiaume**, AMRG member and Pitt undergraduate interested in emergency medicine

#### **Students:**

Adult-gerontology NP students: Katty Tseng, Conor Yates

Pediatric NP student: Thi Vu

BSN students: Daniel Duenas (BSN '23), Linda Lietzel (BSN '23), Ashley Wertz (BSN '23), Kylie Wertz (BSN '23), William Zhang (BSN '23)



### Pitt Nursing Welcomes Chulalongkorn University Representatives

The University of Pittsburgh School of Nursing was thrilled to welcome delegation of three scholars from the Faculty of Nursing at Chulalongkorn University in Bangkok, Thailand, in July.

Dean Ratsiri Thato (PhD '02), Associate Dean for Research and International Affairs Penpaktr Uthis, and Associate Dean for Academic Affairs Wasinee Wisesrith toured the school and spoke with various Pitt Nursing faculty and administration members during their visit. The group also had the opportunity to visit the Winter Institute for Simulation, Education, and Research, where Thato demonstrated her intubation skills on the simulation equipment. Thato also reunited with Julius Kitutu, associate dean for diversity, equity, inclusion, and community engagement at Pitt Nursing. Kitutu worked in the School of Nursing as a research associate in the Center for Research and Chronic Disorders, now known as the Center for Research and Education, when Thato was a PhD student.

Alumna Ratsiri Thato (seated) reunites with Julius Kitutu, associate dean for diversity, equity, inclusion, and community engagement at Pitt Nursing.



### Faculty and Alumni Achieve Fellowship in the American Academy of Nursing

niversity of Pittsburgh School of Nursing faculty members Marci Nilsen, PhD, and Karin Warner, DNP, and former faculty member John Gallagher, DNP, FCCM, along with our esteemed alumni and post-doctoral fellows Kelley Baumgartel, PhD '15, Helene Burns, DNP '18, Christina Calamaro, MSN '88, Stephanie Gilberston-White, post-doctoral fellow, Yu-Yun Hsu, PhD '04, Mitchell Knisely, post-doctoral fellow and Kelly Wiltse Nicely, MSN '05, have been named fellows of the American Academy of Nursing. They were selected for fellowship based on their substantial, sustained, and outstanding impact on health and health care.

"This noteworthy accomplishment not only showcases their exemplary expertise and impact on health and health care but also reflects the commitment of Pitt Nursing to fostering excellence in research and scholarship," says Christine E. Kasper, PhD, FAAN, FACSM, dean and professor. "Their selection into the academy brings immense pride to Pitt Nursing and serves as an inspiration to our students, faculty, and broader academic community to continue to strive for excellence."

The American Academy of Nursing has approximately 2,900 fellows who are influential nursing leaders in education, management, practice, and research. Fellowship in the Academy not only is a recognition of professional accomplishments but also carries a commitment to actively contributing time and efforts toward advancing the Academy's mission and collaborating with other health leaders to transform the health care system across the country.



Marci Nilsen, PhD



Karin Warner, DNP

### Celebrating Students

### Congratulations, December 2023 Graduates!

The University of Pittsburgh School of Nursing welcomed its newest cohort of alumni during its winter commencement ceremony, held at Soldiers & Sailors Memorial Hall & Museum on December 15, 2023. These graduates joined more than 13,000 other Pitt Nursing alumni who are changing the face of nursing and health care worldwide.





















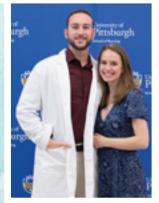
### **Celebrating Students**

### **Receiving the White Coat**

hile we wish our Pitt Nursing alumni the best of luck, we celebrated our students' making their formal introduction into clinical practice during our White Coat Ceremony on Aug. 25, 2023. Second-year BSN, accelerated second-degree BSN, and graduate students were celebrated and recognized as they took the next steps in their nursing careers. The White Coat Ceremony is held at nursing schools across the country.













### Faculty, Dean Emeritus Receive Prestigious Sigma Awards

Three University of Pittsburgh School of Nursing faculty members and its former dean were honored with prestigious awards for nursing excellence during Sigma Theta Tau International Honor Society of Nursing's 47th Biennial Convention, held in San Antonio, Texas, Nov. 11-15, 2023.

John O'Donnell, DrPH, FAAN, professor and chair of the Department of Nurse Anesthesia, received the esteemed Lucie S. Kelly Mentor Award, which recognizes the influence that role models and mentors in the nursing profession have on the lives and careers of others. This distinguished recognition highlights O'Donnell's outstanding mentorship at the School of Nursing. A powerhouse in the field of nurse anesthesia and simulation. O'Donnell has a national and international reputation for excellence, making him a sought-after mentor and collaborator. In 1994, he accepted a faculty position teaching within the nurse anesthesia program at the School of Nursing. Just one year later, he assumed the role of its associate director, and since then, more than 1,000 nurse anesthetists have graduated from Pitt Nursing, accounting for approximately 2% of the nation's workforce.

Richard Henker, PhD, FAAN, FAANA, professor, received the Excellence in Service, Dorothy Garrigus Adams Award. This award recognizes extraordinary excellence in service, celebrating voluntary service projects that address global health disparities, health care, the nursing profession, and Sigma. This prestigious accolade acknowledges Henker's exceptional contributions to and positive impact on addressing a global health disparity of a targeted population, specifically in Laos and Cambodia. Henker has active projects that are guiding policy changes with the ministries of health





in both countries, through which he is working to improve health care.

RICHARD HENKER, PHD,

FAAN. FAANA

Young Ji Lee, PhD, associate professor and vice chair of administration in the Department of Health and Community Systems, received the prestigious Virginia K. Saba Nursing Informatics Leadership Award. This award honors an individual for their innovative and cutting-edge work in nursing informatics, which must result in significant development of and sustained contributions to advancing nursing informatics and must achieve a recognizable and momentous public benefit. As a member of the Advisory Committee of the American Nurses Association (ANA) Connected Health/Telehealth Professional Issues Panel, Lee used her expertise to contribute to the revision of the ANA Core Principals on Connected Health in 2018. The guide is used by health care professionals who use connected health technologies. The results made health care more effective and efficient by electronically connecting clinicians to clinicians, patients to clinicians, and even patients to other patients and is considered a breakthrough in the field of informatics.

Jacqueline Dunbar-Jacob, PhD, FAAN, Dean Emeritus and Distinguished Service Professor of Nursing, was awarded the prestigious Excellence in Leadership, Mary Tolle Wright Award. This award recognizes extraordinary excellence in leadership that impacts nursing through visionary and innovative approaches and develops nursing leaders and



Young Ji Lee, PhD

Jacqueline Dunbar-Jacob, PhD. FAAN

leadership. Dunbar-Jacob served as dean of Pitt Nursing for more than 20 years. Under her leadership, Pitt Nursing was one of the first schools in the nation to offer the Doctor of Nursing Practice degree. Throughout her career, Dunbar-Jacob has been a sought-after presenter, mentor, advocate, researcher, and educator. Thanks to her leadership and visionary approach to nursing, Nazarbayev University in Kazakhstan selected Pitt Nursing to establish the undergraduate nursing curriculum for its newly established medical school. Dunbar-Jacob is a fellow of five prestigious health care organizations and has been honored with many awards, including the Friends of the National Institute of Nursing **Research Pathfinder Distinguished** Service Award and selection into the inaugural class of Sigma's International Nurse Researcher Hall of Fame.

"Our winners have exemplified the spirit of excellence; innovation; and dedication to mentorship, service, research, and leadership that we strive to cultivate at Pitt Nursing," says Christine E. Kasper, PhD, FAAN, FACSM, dean and professor. "Their accomplishments not only elevate Pitt Nursing's reputation but also inspire and motivate us all to reach new heights in our own pursuits. We are immensely proud of their accomplishments."

### Alum Wins Prestigious Dissertation Award

Distinguished Dissertations. McCall was recognized during the CGS 63rd Annual Meeting in Washington, D.C., on Dec. 7, 2023.

These international awards recognize recent doctoral graduates who have made significant and original contributions in their fields. Only two awards are given each year, rotating among four general areas of scholarship.

"I was astounded," says McCall of learning she had received the award. "I am very humbled."

McCall's dissertation research addressed a significant problem in cancer care: poor adherence to prescribed oral cancer therapy. "Genotypic and Phenotypic Predictors of Cancer Therapy Adherence and Symptom Trajectories in Women with Breast Cancer" analyzed women's experiences with side effects from types of early stage breast cancer treatment that, when taken, are highly effective in eradicating cancer after five years. Only 48% of women adhere to the regimen in the first year due to the symptoms or side effects. McCall's work used data to analyze the relationships between the symptoms experienced over time to help identify interventions for women who may stop taking the medicine due to the burden of these symptoms. She established a bidirectional relationship between symptoms and adherence, a new finding in this research area.

"The University of Pittsburgh is thrilled that Dr. McCall was honored for her groundbreaking research on breast cancer treatment," says Amanda Godley, Pitt's vice provost for graduate studies, who nominated McCall for the award. "McCall's innovative research demonstrates a novel approach to understanding the roles of adherence and symptoms in aromatase inhibitor therapy. We are proud of [her] accomplishments and anticipate that her scholarship will continue to impact the field for years to come."

McCall spent several years at Pitt Nursing, first as a staff member, then as a staff member and part-time student, and finally as a full-time doctoral student.

"Through my work at Pitt, I knew nearly everyone," she says. "Our school is like a small town—faculty and staff are friendly, helpful, and kind."

She says that it was through those relationships that her research interest began.

"The most influential person was our dean emeritus, [Jacqueline] Dunbar-Jacob," she says. "She hired me as a nurse interventionist on her first Research Project Grant[before] she was dean], and I've worked for her on numerous projects through the years. My interest in medication adherence was a result of working with Jackie. [Catherine] Bender was my dissertation chair, and her work and expertise with symptoms experienced and adherence in women with breast cancer played a large role in my dissertation study. I've known Susan Sereika for as long as I've known Jackie, and her expertise in statistics was invaluable. [Margaret] Rosenzweig piqued my interest in health disparities in breast cancer when I worked with her wonderful team as a graduate student researcher. And Yvette Conley was particularly influential regarding



my training in genetics. When she offered me the Institutional Research Training Grant scholar position, I was able to quit my Pitt job and begin as a full-time doctoral student. That was an important step because I was eligible to apply for grants of my own at that point—with the support of my committee."

At Pitt, McCall was awarded a highly competitive Predoctoral to Postdoctoral Fellow Transition Award (F99/K00) from the National Cancer Institute for her study, A Multi-omics Approach to Examine Symptoms and Medication Adherence in Women with Breast Cancer. Only 24 such awards are made annually. The K99 portion of this award now supports her postdoctoral training at Case Western Reserve University (CWRU) Frances Payne Bolton School of Nursing.

"In my postdoctoral fellowship, we are replicating the dissertation results in women with breast cancer who have experienced symptoms that differ from the ones we studied in the doctoral research, and we are examining the role of additional biomarkers and their influence on symptoms women experience," she says. "After that, I will focus on specific populations of persons with breast cancer. I am also involved with a phenomenal group of scientists at CWRU who are exploring potential health effects after a toxic exposure that recently occurred near my home in northeastern Ohio."

The CGS/ProQuest Distinguished Dissertation Awards have been

distributed annually since 1981. CGS President Suzanne T. Ortega says that the work that is honored represents the best of graduate education and research.

"The CGS/ProQuest Distinguished Dissertation Awards recognize the innovative research of young scholars and their important impact on their disciplines and the broader graduate education community," says Ortega. "Their tenacity and dedication to their scholarship is apparent in the significant contributions [that the 2023 recipients] have made in their fields."

Chris Burghardt, senior vice president of academia and government information systems at Clarivate, says, "Dissertations are not only a critical milestone of accomplishment in the academy but an importantand often underutilized-source of expertise, methodological innovation, and intellectual insight. The new integration between the Web of Science and ProQuest Dissertations & Theses Global ensures that these valuable contributions are made accessible to researchers at institutions of higher education across the globe."

ProQuest, part of Clarivate—whose ProQuest Dissertations & Theses Global database features the world's most comprehensive, curated collection of dissertations and theses—sponsors the awards, and an independent committee from CGS selects the winners. The winners receive a certificate of recognition, a \$2,000 honorarium, and a travel stipend to attend the awards ceremony.

This is the second time that a University of Pittsburgh graduate has been recognized. ■



### Professor Receives Prestigious University Honor

The University of Pittsburgh recognized School of Nursing Associate Professor Jill Demirci (BSN '05, MSN '10, PhD '12) with a 2023 Provost's Award for Diversity in the Curriculum. The award recognizes faculty efforts to integrate equity, diversity, and inclusion concepts into their courses and curricula.

"It was really special to get an award like this, as this education is something we built with community members over time," says Demirci. "It's also evolved to have student peers come back and share their clinical experiences. This open forum for sharing stories and experiences from different groups, on top of the clinical application and simulation, is a combination that has positively impacted student learning before they get into the clinical environment and establishing empathetic connection to patients once they are there."

Demirci developed a curriculum on front-loading lactation with an equity focus to offer undergraduate nursing students a practical and low-pressure learning setting. The course introduces fundamental lactation knowledge, fostering critical thinking and enhancing nursing management skills. Demirci says that the goal is to heighten students' awareness, comfort, and familiarity regarding lactation support for diverse patient groups.

"The implementation of the breast/chest feeding and lactation education module has been a crucial element in my undergraduate education. Not only did it make me more confident in my skills, but it taught me the importance of using inclusive language and of using diverse models during education," says Paula Hayden-Vazquez, a senior nursing student. "I even had local nurses from [UPMC] Magee-Womens Hospital come up to me and compliment the education we received and tell me how impressed they are with the University of Pittsburgh nursing students' education."

"This education wouldn't be possible without our wonderful parents from the Pittsburgh Black Breastfeeding Circle as well as our own PhD and undergraduate students who co-instruct with me: Lauren Narbey, Alice Cline, and Paula Hayden-Vazquez," Demirci says.

Demirci was recognized during the University's annual diversity awards ceremony on Jan. 23, 2024.

### Grant-funded Project Aims to Enhance Health Care Experiences for Those with Developmental Disabilities



new grant awarded to a University of Pittsburgh School of Nursing faculty member will help improve the experiences of individuals with developmental disabilities by hiring navigators who also have developmental disabilities to guide them through the often complex health care system.

"The end goal is to have participants [be] more satisfied with their health care experiences and more confident in their ability to advocate for themselves," says Assistant Professor Daniel Wilkenfeld. "I think this would be a great way to help people with developmental disabilities help themselves and each other and provide employment opportunities. My ultimate hope is to scale up the project." Wilkenfeld was awarded a \$50,000 grant through the Rita and Alex Hillman Foundation to fund the project Developmental Disability Navigators.

"The current plan is to train navigators in what accommodations are available and how to use participants' available communication modalities to ask for them, though the exact details might vary based on a focus group I ran in January," he says.

The project is funded through the end of 2024. ■

### **Eight Anesthesia Students Receive AANA** Foundation Scholarships

The University of Pittsburgh School of Nursing is thrilled to announce that at the American Association of Nurse Anesthesiology (AANA) 2023 Annual Congress, eight of its nurse anesthesia BSN to DNP students were awarded AANA Foundation Scholarships:

Julia Corbin (BSN '20)	Lan Pham (BSN
Vivian Dang	Ambria Reid
Meghan Levy	Margaret Schlut
Elizabeth Moore	Sarah Walker

The AANA Foundation received 2,593 competitive student scholarship applications this year and awarded 88 scholarships totaling \$263,750. Pitt Nursing students received 9% of awarded scholarships while representing less than 1% of the total national student body.



### Judith A. Erlen: A Trailblazer in Nursing Research and Mentorship

n the worlds of nursing and health care, there are luminaries whose contributions transcend the boundaries of their fields. Judith A. Erlen (BSN '66) is undoubtedly one such luminary whose remarkable career as a nurse, researcher, and mentor has left an indelible mark on the landscape of nursing and clinical care, particularly for individuals with chronic disorders. Her journey from dedicated nursing professional to esteemed fellow of the American Academy of Nursing and respected faculty member at the University of Pittsburgh School of Nursing is nothing short of inspirational.

Now an emeritus professor, Erlen previously served as chair of the Department of Health and Community Systems at Pitt Nursing, a role that placed her at the forefront of nursing education and research. Her expertise extended beyond the confines of a single department, with secondary appointments at both the Center for Bioethics & Health Law and the Clinical and Translational Science Institute. This extensive and diverse portfolio speaks to her multifaceted commitment to advancing health care and nursing.

One of Erlen's defining achievements has been her pioneering program of research, generously funded by institutions such as the National Institutes of Health and the Alzheimer's Association. Her research has been instrumental in shedding light on critical issues in nursing, including ethics, regimen adherence, and patients' quality of life. Her work not only has contributed to the academic and clinical discourse but also has helped to improve patient care and outcomes.

### Written by Missy Intrepido, Director of Development

Recognition for Erlen's exceptional contributions to nursing research has come in various forms. She has been honored with the Distinguished Contributions to Nursing Research award from the Eastern Nursing Research Society, a testament to her influence and impact within the nursing community, and the prestigious Nightingale Award of Pennsylvania for Nursing Research, highlighting her role as a torchbearer in nursing research excellence. At Pitt Nursing, she has been recognized with the Distinguished Alumni Award and the Dean's Distinguished Teaching Award.

In addition to her research accolades, Erlen has been an integral part of nurturing the next generation of nursing scholars. As associate director of Pitt Nursing's National Institute of Nursing Research-funded Center for Research in Chronic Disorders, she has played a crucial role in providing guidance and support to junior faculty members and postdoctoral fellows. Her dedication to mentorship extends to PhD students, for which she has been recognized with the Provost's Award for Excellence in Doctoral Mentoring.

Erlen's impact isn't limited to nursing students. She also regularly conducted ethics seminars for third-year medical student clerkships, fostering ethical decision making among future health care practitioners.

Beyond her contributions to Pitt Nursing as a faculty member, researcher, and mentor, she has given back to the school philanthropically. The Ruth and Bill Fincke PhD Student Research Award and PhD Student Scholarship Award were established in honor of her parents, reflecting her commitment to supporting scholars in their quest to advance scientific knowledge in nursing and clinical care. And she has contributed significantly to the Judith A. Erlen Nursing PhD Student Research Fund, further cementing her legacy as a champion of nursing research.

Erlen's career is a testament to the profound impact one individual can have on the field of nursing and health care. Her contributions in research, mentorship, and ethics have left an enduring mark, shaping the future of nursing and clinical care. Her legacy will continue to inspire generations of nurses and scholars for years to come as they strive for excellence in their pursuit of knowledge and compassionate patient care.



Throughout her illustrious career, Erlen has received numerous accolades, including the Nursing Distinguished Alumni Award in 2004, the Dean's Distinguished Teaching Award in 2008, and the Provost Award for Excellence in Mentoring in 2012. These accolades serve as a testament to her unwavering commitment to the field of nursing and her profound impact on the academic, research, and ethical dimensions of health care.

### Cameos of Caring

### Cameos of Caring Awards Gala Honors Nurses

ore than 800 guests gathered at the David L. Lawrence Convention Center in Pittsburgh on Nov. 3, 2023, for the annual University of Pittsburgh School of Nursing Cameos of Caring Awards Gala. Seventy-nine honorees were recognized from facilities across Western Pennsylvania and Italy.

When the Cameos of Caring tradition began in 1999, it was focused on recognizing bedside nurses who exhibited exceptional dedication to patient care. Today, it celebrates nurses in advanced practice roles, those specializing in quality and safety, nurses who excel in care management, champions of organ and tissue donation, and faculty members devoted to educating the next general of professional nurses. In 2023, the Research and Scholarship award category was added to recognize those profoundly impacting nursing science.



Congratulations to the following Pitt Nursing faculty and alumni who were recognized during the ceremony:

Catherine M. Bender, PhD '94, MN '79

Denise Charon-Prochownik, PhD, FAAN, faculty

Allison Joy DiPlacido, DNP '22, MSN '20

Suellen Jordan Gallegos, MSN '94, MSN '08

Allison Hicks, BSN '08

Kimberly A. Klamut, MSN '06

Valerie Krasneski-Schreiber, MSN '91

Claire Roman Madden, DNP '19

Mindy Nikolaevich, BSN '92

Meghan Pale, BSN '14

Mary Anne Richert, MSN '89, BSN '81

Natalie M. Scarmack, DNP

Stacey Schaeffer, BA '89

L. Kathleen Sekula, PhD '98, MSN '86

Tiarra Smith, BS '13

Susan W. Wesmiller, PhD '10, MSN '83, BSN '77

Bradley A. White, AS '05

Aprille Young, MSN '21, BSN '16, BS '13

Proceeds from the gala support the Camoes of Caring Endowed Nursing Scholarship, which supports registered nurses pursuing an advanced degree.







## STUDENTS EQUIPPED WITH THEIR RESEARCH

### CAN SHAPE THE FUTURE OF PATIENT CARE

TENSIA

he University of Pittsburgh School of Nursing has an unwavering commitment to fostering a culture of research excellence among its students. Empowering aspiring nurses with the tools, skills, and knowledge to engage in cutting-edge research is essential in today's rapidly evolving health care landscape. Through rigorous investigation and innovative thinking, students are uncovering new treatments, enhancing health care delivery systems, and ultimately saving lives.

Pitt Nursing students play a pivotal role in shaping the future of patient care and the advancement of health care. They are generating new insights, exploring unanswered questions, and investigating new interventions or practices. They are empowered to become lifelong learners and active contributors to the nursing profession.

"Our students and their research are powerful catalysts for transforming health care," says Pitt Nursing Dean Christine E. Kasper. "By actively engaging in research, our students are not only expanding their knowledge and skills but are contributing to groundbreaking advancements in patient care. Their dedication and passion have the potential to shape the future of nursing, leaving a lasting impact on the health and well-being of individuals and communities around the world."

Their work is invaluable. After all, how can you put a price on saving a life?

Our students and their research are powerful catalysts for transforming health care." Christine E. Kasper (PhD, FAAN, FACSM)

Nursing Dean and Professor



Stephanie Helman (MSN '11) graduated from the clinical nurse specialist, pediatric critical care, master's program and knew that when it was time to pursue a PhD, she was coming back to Pitt Nursing.

"I am a Pitt student through and through," she says. "I knew that I wanted research training that was rigorous and data driven, and the Pitt School of Nursing was the best fit for my future research trajectory."

In 2018, she started the journey toward earning her PhD with a Ruth L. Kirschstein Predoctoral Individual National Research Service Awardan extremely prestigious award that's challenging to receive. According to the National Institutes of Health, the award provides promising predoctoral students with an opportunity to receive mentored research training while they complete their dissertation research on human health-related topics.

Helman's area of research focuses on newborns with congenital heart defects (CHDs) after their first open-heart surgery and their

body temperature patterns in the postoperative period. She says that newborns are at an elevated risk of temperature instability during this period, especially low temperatures or hypothermia, and in patient populations of newborns without CHDs, hypothermia has been associated with poor outcomes.

"This work is near and dear to my heart because newborns with CHDs are vulnerable, and as nurses, we need to do everything that we can to prevent harm while they are in our care," she says. "Nurses are empowered to implement evidence into their practice and to optimize outcomes. I am excited to be able to present new research findings to nurses who care for newborns with CHDs, and I am hopeful that my research will impact their practice in a positive way."

Helman says that research is important to her because it methodically challenges clinical practice paradigms, and basing clinical practice on solid research findings will change nurses' practice so that it's more tailored to the population they're caring for.

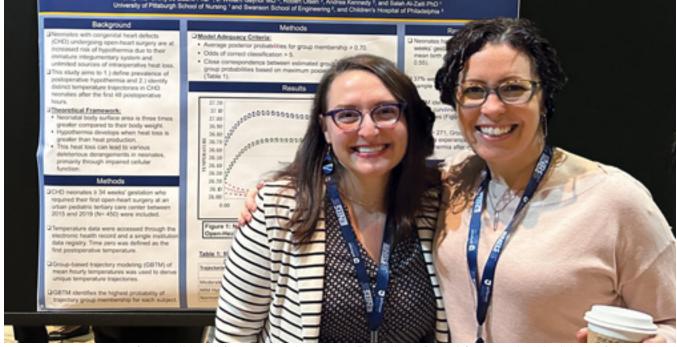
"Especially in nursing research that focuses on the pediatric population, compared to the adult literature, there is much less research done in

pediatrics," she says. "I am grateful to have been trained at a world-renowned research institution that has supported me to investigate such important research questions."

Helman says that it's her mentors who have been the most supportive and the most outside-the-box thinkers that an aspiring nurse scientist could ask for.

"When I started proposing my research ideas, there was some skepticism around postoperative unintentional hypothermia and it actually being a problem in my patient population," she says. "My mentors always backed me and believed in me. Without their support, I would not have been able to conduct my dissertation research [or,] more importantly, disseminate research findings that have potential to change clinical practice and positively impact patients. I will quote one of my mentors: 'Your patients should always be your North Star.' This sentiment has always stayed with me."

Helman graduated in December 2023 and hopes to continue her education with a postdoctoral research position.



Stephanie Helman (left) next to research poster at the Eastern Nursing Research Society meeting with collaborator, Dr. Amy Jo Lisanti

"After that, I hope to find an academic research appointment so that I can continue this important work and collaboration with my clinical partners," she says.

My mentors become one of the most essential reasons for me to choose coming back to Pitt nursing to pursue a higher degree." Youjia Wang (BSN '21)



For Youjia Wang (BSN '21), an interest in nursing research started when she was an undergraduate student in Pitt Nursing's Undergraduate

Research Mentorship Program.

"My undergraduate research experience made me realize how powerful and influential nursing research could be toward patients' and families' care," says Wang. "This experience also helped me to develop my interest in family caregivers, [who became] my current research population."

Wang worked alongside Pitt Nursing's Grace Campbell, whose research focuses on the impact of chronic disorders, mainly cancer, on physical function. Wang helped to set up and operate complex technical instruments, collecting data and understanding their meanings and implications. She also had the opportunity to work with Professor Heidi Donovan and her team at the Gynecologic Oncology Family CARE Center at UPMC Magee-Womens Hospital. Three months after receiving her BSN, Wang started an advanced nursing journey, working toward a joint Doctor of Nursing Practice/Doctor of Philosophy.

"My mentors became one of the most essential reasons for me to choose coming back to Pitt Nursing to pursue a higher degree," she says. "They have already become my families

in research as well as in real life.

After getting into the graduate program, I had struggled with forming my research ideas for a long time. I was so lucky to have as my mentor Young Ji Lee, who was always so patient and strategic in guiding me step by step to find what interested me the most. I was so thankful that Dr. Lee often used her previous experience as an international PhD nursing student to cheer me up and set a fabulous model for me whenever I felt I was trapped in difficult situations."

By working as a graduate student researcher/assistant alongside multiple Pitt Nursing faculty researchers, Wang says that the richness of different research experiences started to give her a better understanding of what nursing research is. She says that every mentor has been graciously and passionately teaching her everything about nursing research.

Wang has been working with Lee on her HELPeR (Health E-Librarian with Personalized Recommendations) study, which is the first study to guide cancer patients' decision-making and self-management activities by providing a navigational support to locate appropriate information on the internet. This experience allows her to work with a multidisciplinary team, sharing her knowledge within her area of expertise and learning more about complicated computer modeling and how it could be applied to health care.

"I'm also working with Drs. Donovan and Campbell on their SmartRehab/ Smartcare study, which focuses on developing a mobile app containing topics like symptom management, treatment options, [and] self-assessment specifically for ovarian cancer patients and caregivers," she says. "After working on this project, I started to realize the amount of time and effort it needs to be put into intervention development. Dr. Donovan and her team also have [helped] me understand the beauty of collaboration, and I could not be grateful enough to be part of this team!"

Wang also worked with Associate Professor Teresa Thomas on her Strong Together study, which aims to improve self-advocacy in women with advanced breast cancer through the use of serious game.

"Protocol development, participant screening, and Dr. Thomas' working attitude taught me the rigorousness of research and provided me a clearer picture of the amount of initial work needed to be done prior to implementation," Wang says. "I also have been involved with Denise Charron-Prochownik's StoppingGDM study, which focuses on increasing awareness, knowledge, health beliefs, behaviors, and communication of gestational diabetes risk and reproductive health in American Indian/Alaska Native adolescent daughters and their mothers. Dr. Charron-Prochownik's project let me see the necessity of research dissemination and how nursing research could change clinical practice. Together, these research experiences give me a sense of the meaning of interdisciplinary teamwork and how technology could be integrated into better nursing care [for] patients and their care partners."

Wang says that this research experience is helping her to have a more holistic understanding about nursing research, from planning, implementation, and evaluation to dissemination.

"It also sets a solid foundation and gives me inspiration to utilize technology in caregiving research for my dissertation," she says. "I always believed that I could not get this far in my research journey without the support and mentorship from all these great faculty researchers. And I am so looking forward to my future research journey continuing together with them. "I hope one day I can become a passionate, influential, and life-changing nurse as my mentors are both in research and in clinical practice," says Wang.

### From One Research Interest to the Next

Student research interests can sometimes shift as projects progress.

Before Tara Davis started the PhD program at Pitt Nursing, she was a clinical research nurse and coordinator at Suburban Hospital in Bethesda, Maryland, where she helped to coordinate study-side

activities for a National Institute of Neurological Disorders and Stroke program using acute neuroimaging to study the traumatic brain injury and stroke populations.

"My work in acute neuroimaging exposed me to the importance of CT and MRI to show structural abnormalities of the brain," says Davis. "However, it also brought to my attention [the fact] that neuroimaging is not always reliable for predicting patient outcomes or symptoms. This experience was instrumental in developing my understanding of clinical research and my desire to seek higher education to better understand biological mechanisms and the role they play in predicting patient outcomes and symptoms."

Because Davis was interested in using omics approaches to understand patient symptoms and outcomes, she sought the mentorship of Pitt Nursing's associate dean for research and scholarship, Yvette Conley, who's also a professor of human genetics. "Given [Conley's] expertise in molecular genomics and using omics methods to address patient outcomes, symptom development, and therapeutic interventions, I knew that I wanted to be involved in the research being done at the University of Pittsburgh School of Nursing," Davis says.

When she first started the PhD program, she worked on a study exploring genes related to antioxidative stress and patient outcomes following traumatic brain injuries. But while working on that study, Davis found that breast cancer and breast cancer-related treatments may result in neurological injury and subsequent neurological symptoms, including cancer-related fatigue. Recognizing the potential neurological impact of breast cancer and its treatments, Davis shifted her dissertation to focus on breast cancer-related fatigue.

"Cancer-related fatigue is a very common and concerning symptom among cancer patients, including women with breast cancer," says Davis. "Unfortunately, we don't fully understand the causes of cancer-related fatigue, and currently there's no single effective treatment. However, exercise has been shown to help relieve cancer-related fatigue. Studying antioxidative stress-related genes may uncover some of the biological underpinnings of how cancer-related fatigue develops and its mitigation by exercise in the breast cancer population."

Davis' dissertation study aims to examine cancer-related fatigue in women with early-stage breast cancer who are randomized to a moderateintensity exercise intervention compared to usual care. Additionally, social factors such as the area deprivation index will be considered. Davis is capitalizing on data and biospecimens generated through two National Cancer Institute-funded projects overseen by her mentors, Catherine Bender and Conley.

"In collaboration with my dissertation committee members, I recently published a preliminary study in Supportive Care in Cancer that supports the relationship between



pretreatment cancer-related fatigue in women with early-stage breast cancer and variation in genes involved with both oxidative stress and DNA repair," says Davis. "My passion as a nurse has always been to improve patient outcomes and quality of life, and cancer-related fatigue is known to negatively affect both. Understanding the biological underpinnings of cancer-related fatigue may contribute to effective targeted treatments that improve patient outcomes and quality of life."

### Destination: Postdoctoral Research and How One Cold Email Can Play an Essential Role in a Researcher's Work

Not only does Pitt Nursing demonstrate exceptional proficiency in attracting top-tier student researchers, but postdoctoral scholars. Some of whom specifically seek out the world-renown faculty to work collaborate with.

Mitali Ray calls her journey into nursing untraditional. Ray earned a BS in biology with a concentration

in cell and molecular biology and a minor in molecular biology, biochemistry, and bioinformatics from Towson University, then pursued her PhD in biomedical sciences with a concentration in organ systems and translational medicine from the

Lewis Katz School of Medicine at Temple University. But early in her graduate career, Ray says that she struggled with formulating research questions that she was passionate about and eager to answer.

"I knew something was missing from my career, and I chalked it up to a lack of interaction with patients. I was craving a reminder of why I was doing research in the first place," says Ray. "After talking with countless nurse-scientists, I decided to pursue a nursing degree after my PhD." During her accelerated BSN program at West Chester University of Pennsylvania, Ray delved into research on funded projects centered around preeclampsia. It was during this time that she discovered a captivating project led by Pitt Nursing former faculty member Mandy Schmella.

"I emailed Dr. Schmella because I wanted to learn more about her, and we ended up chatting about her work, the wealth of resources at Pitt for pregnancy-related research, and postdoctoral opportunities," says Ray. "Dr. Schmella introduced me to [Pitt Nursing's] Yvette Conley, who has a National Research Service Award Institutional Research Training Grant program dedicated to training nurses in omics. Many emails, phone calls, and a drive from Philadelphia to Pittsburgh later, the stars aligned, and I was offered a postdoctoral scholar position on Dr. Conley's T32."

During her postdoctoral scholar position at Pitt, Ray received a competitive National Institutes of Health/National Institute of Nursing Research MOSAIC (Maximizing Opportunities for Scientific and Academic Independent Careers) grant award for her project, Allostatic Load and Race: Implications for Cardiovascular Health in Pregnancy and Beyond.

"Nothing makes me happier than when people ask me about my research," says Ray. "While my graduate work was centered around studying inflammation and angiogenesis in the context of vascular injury and remodeling, it wasn't until nursing school that I learned the relevance of my training for serving women and people experiencing pregnancy. My current research is dedicated to understanding the relationships between various stress exposures and the epigenome, with a particular focus on understanding the stark racial disparities of hypertensive disorders of pregnancy. My future research will extend this line of investigation to post-pregnancy, as

hypertensive disorders of pregnancy often lead to accelerated cardiovascular disease. My research is so important to me, and I genuinely feel so fortunate to be able to do this meaningful work that I am so passionate about."

Ray says that while her PhD was a crucial part of her education, her nursing degree provided the most flexibility and a powerful holistic lens.

"Nurses spend the most time with patients and truly understand the value of research because we've seen the extent of the limitations that exist while advocating for our patients," she says. "Whether it takes place at the bedside, in the community, or at the lab bench, nurses are acutely aware of the endless areas for improvement as well as the importance of evidence-based practice. That is what is so unique and significant about nursing research and why I think it is such a valuable pillar in interdisciplinary research."

Pitt Nursing student researchers are playing a vital role in advancing health care by fostering innovation, enhancing patient care, and driving evidence-based practice. Their contributions, whether through individual projects or collaborative endeavors, generate new knowledge, challenge existing practices, and propose innovative solutions to health care challenges. Students have the potential to shape policies, improve patient safety, and enhance the overall quality of care.

And the student researchers and postdoctoral fellows at Pitt Nursing know that their work is making a difference.

"I believe that nursing research will play a major role in the path to eliminating disparities and achieving equity and justice," says Ray. "I feel honored to be able to contribute to this endeavor through the program of research I am building and my collaborations with other talented Pitt nurse-scientists."

# HUBS Give Students an Exclusive Experience in Advancing Nursing Science and Practice

Most of the research happening at the University of Pittsburgh School of Nursing comes from its eight Nursing Research and Scholarship Hubs. These hubs foster collaborative, interdisciplinary research programs that feature multiple faculty members and students with similar research interests. ur research hubs foster collaboration, advance nursing science, address health care challenges, provide training and mentorship, and attract external funding," says Pitt Nursing Dean Christine E. Kasper, PhD, FAAN, FASCM. "They contribute to the overall research culture and academic excellence at Pitt Nursing [and] improve health care outcomes for individuals and communities."

These rigorous research programs are aimed at advancing nursing science and practice and are an exclusive feature of Pitt Nursing, putting the school at the forefront of high-impact scientific discoveries.

### Nursing Education Research and Scholarship Hub

The field of nursing education is undergoing a dynamic transformation to meet the evolving needs of health care. Currently, the nursing profession is confronted with a shortage of nurses at local, regional, and national levels, leading to a scarcity of nursing faculty. Moreover, patient care has become increasingly intricate due to prolonged life expectancy, the prevalence of multiple chronic conditions, and a pressing focus on addressing health disparities.

Nursing education is moving toward competency-based education emphasizing clinical judgment processes, interprofessional collaboration, and care for patients from medically underserved areas or populations. With improved technologies, simulation education is shown to enhance students learning, and with changes in teaching, research is needed to ensure that innovations support the teaching and learning of nursing competencies. Enter the Nursing Education Research and Scholarship Hub, the newest research hub at Pitt Nursing.

"This hub provides a place for our clinical faculty to collaborate on research around what they do best: educate students who enter the workforce as highly prepared nurses," says hub director Amy Bowser, PhD. "Our graduates are ready to care for patients from diverse populations, reduce health disparities in medically underserved areas and populations, advocate for quality health care and patient safety, and advance the nursing profession. A gap that exists at the School of Nursing is in publishing rigorous studies that show that what we do is supporting student learning. We want to provide examples to the health care education community of what we do to have such successful graduates."

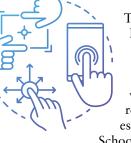
The Nursing Education Research and Scholarship Hub bridges the gaps among the expectation of faculty scholarship, training in the scholarship of teaching and learning in nursing, and the need for increased robustness of nursing education research. Faculty collaborate to develop research questions focused on problems of practice in day-to-day teaching in several core areas.

"Dean Emeritus Jacqueline Dunbar-Jacob created the Center for the Scholarship of Teaching and Learning in Nursing to provide research support to clinical faculty," says Bowser. "Transitioning the center to a hub provides the opportunity for more collaboration across all departments on grant writing, research projects, and manuscript development. There is more of a schoolwide team feel within a hub."

Bowser says that the hub also will bring in expert speakers on educational research methodologies and current topics in nursing education research. Core faculty will be involved in research projects supporting the initiative to increase simulation, clinical judgment, social determinants of health and health disparities, and online teaching.

"This is an exciting hub because clinical faculty with DNPs are trained to be exceptional clinicians, not research scientists," says Bowser, "yet universities like Pitt expect excellence in research and scholarship. This new hub provides the platform for our faculty, who do incredible innovations in teaching, to publish more."

### Hub for Excellence in Digital Health Research



The Hub for Excellence in Digital Health Research, formally known as the eHealth Hub, was one of the first research hubs established at the School of Nursing to

promote research on the development and testing of technologybased interventions. However, the hub recently underwent a transformation to embrace the changing landscape of digital health research. Originally focused on technology, it now encompasses health informatics and clinical data science, reflecting the broader scope of its research endeavors to innovate digital solutions that advance the science of health, health care, and health equity.

"The primary goal of the hub remains the same: to bring together School of Nursing researchers [and] trainees and our transdisciplinary collaborators who are harnessing novel technologies and data science to improve health care and health outcomes," says hub director Annette DeVito Dabbs, PhD, FAAN. "The Digital Health Hub includes two cores that provide important infrastructure support for research grounded in behavioral theories and guided by principals of team science, human-centered design, and design justice."

The Interactive Health Technologies Core focuses on the use of advanced technologies for the assessment and delivery of interventions applying the principles of user-centered design, design justice, and strategies that support long-term engagement in the use of technology to support sustained behavior change and engagement in health care programs.

The Health Informatics and Data Science Core focuses on the development and use of methods and technologies to acquire, process, and study data and to discover, extract, and manage new knowledge relating to health and disease in individuals, groups, families, or communities.

Other goals of the hub include developing a robust infrastructure for machine learning, artificial intelligence, and data science to address existing obstacles faced by faculty members and trainees at the School of Nursing and other schools and departments at the University of Pittsburgh; encouraging hub participants to complete bias training; and developing a website to share digital health research, education, and communication activities.

"The Digital Health Hub provides the infrastructure for nurse-scientists to lead transdisciplinary teams and contribute their unique domain expertise to these rapidly growing fields," says DeVito Dabbs.

### Genomics of Patient Outcomes Hub

"One-size-fits-all approaches to patient care do not work," says Genomics of Patient Outcomes Hub director Yvette Conley, PhD, FAAN. "It ignores the impact of biology, behavior, lifestyle, and environment. Precision health care acknowledges that a holistic view of patients that takes multiple determinants of health into consideration is necessary for optimal patient outcomes."

Genomic approaches have evolved from primarily investigating susceptibility to disorders to now exploring the variability in patient outcomes. Nurses are at the forefront of optimizing patient well-being, and incorporating genomics and other omic approaches like transcriptomics, proteomics, and epigenomics into patient outcome research is a timely and important endeavor.

The goal of the Genomics of Patient Outcomes Hub is to enhance interdisciplinary biobehavioral research that uses genomics and other state-of-the-science omics approaches to advance the science of patient outcomes, broadly defined to include symptom experiences, functional status, adverse events, recovery trajectory, response to intervention, and psychological distress.

At the forefront of optimizing patient outcomes and bringing a more holistic view of the patient needed when integrating precision health into practice are nurses.

"This hub brings together faculty, staff, students, and resources to facilitate biosocial and biobehavioral research at Pitt Nursing to improve patient outcomes," says Conley. "The hub builds upon the strong research and training relationships already in place among Pitt Nursing, the other schools of the health sciences at Pitt, the Clinical and Translational Science Institute, and other centers that support precision health research."

Conley says that what's noteworthy about this hub is that encompasses the National Institute of Nursing Research-funded Targeted Research and Academic Training Program for Nurses in Genomics, has close ties with the International Society of Nurses in Genetics, and oversees laboratory and biobank resources at Pitt Nursing.

### Sleep and Circadian Science Research Hub



One-third of our lives is consumed by sleep, and sufficient sleep is needed for optimal physical and mental health and cognitive performance.

Inadequate sleep duration and timing, poor quality of sleep, and sleep disorders such as insomnia and sleep apnea can reduce quality of life and negatively impact health.

"The goals of the Sleep and Circadian Science Research Hub are to gain a better understanding about how sleep impacts health and well-being across diverse populations and to discover how addressing sleep problems can improve individuals' lives," says hub director Faith Luyster, PhD. "The hub is focused on fostering collaborative relationships with researchers within the School of Nursing, the University of Pittsburgh, and beyond."

The hub is continuing to grow its membership, which includes faculty, postdoctoral fellows, and undergraduate and graduate students and has members from academic institutions outside the University of Pittsburgh.

"Research conducted by sleep hub members has enabled further understanding of how sleep apnea affects women, the impact of shift work on the health of nurses, how preoperative management of obstructive sleep apnea can improve postoperative complications, and the impact of sleep problems on cardiovascular disease risk in patients with asthma/chronic obstructive pulmonary disease overlap," says Luyster.

The hub hosts biweekly meetings that serve as a venue for sharing research ideas, building collaborations, learning about new research and products related to sleep, and gaining feedback on research projects.

### Nursing Health Services and Policy Research Hub



Health services and policy research is an interdisciplinary field dedicated to studying the financial, organizational, and delivery aspects of health care services.

Its primary objective is to ensure access to high-quality and affordable health care while promoting the overall health and well-being of the population.

"The long-term goal of the hub is to establish Pitt Nursing as an epicenter of the Nursing Health Services and Policy Research Hub by extending and supporting the work of researchers currently performing health services and policy research within the School of Nursing and to develop new health services and policy research within the school," says Grant Martsolf, PhD, FAAN, hub director. "The hub would build on the resources and expertise of our faculty. Our early efforts will focus on understanding and improving the quality, cost, and access to care delivered to individuals with chronic conditions, especially major behavioral health conditions. We also will focus specifically on the role of advanced practice providers within primary care and specialty practices toward addressing the needs of patients with chronic conditions."

Two projects within the hub have already received funding, and two National Institutes of Health Research Project Grants related to nurse practitioners will focus on their work environments as well as disparities in outcomes for patients with chronic diseases.

"We also will focus specifically on the role of advanced practice providers within primary care and specialty practices toward addressing the needs of patients with chronic conditions," Martsolf says. Martsolf also says that some of the hub's work is looking at global issues. Assistant Professor Joshua Porat-Dahlerbruch, PhD, is doing preliminary work on nurse practitioner integrations into health systems across the work, while Martsolf is working on a project advocating for advanced practice registered nurses in Argentina.

"We have also developed an offshoot group that is working on issues related to men in health care," says Martsolf, "while Assistant Professor Andrew Dierkes, PhD, is developing a huge data set of staffing and outcomes at UPMC hospitals [that] will be cutting edge. It's an exciting time."

### **Cancer Survivorship Hub**



The National Cancer Institute says that roughly 2 million people will be diagnosed with cancer in the United States in 2023. Breast cancer, prostate cancer, and lung

cancer are the three most common cancer diagnoses.

From the moment a person is diagnosed with cancer, they become a survivor. With advancements in screening and treatment, an increasing number of individuals are now living long after their cancer diagnosis, and many have been cured of the disease. However, numerous survivors continue to experience symptoms and adverse effects from cancer and its treatment, persisting for years following the completion of therapy and significantly impacting the quality of life for both cancer survivors and their caregivers.

Pitt Nursing's Cancer Survivorship Hub provides a forum for students seeking to expand their knowledge about cancer survivorship and for nurse-scientists involved in cancer survivorship research to advance their programs of research through collaboration. "It is a great experience to have a community of researchers who are focused on the care of patients, families, and communities with cancer," says Margaret Rosenzweig, PhD, FAAN. "The hub is a great source of information, support, and encouragement."

Rosenzweig received funding from the Cancer Survivorship Hub when it was first formed to explore the temporal association between symptoms and adherence to intravenous chemotherapy in Black women with breast cancer compared to white women. It was one of the first studies to examine these relationships in Black women and focus on intravenous chemotherapy.

The hub is composed of a diverse group of faculty, postdoctoral fellows, and doctoral students representing various disciplines.

"It is hard to describe the unbelievable support and collaboration that the members of the Cancer Survivorship Hub have provided me over the past 10 years," says Associate Professor Susan Wesmiller, PhD, FAAN. "Our hub meetings are a safe place to discuss new ideas for students, postdoctoral scholars, and faculty alike."

"The weekly/biweekly hub meetings that include oncology faculty and trainees have been so important to reenergizing the oncology faculty and elevating the level of scholarship among our trainees," says Professor Heidi Donovan, PhD. "We have developed several collaborative projects across research teams and are looking forward to more opportunities. It's been a welcome antidote to the sense of isolation during COVID."

### Maternal/Perinatal and Reproductive Health Research Hub

The field of maternal, perinatal, and reproductive health focuses on the well-being and health care needs of individuals across

the reproductive life span, including before, during, and after pregnancy, and encompasses a broad range of topics related to women's health, pregnancy, childbirth, postpartum care, and reproductive processes.

Pitt Nursing's Maternal/Perinatal and Reproductive Health Research Hub has a primary goal of accelerating and amplifying research in the field, from fostering research collaborations and attracting and retaining and accomplished and diverse group of faculty and students to providing support for the development of research projects by hub members and enhancing access to valuable research resources. Through these initiatives, the hub aims to advance knowledge in and make significant contributions to the field of maternal, perinatal, and reproductive health.

"Our hub has ensured nursing is a playing a critical role in perinatal and women's health research in this region, nationally, and internationally," says hub director Jill Demirci, PhD. "We have a critical focus on preparing the next generation of nursing and health care researchers to address the most pressing problems in perinatal and women's health."

Demirci says that the hub has funded two ongoing pilot research projects led by Pitt Nursing faculty and teams, one examining the s elf-advocacy experiences of Black women in the Pittsburgh area during the perinatal period and one exploring how birthing parents with cancer navigate decisions about infant feeding and cancer treatment and their access to lactation support resources.

"We host a multidisciplinary monthly meeting that includes faculty, students, and community members [and that] consist of hub updates and strategic planning, works in progress research discussions, and resource sharing. We have a core group of 10-12 individuals who attend meetings," says Demirci. "Outside the School of Nursing, our largest subgroup of attendees is early career faculty and students from Pitt's School of Public Health. In these endeavors, we have facilitated multiple connections across the schools of the health sciences, which have led to new interdisciplinary research collaborations."

Demirci says that the hub is continuing to grow its clinical and community collaborations in perinatal and reproductive health research. She is involved with nurse-led research and QI to improve breastfeeding support of Black birthing people at UPMC Magee-Womens Hospital, and staff members from the hub collaborate with other research groups on campus, including those from the Center for Innovative Research on Gender Health Equity and the Maternal Health Equity Scholars Group at the School of Public Health.

### Aging and Gerontological Nursing Research Hub



The American population is getting older. According to the U.S. Census Bureau, the population of older Americans is expected to reach 95 million by 2060. This substantial increase will

result in a shift from 16% to 23%, meaning that nearly a quarter of the country's population will be 65 or older within a relatively short span of time. Consequently, there is a pressing need for a strong and comprehensive body of evidence to support the promotion of healthy aging and enhance the management of individuals with age-related health conditions.

"The Aging and Gerontological Nursing Research Hub has ensured that nursing is playing a significant role in research on gerontology, aging and care of older adults locally, nationally, and internationally," says Elizabeth Schlenk, PhD, FAAN, associate dean for graduate clinical education at Pitt Nursing. "We have a key focus on preparing the next generation of nurse researchers to address the most compelling problems in the health of the growing population of older adults."

The hub has funded one ongoing pilot research project led by faculty at Pitt Nursing that aims to explore the cross-sectional and longitudinal associations among physical activity complexity, cognitive function, and risk of mild cognitive impairment and dementia.

The hub has established successful collaborations with other research groups at the University of Pittsburgh, including the Pitt Claude D. Pepper Older Americans Independence Center, Alzheimer's Disease Research Center, Community Engagement Centers. National Rehabilitation Research & Training Center on Family Support, and Gynecologic Oncology Family CARE Center at UPMC Magee-Womens Hospital. Schlenk says that the participation is reciprocal, with some faculty and student members attending their committee meetings and programs, providing opportunities for presentation and feedback. Collaborations with clinical and community organizations also continue to grow.

### **Making a Profound Impact**

Through Pitt Nursing's research endeavors, the hubs are generating knowledge and innovative solutions, addressing



pressing societal issues, improving health care practices, and contributing to the well-being of individuals and communities.

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Shaping Research Advancement at Pitt Nursing: Yvette Conley Named Associate Dean for Research and Scholarship



ursing research stands as a vital cornerstone of the health care landscape, paving the way for evidence-based practices and advancements that shape the quality of patient care and wellness in our communities. With its profound impact on nursing education, policy development, and clinical decision making, research offers a transformative lens through which health care professionals and students can explore, question, and innovate, thereby not only enriching the nursing profession but also enhancing the well-being and outcomes of individuals and communities worldwide.

The University of Pittsburgh School of Nursing has been a leader in nursing research since the 1950s. The school is dedicated to providing faculty and students with the resources and support they need to generate new health care knowledge related to direct clinical practice and public health policy.

And the future holds even greater promise.

### An exciting time for Pitt Nursing

For decades, Yvette Conley, PhD, FAAN, has been an enduring presence at Pitt Nursing despite an unconventional background in the field. Having obtained her BA in }biology from Florida Atlantic University in 1989, Conley took the next steps on her academic journey at the University of Pittsburgh, where she earned an MS in genetic counseling in 1993 followed by a PhD in human genetics in 1999. After completing her postdoctoral fellowship, she joined the ranks at Pitt Nursing as an assistant professor, marking the beginning of a distinguished career within the institution.

"During my postdoc, I started to think about potential faculty positions," says Conley. "Part of me wanted to get closer to my family back home in New York, but part of me wanted to remain at Pitt. Then serendipity intervened. Pitt Nursing and the dean at that time, Ellen Rudy, were looking to bring genetics to the curriculum and a research environment to the school. When I interviewed for the position, I was impressed by the research that faculty were conducting and by the newly built laboratory space that would be available to me. I accepted the offer of a faculty position, and it has been the best decision I've ever made for my career."

Conley's contributions and responsibilities at the University of Pittsburgh are plentiful. She currently serves as Distinguished Service Professor of Nursing, professor of human genetics, and professor of clinical and translational science; director of the National Institute of Nursing Research-funded Targeted **Research and Academic Training** Program for Nurses in Genomics; director of the Genomics of Patient Outcomes Hub at Pitt Nursing: an associate member of the Safar Center for Resuscitation Research; and an investigator in the Biobehavioral Cancer Control Program at UPMC Hillman Cancer Center.

In addition to these roles, Conley previously served as director of Pitt Nursing's PhD program and as vice chair for research in the Department of Health Promotion and Development. However, her impactful journey at the school reached new heights when she assumed a crucial and significant position as the new associate dean for research and scholarship in 2023.

"This is an exciting time for Pitt Nursing, and I am honored and thrilled to take on this leadership position," says Conley. "My initial priorities will be focused on enhancing the infrastructure for research and scholarship within the school; facilitating synergy and increasing collaboration among programs of research, scholarship, and education; recruiting new faculty; and increasing the visibility of Pitt Nursing."

### Fostering holistic nursing, innovative research, and scholarly excellence

In her new role, Conley expresses her commitment to cultivating a culture at Pitt Nursing that not only encourages but also values and celebrates a fervent dedication to research and scholarship. Her vision encompasses an energetic atmosphere that nurtures a holistic vision, propels groundbreaking research, and appreciates the unwavering commitment and enthusiasm of individuals involved in scholarly pursuits.

"My vision is to create an environment where nursing's holistic view of patients, families, and communities can flourish; where faculty and students can harness progressive and innovative approaches to research and scholarship; and where passion for research and scholarship is nurtured and celebrated," she says. "I plan to accomplish this by fostering synergy around research and scholarship in the school by providing venues and resources for increased collegiality and interdisciplinary partnerships, particularly across our hubs of research and scholarship. I will also focus on overhauling the infrastructure around research and scholarship in the school and hiring new faculty who share our enthusiasm for the future of nursing."

Conley knows that passion is vital in research. It fuels motivation, drives

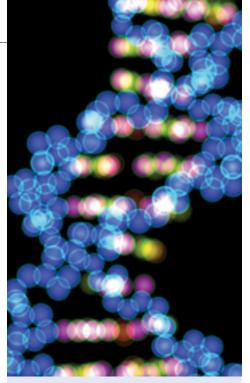
innovation, nurtures curiosity, and provides a sense of purpose. It is this passion that empowers researchers to make significant contributions, pushing the boundaries of knowledge and ultimately benefiting humanity and health care. Conley aims to uphold Pitt Nursing's renowned reputation for research by ensuring the continuity of its impressive research endeavors.

"Pitt Nursing is fortunate to have exceptional faculty conducting impactful research and scholarship that creates and applies the evidence needed to inform nursing practice and influence the health and wellness of individuals, families, and communities locally, nationally, and globally," says Conley. "In the next 10 years, I see Pitt Nursing continuing and strengthening our commitment to conducting multilevel research, mechanistic and causal research, and research focusing on multiple determinants of health and their interactions using state-of-thescience study designs and approaches."

"Research serves as the cornerstone of our institution, fueling innovation, driving advancements, and shaping the future of our disciplines," says Pitt Nursing Dean Christine E. Kasper, PhD, FAAN, FACSM. "It is through rigorous inquiry and exploration that we push the boundaries of knowledge, challenge existing thought and uncover new possibilities. I look forward to seeing the new research endeavors Dr. Conley comes up with while supporting current research within the School of Nursing."

### The future is bright

The research at Pitt Nursing holds the key to unlocking innovative solutions, advancing patient care, and shaping the future of nursing practice. Conley hopes that in her new role, she can encourage Pitt Nursing researchers, both faculty and students, to address some of the complex challenges that lie ahead while guiding the school toward a future of transformative health care.



Conley's research interests in the field of molecular genetics have been recognized nationally.

In 2015, she was selected for the International Society of Nurses in Genetics Founders' Award for Research, one of the organization's highest forms of recognition. In 2022, she was chosen to receive the Eastern Nursing Research Society's Distinguished Contributions to Research Award, which is given every year in recognition of sustained and outstanding contributions to nursing research by a senior investigator. Most notably, in 2016, she was recognized as an honorary fellow of the American Academy of Nursing-a prestigious appointment held by very few non-nurses.

# New Al Tool Beats Standard Approaches for Detecting Heart Attacks

Written by Asher Jones, UPMC, manager, science writing

new machine learning model uses electrocardiogram (ECG) readings to diagnose and classify heart attacks faster and more accurately than current approaches, according to a study led by University of Pittsburgh researchers that was published in Nature Medicine.

"When a patient comes into the hospital with chest pain, the first question we ask is whether the patient is having a heart attack or not. It seems like that should be straightforward, but when it's not clear from the ECG, it can take up to 24 hours to complete additional tests," says lead author Salah Al-Zaiti, PhD, RN, associate professor in the Pitt School of Nursing and of emergency medicine and cardiology in the School of Medicine. "Our model helps address this major challenge by improving risk assessment so that patients can get appropriate care without delay."

Among the peaks and valleys of an electrocardiogram, clinicians can easily recognize a distinct pattern that indicates the worst type of heart attack caused by total blockage of a coronary artery and requires immediate intervention to restore blood flow.

The problem is that almost twothirds of heart attacks are caused by severe blockage but do not have the telltale ECG pattern. The new tool helps detect subtle clues in the ECG that are difficult for clinicians to spot and improves classification of patients with chest pain.

The model was developed by coauthor Ervin Sejdić, PhD, associate professor at The Edward S. Rogers Department of Electrical and Computer Engineering at the University of Toronto and the Research Chair in Artificial Intelligence for Health Outcomes at North York General Hospital in Toronto, with ECGs from 4,026 patients with chest pain at three hospitals in Pittsburgh. The model was then externally validated with 3,287 patients from a different hospital system. The researchers compared their model to three gold standards for assessing cardiac events: experienced clinician interpretation of ECG, commercial ECG algorithms and the HEART score, which considers history at presentation (including pain and other symptoms), ECG interpretation, age, risk factors (such as smoking, diabetes, and high cholesterol), and blood levels of a protein called troponin.

The model outperformed all three, accurately reclassifying one in three patients with chest pain as low, intermediate, or high risk.

"In our wildest dreams, we hoped to match the accuracy of HEART, but we were surprised to find that our machine learning model based solely on ECG exceeded this score," says Al-Zaiti.

According to coauthor Christian Martin-Gill, MD, MPH, chief of the Emergency Medical Services (EMS) division at UPMC, the algorithm will help EMS personnel and emergency department providers to identify people having a heart attack and those with reduced blood flow to the heart in a much more robust way compared with traditional ECG analysis.

"This information can help guide EMS medical decisions such as initiating certain treatments in the field or alerting hospitals that a highrisk patient is incoming," Martin-Gill adds. "On the flip side, it's also exciting that it can help identify low-risk patients who don't need to go to a hospital with a specialized cardiac facility, which could improve prehospital triage."

In the next phase of this research, the team is optimizing how the model will be deployed in partnership with City of Pittsburgh Bureau of Emergency Medical Services. Al-Zaiti says that they're developing a cloudbased system that integrates with hospital command centers that receive ECG readings from EMS. The model will analyze a patient's ECG and send back a risk assessment, guiding medical decisions in real time.

Other authors who contributed to this research were Zeineb Bouzid, Stephanie Helman, MSN, RN, Nathan Riek, Karina Kraevsky-Phillips, MA, RN, Gilles Clermont, MD, Murat Akcakaya, PhD, Susan Sereika, PhD, Samir Saba, MD, and Clifton Callaway, MD, PhD, all of Pitt; Jessica Zègre-Hemsey, PhD, RN, of the University of North Carolina; Ziad Faramand, MD, of Northeast Georgia Health System; Mohammad Alrawashdeh, PhD, of Harvard Medical School; Richard Gregg, MS, of Philips Healthcare; Peter Van Dam, of University Medical Center Utrecht; Stephen Smith, MD, of Hennepin Healthcare and the University of Minnesota; and Yochai Birnbaum, MD, of Baylor College of Medicine.

This research was supported by the National Heart, Lung, and Blood Institute; National Center for Advancing Translational Sciences; and National Institute for Nursing Research.

In our wildest dreams, we hoped to match the accuracy of HEART, but we were surprised to find that our machine learning model based solely on ECG exceeded this score"

Salah Al-Zaiti, PhD, RN associate professor in the Pitt School of Nursing

### **Alumni Achievements**

Jeffrey J. Alvarez Jr. (BSN '00) moved into the role of vice president, patient care services, and chief nursing officer for UPMC East and UPMC McKeesport.

**Maighdlin Anderson** (DNP '17, MSN '12) was a 2023 recipient of the Presidential Citation for her outstanding contributions to the Society of Critical Care Medicine. Anderson also was awarded fellowship in the Academy of Wilderness Medicine.

Helen Burns (MN '81, PhD '93) was appointed the Rev. Owen Roth, OSB, Inaugural Chair of the Department of Nursing at Saint Vincent College. In this role, Burns will develop and direct the new BSN degree program in the Herbert W. Boyer School of Natural Sciences, Mathematics and Computing.

**Chi Ching Vivian Hui** (PhD '22) received an American Medical Informatics Association Leadership and Education Awards Donation Fund award for the Informatics Summit.

**Diane Hupp** (DNP '14), president, UPMC Children's Hospital of Pittsburgh, received a DAISY Lifetime Achievement Award in May 2023 from the DAISY Foundation.

**Bomin Jeon** (PhD '22) received the 2023 Dissertation Award from the Midwest Nursing Research Society Symptom Science Research Interest Group.

Margaret Larkins-Pettigrew (BSN '76) was named academic chair of the Department of Obstetrics and Gynecology at Drexel University's College of Medicine

Jason Spinnewber, a Psychiatric Mental Health Nurse Practitioner Certificate 2023 recipient, received the Pitt outstanding graduate award in honor of Shirley Kobert, MNEd, CRNP, during the Nurse Practitioners Association of Southwest Pa. annual banquet.



### In Memoriam

#### 1940s

Jane Sprague (BSN '49)

#### 1950s

Ruby Wilson (BSNEd '54) June Grace (BSN '55) Rose Goda (BSN '57)

#### **1960**s

Nadine Plummer (BSN '62) Anne Donnelly (BSN '64) Patricia Sofranko (BSN '65) Sandra Chubon (BSN '66) Sandra Morgan (BSN '67)

#### **1970**s

Carol Haus (BSN '72, MSN '83, PhD '03) E. Jane Martin (MN '73) Mildred Flaherty (MSN '75, PhD '86)

### 1980s-2000s

Kathryn Conrad (BSN '81, MSN '85)

Mary Kay Mortimer (MSN '84, PhD '03)

Anne Kisak (BSN '89, MSN '10)

Mary Hatam (BSN '03, MSN '04)



Jeffrey J. Alvarez Jr.



Helen Burns



Chi Ching Vivian Hui (right) with Dean Kasper



Diane Hupp

### FACULTY, ALUMNI RECEIVE PITTSBURGH MAGAZINE'S EXCELLENCE IN NURSING AWARDS

In December, Pittsburgh Magazine announced its 2023 Excellence in Nursing honorees, and among the list of the region's most distinguished nursing professionals are University of Pittsburgh School of Nursing faculty members and alumni.

**Heeyoung Lee**, PhD, FAAN, associate professor and chair of the Department of Health and Community Systems, received the Excellence in Nursing - Advanced Practitioner award.

**Teresa Hagan Thomas** (BSN '10, PhD '15), associate professor, received the Excellence in Nursing - Researcher award.

Young Ji Lee, PhD, associate professor of nursing and medicine and vice chair of administration in the Department of Health and Community Systems, received an honorable mention in the Researcher category.

The following Pitt Nursing alumni were honored:

Wendy Angus: honorable mention, Community/Ambulatory

Mary Kay Gill (BSN '81, MSN '85): honorable mention, Academic

Rebecca Kronk (MSN '99): Excellence in Nursing - Academic

Jamie Malone (BSN '12) honorable mention, Clinical Instructor/Educator

Carol Miller (BSN '86): honorable mention, Community/ Ambulatory

Sandra Rader, honorary alumni: Excellence in Nursing - Leadership/Executive

Jessica Sarno (MSN '13): honorable mention, Advanced Practitioner

Marcy Zoller (MSN '06): honorable mention, Advanced Practitioner



### FACULTY APPOINTMENTS AND AWARDS

Salah Al-Zaiti, PhD, FAHA, was promoted to professor.

**Marianne Allen**, DrNP, received the University of Pittsburgh School of Nursing Distinguished Clinical Scholar Award.

**Jill Demirci**, PhD, was promoted to associate professor with tenure.

Julius Kitutu, PhD, was selected to serve on the Leadership Succession Committee of the American Academy of Colleges of Nursing's Diversity, Equity, and Inclusion Leadership Network.

**Faith Luyster**, PhD, was awarded tenure and promoted to rank of associate professor.

Margaret Rosenzweig, PhD, FAAN, was appointed as a scholar in residence by the Oncology Nursing Society.

**Teresa Hagan Thomas**, PhD, was promoted to associate professor with tenure.

**Cecelia Yates**, PhD, was the recipient of the American Society for Investigative Pathology's Marilyn G. Farquhar Early Career Award for Exceptional Achievement in the Advancement of Women in Experimental Pathology.

### **FACULTY GRANTS**

Betty Braxter, PhD, CNM, RN, FAAN; Rose Constantino, PhD, JD, RN, FAAN, FACFE and Willa Doswell, PhD, RN, FAAN University of Pittsburgh Momentum Funds Enhancing Resilience and Healthspan Through Listening Sessions with Community Engagement Centers

Richard Henker, PhD, CRNA, FAAN, FAANA University of Pittsburgh University Center for International Studies, Asian Studies Center Improving Assessment and Management of Postoperative Pain at Lao Friends Hospital for Children through Implementing a Quality Improvement Program Julius Kitutu, PhD, MSc Health Resources and Services Administration

Nurse Faculty Loan Program

#### Jennifer Lingler, PhD, MA, CRNP, FAAN National Institutes of Health / National Institute on Aging

Patient and Family Member Reactions to Biomarker-informed ADRD Diagnoses

#### Jonna Morris, PhD, RN American Academy of Sleep Medicine Foundation

A Formalized Patient-to-Patient Peer Support Program to Promote CPAP Adherence in Women

#### Marci Nilsen, PhD, RN, FAAN

National Institutes of Health/National Cancer Institute Method to Extend Research in Time (MERIT) (R37)

Radiation-Induced Fibrosis and Co-occurring Adverse Treatment-Related Effects in Head and Neck Cancer Survivors

John O'Donnell, DrPH, CRNA, FAAN Health Resources and Services Administration

Nurse Anesthetist Traineeships

Joshua Porat-Dahlerbruch, PhD, RN Sigma

Developing a Nurse Practitioner Integration Model

#### Daniel Wilkenfeld, PhD

University of Pittsburgh School of Nursing Center for the Scholarship of Teaching and Learning in Education

Assessing Videos as an Alternative to Writing: Outflanking Generative Al

### STUDENT AWARDS AND ACHIEVEMENTS

Nurse anesthesia student **Alexis Cameron** was the 2023 recipient of the Mary DePaolis-Lutzo Scholarship from Pennsylvania Association of Nurse Anesthetists.

PhD student **Alice Cline** received the 2023 PhD Scholarship from the Nightingale Awards of Pennsylvania.

BSN student **Benjamin Diamond** received the Assunta Paolillo Memorial Scholarship from the Foundation of the National Student Nurses' Association.

BSN student **Hannah Kaplan** was one of 15 undergraduate students nationally to receive an American Psychiatric Nurses Association Board of Directors Scholarship.

PhD student **Karina Kraevsky-Phillips** received a grant from the ZOLL Foundation for "Data-driven Modeling of Pathological Mechanisms of Dyspnea in Heart Failure."

PhD student **Lauren Taylor Narbey** received the American College of Nurse-Midwives' Dianne S. Moore Midwifery Research Scholarship.

MSN-DNP nurse practitioner student **Katty Tseng** was the 2023 recipient of the University of Pittsburgh School of Nursing's Ruth Perkins Kuehn Research Award.

PhD student **Kai-Lin You** received a grant through Sigma/Council for the Advancement of Nursing Science.



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