Medical Simulations Crafted by Smith—Just Might Have You in Stitches

Cara Smith might be the most ingenious member of the nursing department. Thinking there had to be a better way to teach suturing to graduate nurse practitioner students and suture removal to undergrad BSNs, she went to Hollywood for the answer.

Knowing that practicing suturing on chicken legs wasn't the most sanitary, economical, ecologically sound or realistic method to teach stitches, Smith, Gonzaga's simulations operation specialist, found a company that crafts things for the movie industry. She found a section on its website for medical simulation.

Smith watched an online video that taught her how to make her own suture pads for about a third of the cost of buying premade pads. "It was a matter of trial and error," Smith says. "I made several samples. David Peck, the nurse practitioner faculty who teaches suturing to the graduate students, tried out several of my samples to see which combination worked the best. These are much more realistic than suturing chicken legs."

The Smith-made multilayer suture pad includes:

- Dermis, an outside layer of skin that protects tissues and cushions the body from stress and strain. Smith makes it from pressure bandages and tints it with silicone paint to match a variety of skin colors to be more realistic.
- Fat layer rests under the dermis and Smith makes it with a different viscosity of silicone.
- Under that is the bottom layer, simulating muscle tissue, a third level of viscosity.

"I took things we had in house and created a more realistic simulation of skin than what we got with the chicken legs, and there's no mess or waste. I have perfected it and ordered a mold. Now I can make them much more efficiently," she says.

Susan Edwards, director of nursing's Simulation Labs, is like a proud mother when boasting about some of the medical simulations Smith has developed.

"Cara also made an infection pad, complete with a pus pocket that oozes upon pressure, made with lotion and fake urine, which Smith also concocts," Edwards says.

"She is adept at making bruises and chicken pox with bubble wrap, makeup and clear dressings, and simulating edema in the manikins' legs with mattress-top memory foam."

In addition to these new simulations, Smith has taken what has been used for other simulations and made them better, Edwards says.

A fingertip fits over the finger of a simulation manikin and is filled with fake blood. Students can prick the manikin's finger and get true blood-sugar readings.

She makes urine samples of different colors, each representing specific characteristics of urine color in the body.

"Cara recently made a fake stool out of peanut butter, using iodine to replicate blood in the stool. With the fake stools, nursing students learn how to properly clean a patient who has had an unexpected bowel movement," Edwards explains.

Smith can represent a hemorrhage with cherry pie filling that simulates blood clots. "It is so important students have a realistic simulation of what they are being taught," Edwards says.

Smith is always thinking outside the box. Edwards, who also is director of the Bachelor of Nursing in Science program, has taught at Gonzaga 10 years. Smith was a longtime radiology technician before joining Gonzaga two years ago.

"All of these ideas of moulage and the ingenuity that Susan and the nurse practitioner faculty have implemented for years has provided me with a great building block," Smith says. "I have embraced new ideas and brought other options to the table as I learn more about techniques that add realism to our simulations and lab practices."

"Working together we have always tried to raise the bar for the benefit of our students," Edward adds.

And no doubt, have some fun with their medical arts and crafts.
Making Their Point

Gonzaga debaters senior Molly Martin, left, and junior Avalyn Renee, right, won the prestigious Lafayette Debates April 22-23 in Washington, D.C., and landed the opportunity for the campus to display for a year the traveling trophy: a 235-year-old map traced to the American Revolution.

Debaters from the 13 invited schools scrutinized the topic: “The New Urban Agenda should be a sustainable development priority.” As champions, Martin and Renee are invited to report to the president of the United Nations’ Governing Council for the New Urban Agenda on the arguments and research presented during their debates. Debate Coach Glen Frappier and assistant coach Joe Skoog (back) hold the award.
THE NEW FRONTIER
Environmental Chamber is Ticket to Vast New Possibilities in Teaching and Research

The Environmental Physiology Lab and environmental chamber in the UW School of Medicine-Gonzaga Health Partnership building is the next step in the new frontier in Human Physiology instruction and research at Gonzaga, so says HP Professor and Chair David Thorp.

In fact, he and his comrades are simply giddy to get started. They move out of “The Shed,” 1110 N. Pearl St., and into their new space June 27-28.

“This is an entirely new capacity for us,” Thorp says. “This chamber will allow us to manipulate the environment and measure human function in a variety of unique conditions. We’ll be able to manipulate temperature between 0°F to 111°F, relative humidity between 30% to 95%, and simulate altitude from sea level to 18,000 feet, which is somewhere between the peaks at Mount Rainier and Denali.”

“The mechanisms the body uses to accommodate these changing conditions are pretty fascinating and this chamber has the potential to open up many fertile avenues for new research questions and teaching opportunities,” says Thorp. “To be able to have our students learn about these physiological functions by experiencing them and measuring them in humans in real-time as opposed to just reading about them is amazing. This will be a unique experience for our majors – very few undergraduate physiology programs can offer this kind of opportunity.”

An example he provides is helping someone in Seattle train to run a race in Denver. “How can we help them adapt to running at a mile high rather than at sea level?”

This space is designed primarily as a research space. That said, the use of the chamber will be incorporated into the curriculum in GU’s Exercise Physiology and Environmental Physiology courses. “This is common to our approach – we use research experiences heavily in our teaching,” Thorp says.

In addition to space, the new quarters include many new pieces of scientific equipment. Ultrasound will allow students to measure blood flow and near-infrared spectroscopy provides measurements of oxygenation of tissue. “These techniques will allow us to directly measure aspects of exercise we’ve previously not been able to,” Thorp says. “To expose our students to these techniques and to allow them to learn human function in this way is really exciting.”

This space also provides "nearly endless" assignments and research projects. Just some examples: “We can simulate higher altitude and measure how exercise capacity changes,” Thorp says. “This will be a fun experiment to develop for our Exercise Physiology course. I get asked questions about this every year. Now we’ll be able to demonstrate it. We could simulate training at altitude and show how sea-level performance changes. We could simulate the effects of hard work in hot, dry environments, or in very cold environments and see how task performance and physiological control changes.”

In addition to testing these effects on the human function, students can also test the effects of different garments on improving human function in these environments. A great example is simulating hard work in hot, dry environments to test various clothing for wildland firefighters and determine how different protective gear might affect their ability to work.

“We also continue to add new lab tools to augment our student experience. The right tools with adequate space will really change what we can do with our students,” he adds.

In April students got their first look at the Environmental Physiology Lab and environmental chamber in the UWSOM-Gonzaga Health Partnership building.
Kardong Bridge Getting Makeover; Will Make Pedestrians, Other Trail Users Safer

Decades ago, locomotives powered their loads across the scabland just south of campus, bringing goods to our fledgling town on the banks of the Spokane River. Expo ’74 saw the end of rail traffic close to our borders, and a couple of decades later, what was a railroad trestle became a pedestrian bridge as part of the Centennial Trail.

Named for Bloomsday founder Don Kardong, the bridge just south of Gonzaga’s Luger Soccer Field is now in need of major renovation. Construction on the bridge across the Spokane River will begin by the end of May and City Park Planning and Development Manager Nick Hamad hopes construction can be substantially completed by Thanksgiving, although the work deadline isn’t until next April.

The bridge will be closed during the construction period. The north offshoot of the Centennial Trail at the east end of the bridge, which runs west along Gonzaga’s south rim of campus, remains open for walkers, runners, roller bladers, scooter enthusiasts and cyclists coming from the east. Those approaching the bridge from the west are directed to Spokane Falls Boulevard and then to Cincinnati to reconnect to the trail at Cincinnati.

In the early 1990s, Spokane crews removed the rails and made the trestle pedestrian friendly. The new project will strip all the wood from the bridge deck and get down to two large railroad beams mounted on concrete bases. A much safer, flat concrete deck will be added, along with higher but less visually obstructive railings to expose better views of the river. The structure will be lighted and handicapped accessible.

Gonzaga has agreed to support the project, allowing for construction of a large overlook on the north side of the structure, with seating and interpretive signage espousing Gonzaga’s history.

“A big part of our planning is to ensure there is nothing that will rot,” Hamad said. “The surface itself should last at least for 50 years.”

The blue trusses (or triangles) that rise above the current bridge will be eliminated.

Summer Renovations Planned

With summer close at hand and the campus census significantly reduced after commencement, Director of Plant and Construction Services Ken Sammons has a sizable laundry list of campus renovations ready to tackle.

- Construction on the health partnership building should be complete by end of June, with Human Physiology moving in June 27-28.
- Replacement of remaining portions of the original steam heating system on College Hall, third floor, west wing. The new system adds central air conditioning capability like is used in most other portions of College Hall.
- Final upgrade of fire alarm systems to the most current version.
- Foley elevator upgrades of operating equipment.
- Replacement roofs on several buildings, including portions of Herak, Hughes, Law, Robinson and Rudolf pool.
- Multiple flooring and dorm/apartment furniture replacement projects.
- Limited work in the Psychology Lab/College Hall, including carpeting and new lab furniture.
- Renovation of the Marketplace to incorporate Handcrafted sandwich shop and opening of a full-service Qdoba in the current Handcrafted location in Hemmingson.
- A solar array added to the roof at 527 E. Sharp, just east of the Sustainability House.
- Don Kardong Bridge renovation.
Longtime Dean and Interim Provost Ken Anderson, Kevin McQuilkin, Terry Coombes, Callie Johnson, Xochitl Velazquez, Kevin Daniels and Acting Dean Molly Pepper.

Four alumni and a retired staff member received awards during April’s Ignatian Gala celebrating the centennial of the School of Business Administration.

Honored were:
- **Callie Johnson**, ’15, Recent Alumni Award
- **Xochitl Velazquez**, ’12, ’13 M.B.A., Service to the Community Award
- **Kevin McQuilkin**, ’83, Service to Gonzaga Award
- **Kevin Daniels**, ’79, Professional Achievement Award
- **Terry Coombes**, Faculty-Staff Award

Johnson, class of 2015, is owner of Made With Love Bakery in Spokane.

“On top of her full class schedule, multiple part-time jobs, studying at Gonzaga in Florence, and staying involved in the campus community, Callie was using the tools we were learning in our business classes to map out plans for her bakery’s future,” her nominator wrote.

“Since then, Callie has continued to serve her community and grow and support her team.”

Velazquez, who graduated in 2012 and completed her MBA at Gonzaga a year later, lives in Wenatchee, Washington.

“Upon her graduation and after working successfully for a number of commercial organizations, Xochitl chose to serve her community as an assistant director of the Washington Apple Educational Foundation – the same foundation that supported her through her time at Gonzaga,” her nominator wrote.

“She exemplifies the leaders in service who are central to Gonzaga’s mission. In 2021, she was named among the 30 under 35 outstanding young business leaders of the Wenatchee Valley community.”

McQuilkin, who graduated in 1983 and has returned to Spokane and GU’s campus, was managing director of Mergers and Acquisitions for Wells Fargo Securities after serving in similar positions at both Deutsche Bank Securities and JP Morgan Securities.

“A graduate who made it big back east, Kevin has served as a trustee for over a decade, was instrumental in making the New York Trek a success, and is now the executive in residence at GU,” his nominator wrote.

“Kevin McQuilkin is known for his amazing tenacity and vision in construction of Seattle’s buildings and skyline,” wrote his nominator.

“With a passion for looking forward while preserving the past, he is nationally respected for focus on adaptive reuse projects that have saved some of Seattle’s most iconic and historic buildings such as The Sanctuary, Seattle Plumbing Building (Gridiron Condominiums), Sears Roebuck (Starbucks Center), Union Station, Frye Art Museum, Merrill Place, and St. Edward Seminary in Kenmore (The Lodge at St. Edward Park).”

Daniels, class of 1979, led Daniels Real Estate, which won three National Preservation Awards as well as many local and state awards.

“Kevin Daniels is known for his amazing tenacity and vision in construction of Seattle’s buildings and skyline,” wrote his nominator.

“With a passion for looking forward while preserving the past, he is nationally respected for focus on adaptive reuse projects that have saved some of Seattle’s most iconic and historic buildings such as The Sanctuary, Seattle Plumbing Building (Gridiron Condominiums), Sears Roebuck (Starbucks Center), Union Station, Frye Art Museum, Merrill Place, and St. Edward Seminary in Kenmore (The Lodge at St. Edward Park).”

Coombes retired from the business school as assistant to the dean in 2004 but was asked to return in 2008. She stayed for another six years, and an endowed scholarship was established in her name. She received multiple nominations.

“Terry embodies and exemplifies what Gonzaga stands for – serving for and with others,” one said. “Terry has been an inspiration to so many of us both on a personal and professional level. She served with passion whether she was working in the dean’s office or as an adviser. I am grateful to Terry. The world is a better place because of her.”

“The man lives, eats and breathes Gonzaga. Everything he does, he has the University’s best interest in mind.”
A sociologist by education, Gonzaga health sciences librarian Candise Branum found herself going a different direction with her career. For 11 years she served as library director at Oregon College of Oriental Medicine (acupuncture and Chinese Medicine) in Portland near her longtime home before accepting a job here at Foley Center.

Her position was part of a grant proposal drafted last year by Jen Towers and Gena Hoxha of the nursing department and submitted by Foley Associate Dean Brad Matthies to Washington State Libraries. The grant called for an outreach program to enhance nutrition literacy to people living in the Logan Neighborhood.

Branum arrived on campus in November, ready to roll up her sleeves and see how she could impact the project.

Following discussions with Towers and Hoxha, Branum worked with Logan Elementary School Principal Jessica Vigil and Principal Assistant Penny Capko to develop a plan to teach basic health literacy to kindergartners through sixth-graders, supplementing what Logan teachers were already doing.

“The most important thing I did before I began teaching at Logan was to make sure the curriculum we developed was meeting each teacher’s needs,” Branum says.

Logan is a Title 1 school, and every student receives a free lunch.

“Our goal is to give students a basic understanding of nutrition and how food affects their bodies, and what that looks like. With kindergartners it’s ‘What is fruit?’ and how it gives them energy. The lessons get more involved with higher grade levels,” Branum explains.

She brought fruit into the classroom that perhaps many of the students had not seen at home. “Some kids thought a fig was gross. But the next group said it was pretty good. What I found is that one child’s opinion feeds off another. If one student thought it was good, then the next student was likely to think it was OK,” Branum explains. The students didn’t seem too sure about kiwi and mangoes. Both were messy. But watermelon was a favorite, perhaps because of greater familiarity.

Branum found one of the benefits of working in this program is seeing Gonzaga’s Center for Community Engagement at work on many levels. “I’m amazed at all the work they are doing, both in the schools and in the community.”

In May, Branum will matriculate to fifth- and sixth-graders. “We will have them make a campus visit, and we’ll do our health literacy sessions here at GU. They’ll get a tour of campus and eat a nutritional lunch in the COG,” she says. “We want to introduce these students to the college and help them to see Gonzaga both as a resource and a part of their community.”

This is an interesting group, fifth and sixth graders, Branum continues. School administrators find that many students in this age group, but particularly girls, are not eating their lunches but rather dumping them in the trash.

“At this age, kids are starting to think about and critique their bodies, so we are investigating how we can help support Logan teachers and administrators through this grant. This work has to be done thoughtfully; when talking about nutrition and health with children, I really want to ensure we are not doing any harm,” Branum says.

This grant expires the end of June, and Branum will continue working with the nursing and human physiology departments doing some teaching, meeting one-on-one with students, and serving as a resource in every section of Nursing 563, which offers multiple sections every semester, including summer.

In any case, she believes she has found her calling at Gonzaga, where she sees the University’s mission lived out every day.
With COVID restrictions lifting, Civil Engineering Chair and Professor Rhonda Young is finalizing plans to take 18 students majoring in civil engineering and engineering management to the Netherlands for three weeks to study sustainable urban infrastructure. She took a similar group of students there in 2019 and the students gained a significant education in urban planning.

"Students will be looking at transportation system design, water management, water and wastewater treatment, food production, and coastal protection infrastructure," Young says. Students will meet with engineers and planners, as well as conduct field experiments to understand the principles and approaches the Dutch engineers use for designing and operating infrastructure.

"The Netherlands is known for being on the forefront of sustainability and climate adaptation," Young says. "Delft, specifically, was picked as a location near many of the sites of interest (agricultural district, rivers and coastal protection, 10 minutes by train to The Hague and Rotterdam), as well as being the home of Delft University of Technology (TU Delft), one of the top 10 engineering universities in the world and a major innovator in the development of sustainable engineering practices and products."

The work the students do is being linked to the City of Spokane’s Sustainability Action Plan and students will report back to City of Spokane decision-makers about what they learn. Students will focus not just on the technical aspects of sustainable infrastructure but will consider the social and political differences between Netherlands and the United States, as well.

The crew takes off May 11 and returns to the U.S. June 1.

HOLOCAUST REVISITED

Opportunities for Faculty, Staff, Students to Examine Americans’ Response

Foley Center’s Cowles Rare Books Library will host “Americans and the Holocaust,” a traveling exhibition from the U.S. Holocaust Memorial Museum, this fall. Open Aug. 23 through Oct. 7, the exhibition examines the motives, pressures and fears that shaped Americans’ responses to Nazism, war and genocide in Europe during the 1930s and ‘40s. This exhibit was originally scheduled to showcase the Holocaust on campus in March 2020, but COVID-19 put a halt to that initial tour.

As noted by Paul Bracke, dean of Foley Library, "The exhibition will challenge people to not only ask ‘What would I have done?’ but also, ‘What will I do?’" Faculty members are encouraged to consider how viewing the exhibition may enhance courses in the fall. Material based on extensive new research addresses important themes in U.S. history – including the Great Depression, isolationism, xenophobia, racism and antisemitism – that influenced decisions made by the U.S. government, the news media, organizations and individuals as they responded to Nazism. The exhibition challenges commonly held assumptions that Americans knew little and did nothing about the Nazi persecution and murder of Jews as the Holocaust unfolded.

Foley Library is one of 50 U.S. libraries selected to host Americans and the Holocaust. Walk-in exhibit hours at Foley are Monday–Friday, 3-8 p.m.; Saturday and Sunday, 1-5 p.m., and by appointment for tours. Find additional details on at gonzaga.edu/ http://www.gonzaga.edu/holocaustexhibit.
DEI Strategic Planning Update

This semester, the Office of Diversity, Equity & Inclusion hosted town halls for faculty, staff and students to review and discuss the Inclusive Excellence Strategic Plan.

That plan represents the next phase in Gonzaga’s pursuit of being recognized as a distinguished public institution that advances equitable access, inclusive learning, and engagement in a diverse community. The goal of this plan builds upon the investments and intentions made by many members of the University to create positive change. The five objectives are:

- Recruitment, retention and success
- Campus climate and intergroup relationships
- Teaching, scholarship and service
- Education, training and development
- Assessment, reporting and accountability

A complete strategic plan is being formalized this summer and will be available in print and digitally as the fall semester begins.

Grant kicks off Spokane Beat the Heat program

Gonzaga Center for Climate, Society and the Environment has launched Spokane Beat the Heat, a multiyear program aiming to identify, assess and implement local strategies to mitigate the threat of urban heat.

Helping to kickstart the longer-term partnership effort is funding from the National Oceanic and Atmospheric Administration (NOAA) to map “urban heat islands” this summer and increase residents’ safety during extreme heat events.

NOTEWORTHY

NEW HIRES

Anna Belov, HR data & systems coordinator, HR; Brittany Van Blaricom, program asst III, Admissions; Chelsea Kinney, receptionist, Health & Counseling; Christopher Michaelson, asst men’s soccer coach, Athletics; Clara Buck, marketing & public relations asst, Arts & Sciences; George Montgomery, asst director, Resolution Center for Conduct/Conflict; Hayley Roth, IMS administrator/data analyst, Instructional Design & Delivery; Ilatei Bellefeuille, program asst II, Education; Jamie Aitken, sr director of strategic communications, Marketing & Communications; Jodi Brant, admissions application specialist, Graduate Enrollment Management; Katya Collins, faculty asst, Law; Krystal Vergine Frias, program asst III, Arts & Sciences; LeAnn Bjorken, IT communications specialist, ITS; Rosa Velasco Quevedo, admissions coordinator, Admission; Seth Johnson, facility operations asst director, Athletics; Theresa Giordanella, program asst III, Arts & Sciences; Todd Mosebar, program asst III, Arts and Sciences

GOODBYES

Amanda Braley, sr biology lab coordinator, Arts & Sciences; Ashley Martin, administrative asst III, President’s Office; Cathy Carter, project management specialist, Enrollment Management; Cheryl Johnston, project asst, HR; Connie Hayden, custodian, Plant; Cory Kittrell, program asst III, Arts & Sciences; Betsy Miranda, program asst I, Arts and Sciences; Elizabeth Bech, mental health counselor III, Health & Counseling; James Coombes, Infrastructure admin III, ITS; John Courtney, communications officer, Security; Kaylee Krout, academic adviser, Student Academic Success; Kelley Marcantel, asst director budget, Provost; Mitchell Andrews, IT technician I, ITS; Nayeli Sargent, program asst III, Admission; Nadiamez Rogers, financial aid counselor, Student Financial Services; RyAnne Jones, infrastructure engineer II, ITS; Tommy Brown, athletic turf manager, Athletics

ANNIVERSARIES:

40 Tim Hatcher, groundskeeper supervisor, Plant
15 Jaime Larson, asst controller, Controller
10 Denise Ogorek, lecturer, Nursing
5 Wren Bailey, custodial lead, Plant

Around Campus

- Kristine Hoover, director of Gonzaga’s Center for the Study of Hate, received a $7,960 grant by Kootenai County Task Force on Race Relations to help combat “a growing regional and national movement to attack and eliminate curricula and the teaching of basic democratic principles in K-12 and higher education.”
- The Center for the Study of Hate honored Kate Vanskike, senior director of content strategy and publications in Marketing & Communications, with the $1,000 Eva Lassman Award for research on “Jesuit Missions Among Interior Salish Tribes as the Origin Story of Gonzaga University.” Vanskike is completing a Master of Arts degree in Communication and Leadership.
- The President’s Office is hosting faculty and staff at an Employee Celebration, May 11, 3:30-6 p.m. at the Davenport Grand Hotel.
- Neil Berg’s “50 Years of Rock and Roll” is May 12, 7:30 p.m., Woldson Performing Arts Center. Tickets are $29. More information at mwpa-neil.berg.
- The Happiest of Hours is for faculty and staff, May 18, 4-6 p.m. on the Woldson Performing Arts Center patio. Snacks, wine, beer and sparkling water provided. Hosted by Mission & Ministry, Sustainability, Human Resources Organizational Development and Plant.
- Pound is a rock-out workout, led by Jenna Parisi, for employees, May 23, noon-1 p.m., Cataldo Globe Room. It combines music, conditioning and faux drumming. Sign-up here.
- The Gonzaga Bloomsday Corporate Cup team Law & Order composed of Lisa Bradley, Jackie Van Allen, Bailey Wootton, Shannon Overbay and Rebecca Hoyt finished third overall among 197 teams, and first in the women’s division. GU’s other teams were You Zig We Zag, Nacho Brigade and Speedy Gone Zaga.

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Spokane is one of 14 U.S. cities selected to participate in the 2022 Urban Heat Island Mapping Campaign supported by the National Integrated Heat Health Information System (NIHHIS), NOAA’s Climate Program Office and CAPA Strategies LLC.

The effort to join the Urban Heat Island Mapping program is a result of fatalities during last summer’s lingering “heat dome” over the Inland Northwest.

POSITION CHANGES/PROMOTIONS

Cherie Christ, director, IT Project Management; Claire Le Poullion, international student adviser, Global Engagement; Joan Sarles, asst dean undergrad affairs, Engineering & Applied Sciences; Katherine Moog, development coordinator, University Advancement; Miranda Lewis, development coordinator, Education