




Washington University in St. Louis

SCHOOL OF MEDICINE

Occupational Therapy

Spring 2024

O.T. Link



**School-Based
Scholars Program**



Service day

The Cognitive and Occupational Performance Laboratory, led by Erin Foster, PhD, OTD, OTR/L (top left), participated in a service day at St. Louis Area Foodbank on Jan. 17. They built a stronger connection within their team and strengthened ties with the St. Louis community. Also pictured are Tasha Doty, MA (top right), Kandace Davis, MS, CCC-SLP (bottom left), and Dominique Woodhouse, COTA/L (bottom right).

O.T. Link Contents

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Associate Dean and Director of Occupational Therapy, Elias Michael
Professor of Occupational Therapy and Professor of Neurology
 Lisa Tabor Connor, PhD, MSOT, OTR/L

Managing Editor and Designer
 Michele Berhorst

Contributors
 Michele Berhorst
 Sarah Brzeszkiewicz, MSOT, OTR/L
 Jessie Bricker, OTD, OTR/L
 Megen Devine, MA
 Lorna Kahn, BSPT, CHT

Stephen Lau, PhD
 Ryan Risley, MPM
 Stephanie Stemmler

Photography
 Michele Berhorst
 Sarah Brzeszkiewicz, MSOT, OTR/L
 Whitney Curtis/Washington University
 Mark Gilliland
 Lorna Kahn, BSPT, CHT
 Shutterstock

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Washington University in St. Louis
 SCHOOL OF MEDICINE
 Occupational Therapy

From the Director



The new year began with a celebration of the career and accomplishments of Christine Berg, PhD, OTR/L, FAOTA, who officially retired from Washington University on Jan. 2 (page 14). For the past 36 years, Christine has served the Program as a leader, educator, mentor, advisor, advocate, colleague and friend to all. We wish her the very best as she embarks on her next chapter – retirement! She is already missed tremendously.

In the Fall 2023 issue, we announced that the Program in Occupational Therapy had received a five-year, \$1.1 million grant from the U.S. Department of Education's Special Education – Personnel Development to Improve Services and Results for Children with Disabilities Program to fund the School-Based Scholars Program (page 4). Jessie Bricker, OTD, OTR/L, our academic fieldwork and capstone coordinator, is the principal investigator and project director of the Scholars Program. The program is designed to improve the recruitment and retention of occupational therapy (OT) students from diverse backgrounds while increasing competencies to serve children with high-intensity needs in school-based settings.

We were excited to welcome back former PhD student Stephen Lau, PhD, (page 8), to our faculty last April. In his new Sleep, Mood and Cognition Laboratory, Stephen is looking for evidence-based behavioral interventions that improve stroke patients' participation in daily living activities by studying the effects of sleep disturbances and mood impairment on rehabilitative outcomes. Stephen is now working on an R03 grant application to fund sleep research and plans to use mobile health technologies such as actigraphy, which involves a wearable monitor to track rest and activity rhythms.

If you speak to any of our Milliken Hand Rehabilitation Center therapists, they will tell you how incredibly honored they are to work with Lorna Kahn, BSPT, CHT (page 10). During her 40-year career, Lorna has become a highly respected, renowned hand therapist and subject matter expert in nerve transfer rehabilitation. What makes Lorna stand out are her professional relationships with prestigious plastic surgeons who consider her a vital part of their care team. She is an inspiration to all and represents the best of the hand therapy profession.

Artificial intelligence (AI) is everywhere, and alumna Sarah Brzeszkiewicz, MSOT '14, OTR/L (page 12), has found a new space to practice OT and feel energized again. Sarah is a clinical advisor at Sensi.AI, a tech startup company that developed the world's first in-home virtual care technology, which uses audio AI to assist care agencies in providing clients with 24/7 support. Her story encourages us to think beyond traditional practice areas and look for opportunities to optimize client care using new tech tools.

We had a wonderful opportunity to partner with the Spartan Light Metals Product Makerspace and the Department of Biomedical Engineering with support from Cecropia Strong, a nonprofit that aids persons with disabilities, in the inaugural Assistive Tech Make-A-Thon (page 16). We are so proud of our students and thank faculty member Marit Watson, OTD, OTR/L, PMH-C, and recent alumna Hailey Furio, MSOT '23, for co-organizing the event with our engineering colleagues.

Be sure to stop by and see us at Booth #1142 at the American Occupational Therapy Association (AOTA) 2024 Annual Conference & Expo in Orlando (page 13) March 21-23. Get caught up on all the latest Program news with Mandy Mack, OTD, OTR/L, CLC, and other familiar faces at our Alumni Meet Up on Friday, March 22 – conference attendance is not required to have a drink with us! We look forward to seeing you soon.

Regards,

A handwritten signature in black ink that reads "Lisa T. Connor". The signature is fluid and cursive.

Lisa Tabor Connor, PhD, MSOT, OTR/L

Associate Dean and Director of Occupational Therapy

Elias Michael Professor of Occupational Therapy and Professor of Neurology

lconnor@wustl.edu

Promotions

At the Washington University in St. Louis Board of Trustees December meeting, the following faculty member was promoted with tenure effective Jan. 1, 2024.

Kerri Morgan, PhD, OTR/L, ATP, was promoted to associate professor of occupational therapy and neurology. Her clinical and research career thus far has been to improve the participation of people with mobility disabilities in their everyday life activities after discharge from rehabilitation.



Kerri Morgan

At the Washington University in St. Louis Executive Faculty meeting on Nov. 1, the following faculty were promoted effective Jan. 1, 2024.

Jessie Bricker, OTD, OTR/L, was promoted to assistant professor of occupational therapy and neurology. Her clinical interests include pediatric, adolescent and young adult populations with neurodevelopmental and mental health disorders.



Jessie Bricker

Sue Tucker, OTD, OTR/L, ATP, was promoted to assistant professor of occupational therapy and neurology. Her research interests in clinical outcomes are related to wheeled mobility devices, exercise interventions for people with mobility limitations, wheelchair propulsion training interventions for manual wheelchair users, and adaptive sports.



Sue Tucker

Carla Walker, OTD, OTR/L, ATP, was promoted to assistant professor of occupational therapy and medicine. Her research interests include clinical outcomes in parenting self-management, spinal cord injury and disease, community mobility and accessible exercise.



Carla Walker

Stacy West-Bruce, OTD, MSW, OTR/L, was promoted to assistant professor of occupational therapy and medicine. Her research interests include interventions aimed at supporting healthy and supportive aging in place strategies for older adults. She is also interested in occupational access based on factors such as race, socioeconomic status and location.



Stacy West-Bruce

Dean's Impact Award

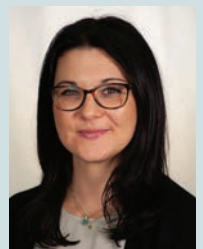
Erin Foster, PhD, OTD, OTR/L, will receive the 2024 Dean's Impact Award. The award recognizes faculty members who have demonstrated enduring commitment to advancing the careers of others through exceptional mentorship and/or sponsorship. Foster has shown exceptional dedication to developing students in her 20+ years at Washington University. Foster will be recognized at the award ceremony on April 30 at the Missouri Botanical Garden.



Erin Foster

AOTA and AOTF Awards

Congratulations to **Catherine Hoyt, PhD, OTD, OTR/L,** and **Jaclyn Schwartz, PhD, OTR/L,** who will receive the American Occupational Therapy Association's (AOTA's) Roster of Fellows Award at AOTA's Inspire 2024 Annual Conference & Expo in Orlando, Fla. The Roster of Fellows recognizes occupational therapists who through their knowledge, expertise, leadership, advocacy, and/or guidance have made a significant contribution over time to the profession with a measured impact on consumers of occupational therapy services and/or members of the Association. Hoyt is being recognized as a "clinician scientist igniting equity across the profession," and Schwartz is being recognized for "advancing medication management and strengthening professional leadership."



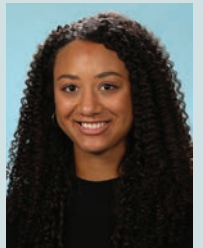
Catherine Hoyt



Jaclyn Schwartz

The Roster of Fellows Awards will be conferred during the Awards Ceremony on Saturday, March 23, from 5:15 – 6:30 p.m. EDT at the Orange County Convention Center. The ceremony is open to the public, and conference attendance is not required. For more information on the conference, please visit AOTA's conference website at inspire.aota.org.

Lindsay Spell, OTD, OTR/L, will be honored at the American Occupational Therapy Foundation's State of the Science Symposium on Friday, March 22, from 3:00 – 5:30 p.m. EDT, as the recipient of the 2024 Nancy Talbot



Lindsay Spell

Postdoctoral Research Fellowship Award. The fellowship supports postdoctoral researchers from the following racial and ethnic groups that are underrepresented in biomedical research: Black or African American, Hispanic or LatinX, American Indian or Alaska Native, Native Hawaiian and other Pacific Islander.

Want more Program news?

Stay up to date on the latest Program news by visiting our website at ot.wustl.edu or connecting with us on Facebook, Twitter/X, Instagram, LinkedIn and YouTube.



School-Based Scholars Program

By Michele Berhorst



School-based occupational therapists work with students who have a wide range of diagnoses and conditions such as Down syndrome.

It's estimated that 18.8% of occupational therapists in the United States work in the school system.¹ Yet, the need for highly trained occupational therapy (OT) practitioners who can work with school-aged children and youth with high-intensity needs, defined as barriers to learning and functioning, continues to grow. High-intensity needs may also involve complex or multiple disabilities related to physiological, emotional, cognitive and developmental factors, as well as exposure to social determinants of health and other environmental barriers that may significantly impact a child's ability to learn, develop and transition into adulthood.

To address this gap, the Program in Occupational Therapy applied for and was awarded in Sept. 2023 a five-year, \$1.1 million grant from the U.S. Department of Education's Special Education – Personnel Development to Improve Services and Results for Children with Disabilities Program. The program provides grants to institutions of higher education and private nonprofit organizations to prepare a diverse workforce in early intervention, special education and related services to be successful and skilled in serving children with disabilities.

"The grant funds the School-Based Scholars Program, designed to improve the recruitment and retention of OT students from diverse backgrounds while increasing competencies to serve children with high-intensity needs in school-based settings," says Jessie Bricker, OTD, OTR/L, principal investigator and project director. "There is promising research that shows that children learn better from people who look like them, talk like them, that they can relate to. So the question is: Can we get more diversity in our workforce so

helping a child who may have a different path through life figure out who they are right in the context of where they spend the bulk of their day – school."

Funding

The School-Based Scholars Program will train up to 20 scholars over the five-year grant period. The program can fund up to five students per year who are in the clinical occupational therapy doctorate (OTD) program. Scholars will receive funding to cover 100% of tuition costs for their third year of the OTD program, which consists of two 12-week Fieldwork II rotations and their capstone experience. In addition, each scholar will receive a \$3,680 stipend to offset expenses such as childcare, housing, living expenses or transportation at their sole discretion.

"The stipend is focused on giving the scholars customizable support, acknowledging that not all students need the same thing. We want to help the scholars transition into being self-directed in their professional paths and felt it was important to put them in the driver's seat of how they spend that money," says Bricker. "This helps reduce the likelihood that scholars will need to work outside of their full-time clinical rotations and will promote their occupational balance."

The funding aspect of the grant resonated with Bricker on a personal level. "When I was an OT student, I was struggling financially. I would have loved to have had that kind of support during my fieldwork experiences and the reduced loan obligations after graduation," she shares. "Scholars will be required to commit to practicing in a school setting for a minimum of two years after graduation. Graduates will have seven years to fulfill their service obligation. The tuition scholarship and stipend offset some of the OTD degree educational costs to make it possible to take a nine-month contract position in a school where OT services are needed."

During the first grant year, Bricker is leading a Project Team of key personnel (Lenin Grajo, PhD, OTR/L, and Steve Taff, PhD, OTR/L, FNAP, FAOTA), staff (Jenny DeBourge, MSOT, OTR/L), and other educators (Wanda Mahoney, PhD, OTR/L, Sarah Cheatham Oberle, OTD, OTR/L, and Quinn Tyminski, OTD, OTR/L, BCMH) to develop the curriculum, actively recruit for the first cohort, develop community partnerships with

By the numbers

Up to **20** scholars over **5** year grant period

Up to **5** scholars trained per year

100% of third doctoral year tuition covered

\$3,680 stipend

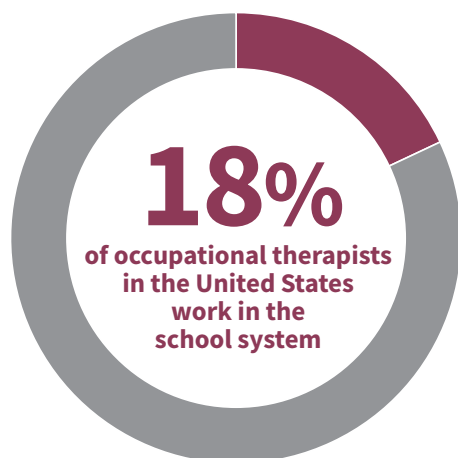
regional educational organizations and their stakeholders, and expand fieldwork placements in sites that will support scholars in their hands-on experiences.

Curriculum

Before applying for the grant, the Program in Occupational Therapy was already in the process of revising the curriculum to span the pediatrics course content over two terms instead of one. Bricker explains: "In the past, we haven't had a dedicated pediatrics course. However, as more graduates enter school-based practice, we need to focus on specific content. What do our students need to know about how the education system works? How can they look at development as a primary driving force outside of a medical model?"

There are two one-week Fieldwork Level I placements for first-year students. The first one occurs in the spring semester in a community mental health setting. The second is in the summer semester and is in a pediatric childcare setting. Scholars must participate in at least one Level I experience with local partnering agencies and schools that serve school-aged children and youth with high-intensity needs so they can get the practice experience to carry into their Fieldwork Level II.

While it has always been an option for students to take electives, the new curriculum has two specialized electives in the spring semester of year two. "This gives all students the freedom to be





The School-Based Scholars Program team (left to right): Steve Taff, PhD, OTR/L; Jenny DeBourge, MS, OTR/L; Bricker; and Lenin Grajo, PhD, OTR/L.

specific about what they want to learn. For the scholars, we are creating an elective focused on serving children and youth with high-intensity needs,” Bricker says. “It allows us to bring our clinicians into the classroom so that they close that ‘academic-to-practice gap’ and then talk about what all these concepts look like when they play out in practice settings.”

Scholars are required to do one of their two 12-week Fieldwork Level II placements in a school-based setting so that they gain that entry-level competency. Their doctoral capstone project and experience will be focused on something that relates to their success as a practitioner working with children and youth who have high-intensity needs. “It doesn’t necessarily have to be practice-focused and can be complementary. Students can complete projects in areas such as leadership, administration, research, education and program development. All of those are going to build critical capacity skills for high levels of collaboration and advocacy in a school-based setting,” Bricker says.

In addition to the existing supports available to all OT students, each scholar will be matched to a faculty or staff member who shares at least some aspect of identity and can speak to their experiences navigating academic spaces as marginalized persons. Mentors and scholars will meet monthly to discuss progress in the course of study, any barriers to success or belonging, and to

brainstorm ways in which the mentor can be of best support. Mentors will also share resources and serve as the point person to connect scholars to their larger network, creating a web of care for a wide-ranging number of situations and needs.

“I think one of the best advantages to being a scholar is that you have access to whatever you need to be successful. There will be somebody helping you to decide what’s working and what’s not working for you and problem-solve solutions. The mentors can also help identify additional responsibilities or life stressors that might be a barrier to successfully moving through the program,” Bricker says. “We have emerging data from the research our faculty members have conducted that is informing this type of ‘scaffolded support’ we want to make available to students. Students will still need to decide for themselves what resources and support they need, but we plan to structure it in such a way that it’s sort of built into what they’re doing, and the scholars feel supported throughout.”

Recruiting

The first cohort of scholars will be admitted to the program in fall 2024. Recruiting efforts are underway as Bricker has been actively communicating with the incoming 2024 class and meeting with current students who have expressed interest in the School-Based Scholars Program. She is also planning to host

information sessions and other events to answer questions and determine eligibility for the program.

“Our recruitment events include preadmissions advising and support for prospective applicants, assistance with application submissions, and a coordinated and proactive advising strategy that will focus on early identification of student support needs with regular, structured support throughout the program,” Bricker shares. “But to sustain the program long-term, we need to recruit a wide variety of diverse undergrad students, including those who may not even know about the OT profession.”

To enhance outreach efforts to these students, the Project Team will be launching a series of events open to prospective students co-sponsored by our Chapter of the Coalition of Advocates for Occupational Therapy Diversity. In addition, the team will collaborate with the Missouri Black Occupational Therapy Caucus to develop a pre-OT exploration group for undergraduate minority students that will provide resources, information and opportunities for networking for students considering a career in OT.

The Project Team will also engage in targeted outreach and recruiting visits to four-year colleges and universities in the Midwest that have been awarded funding through the TRiO Student Support Services (SSS) Program. The goal of the SSS program is to increase the persistence and graduation rates of low-income students, first-generation college students and students with disabilities. In Missouri and Illinois alone, a combined total of 24 four-year colleges and universities received SSS program funding in 2022, serving nearly 4,500 undergraduate students.²

“Partnering with TRiO programs will allow us to share information about careers in school-based OT, and the School-Based Scholars program specifically, with underrepresented students from diverse backgrounds,” Bricker says. “It also provides collaboration opportunities with college counselors and advisors to streamline advising and admissions support to ensure that prospective OT students meet prerequisite requirements

and receive support during the application process if needed.”

Engaging community

“One of the things that we’re doing in this first year is determining what knowledge, skills and experience our scholars should have when they graduate,” Bricker explains. “Part of that process is engaging with our community partners, stakeholders and fieldwork sites to form an Advisory Committee. As part of the grant application process, we received support from some of our existing regional educational organizations including Lift for Life Academy, Epworth Children and Family Services, and Family Forward, who have all agreed to partner with us.”

“We look forward to continuing our partnership with WashU OT and commit to providing fieldwork and capstone placements for OT students training to support high-needs children and youth. We are excited to continue developing this project through the Advisory Council

and look forward to welcoming a diverse group of OT students for future fieldwork and capstone experience,” wrote Deanna Allsman, Epworth Vice President of Older Youth Services. “The students and supervising faculty who have worked at both our locations have enhanced the quality of the services provided.”

Bricker is also talking with regional school districts and working with a select group of primary fieldwork educators to get feedback about what current OT practice looks like in underserved communities:

“I want input not just from current occupational therapists in those positions, but families, administrators and other related service professionals so we have a voice from all of our stakeholders to help inform our understanding of what skills our scholars need to be prepared to work with high-intensity-needs children and youth.”

“The other advantage to this widespread community engagement is that it allows scholars to gain school-based OT experience anywhere in the country where they feel they will have the

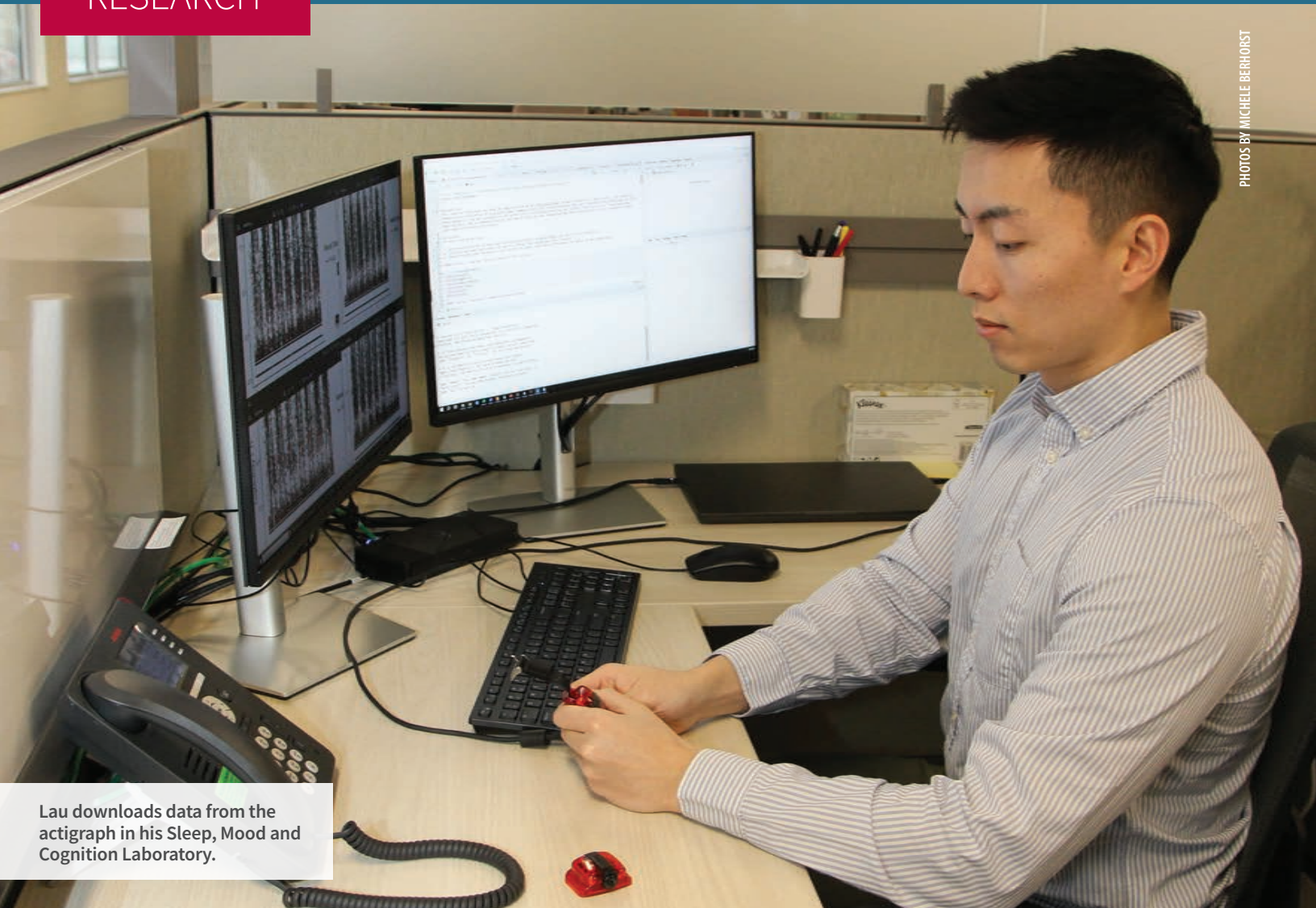
most impact,” Bricker says. “They are not isolated to just St. Louis and the surrounding areas. The first job they take for their two-year service commitment can be wherever they want it to be.”

1. American Occupational Therapy Association. (2020a). AOTA's Salary and Workforce Survey. <https://www.aota.org/career/state-of-the-profession/how-much-can-i-earn/2019-salary-workforce-survey>

2. United States Department of Education (2016). Fast facts report for the student support services program Office of Postsecondary Education, Student Services. <http://www2.ed.gov/programs/triostudsupp/resources.html>

SHUTTERSTOCK





Lau downloads data from the actigraph in his Sleep, Mood and Cognition Laboratory.

Better sleep to improve rehabilitation outcomes

by Stephanie Stemmler

Stephen Lau, PhD, wants to harness the power of sleep to improve stroke rehabilitation. Lau, the head of the Program in Occupational Therapy's new Sleep, Mood and Cognition Laboratory, is looking for evidence-based behavioral interventions that improve stroke patients' participation in daily living activities by studying the relationship between sleep disturbances and mood impairment on rehabilitative outcomes.

"Sleep apnea is one of the biggest risk factors for stroke, but stroke itself can produce widespread changes in how our brain works including changes in sleep," Lau notes. "Over 70% of stroke survivors complain about sleep disturbance. Sleep changes can take a toll and have a negative effect on rehabilitation."

In fact, Lau says that sleep problems not only can hinder recovery, they also can increase the likelihood for stroke recurrence.

"As occupational therapists, we are focused primarily on helping individuals return to independent daily activities and participation in their communities," Lau adds. "But we haven't delved that deeply

into nighttime sleep that is the foundation for our daytime behavior and mood regulation."

Lau was pursuing his degree in occupational therapy in Hong Kong when he says he had an "a-ha moment" while working with patients. "I saw firsthand that we needed to improve the assessment tools, which had been in place for a long time," he recalls. "Even though more than 90% of my peers in Hong Kong went straight into clinical or hospital practice, I wanted to advance the field. Research was a way I could do that."

His professor, Chetwyn Chan, PhD, a distinguished leader and pioneer in rehabilitative science in Hong Kong,

told Lau that as a clinician scientist in an academic institution, Lau could contribute to society, help patients, train future occupational therapists and advance the profession; in other words, it was an opportunity to make a larger contribution.

“He dared me to dream, and it was like a switch, a lightbulb moment,” Lau says. “I worked as his research assistant in the Applied Cognitive Neuroscience Laboratory after I graduated and then applied to Washington University as a doctoral candidate so that I could immerse myself in research in the United States.”

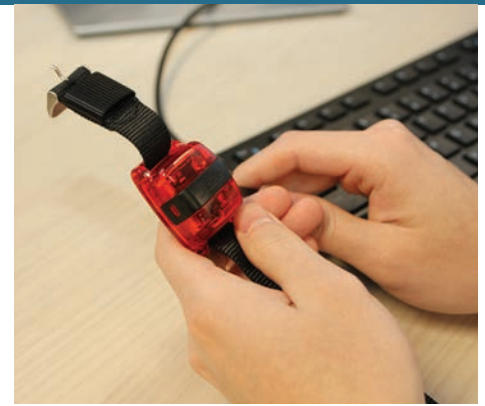
He studied here under the mentorship of former Program in Occupational Therapy director Carolyn Baum, PhD, OTR, FAOTA. As he discussed research opportunities with her, Lau again saw in the clinics what he experienced in Hong Kong. “Stroke patients were talking about not sleeping well at night and they were trying NyQuil, alcohol or just lying in bed trying to focus on sleep,” he says. “Lack of sleep had a large impact on their ability to progress through rehabilitation. I wanted to know how to change that.”

After earning his doctorate, he completed a one-year postdoctoral fellowship in sleep medicine and complex intervention in the School of Health and Rehabilitative Sciences at the University of Pittsburgh. Last year, he returned to St. Louis and Washington University to establish his own lab. “Stroke rehabilitation is a large

focus area at Washington University and it’s exciting to be here at a time when the University has just dedicated the Jeffrey T. Fort Neuroscience Research Building. It’s one of the world’s largest research centers focusing on collaborations in the neurosciences, including stroke research.”

Lau is now working on an R03 grant application to fund sleep research. The study will determine the feasibility of a stroke-specific intervention to improve poststroke insomnia around the clock by improving sleep behaviors at night and reducing sedentariness in the daytime. He plans to use mobile health technologies such as actigraphy, which involves a wearable monitor to track rest and activity rhythms. As part of his role in the Program, he also will bring in OTD and PhD students so that they learn how to design a study, submit a proposal and conduct research, and then publish data to benefit the wider occupational therapy field.

“Most sleep interventions are designed for the general population,” Lau says. “Stroke patients have additional challenges. For example, many have highly sedentary lifestyles that are independent of their functional capacity. We need to identify nighttime strategies and sleep educational tools that can motivate more active lifestyles in the daytime, which then will prompt a renewed cycle that improves sleep at night.”

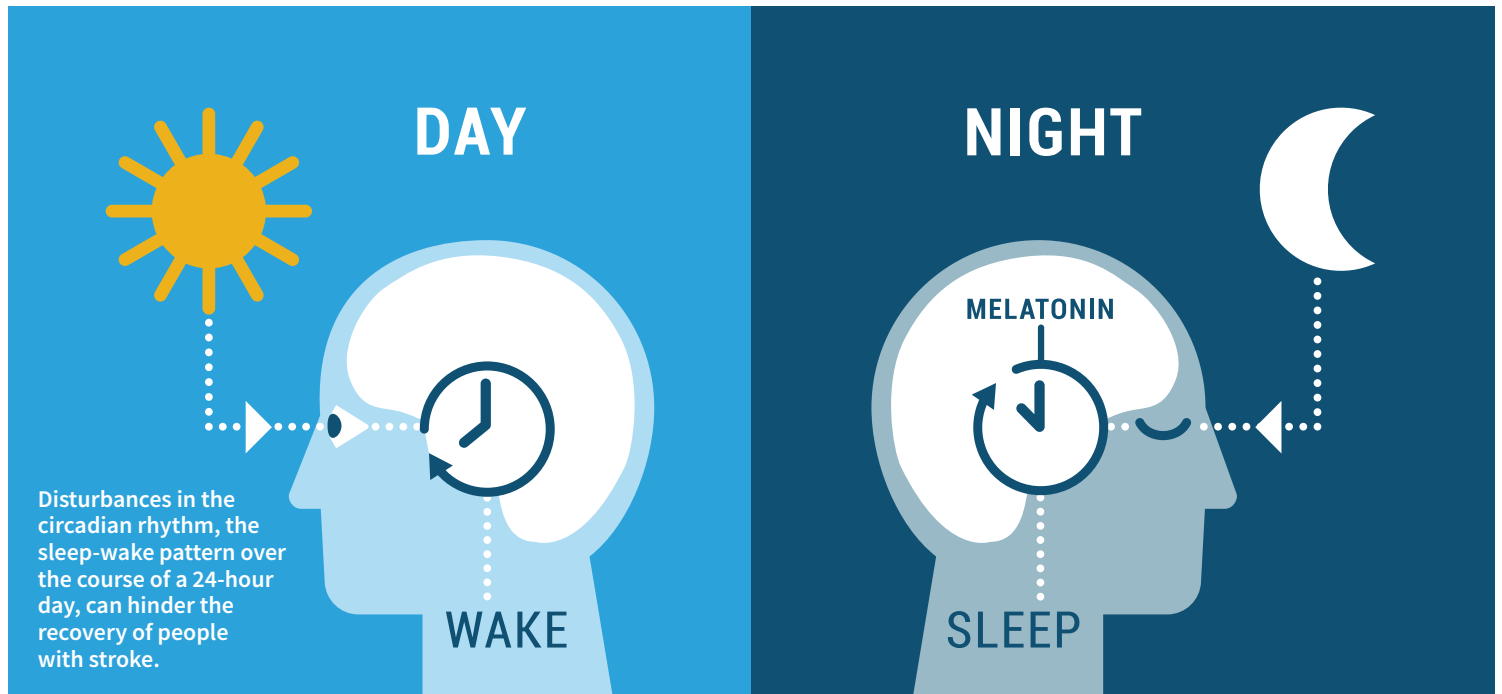


The actigraph is a medical-grade wearable device to capture data for sleep, physical activity, and mobility outcome measures in clinical research.

The Centers for Disease Control and Prevention notes that one in three adults in this country experiences sleep deprivation. For his own life, Lau practices what he preaches. He sets a time limit on social media use, works out regularly and is careful to get a minimum of seven hours of good sleep each night. While he’s focused on improving outcomes for stroke patients who have difficulty sleeping, he says his research could have broad implications over time.

“We all need to sleep, right?” he says. “We should be asking ourselves, are we sleeping well? And if not, what can we do about it? That’s the evidence and strategies I want to provide.”

SHUTTERSTOCK



Lorna Kahn, BSPT, CHT, is a renowned hand therapist and subject matter expert in nerve transfer rehabilitation. She is the co-author of research papers and book chapters and presents at national and international conferences. Kahn is a frequent guest lecturer and panelist at hand society meetings and medical universities. Her nearly 40-year career is built on her professional relationships with prestigious plastic surgeons who consider Kahn a vital part of their patients' recovery.

Certified hand therapist

Kahn was born in Brooklyn, N.Y., one of five children, to Ingrid and Edgar Canavan. Her mother was a nurse before becoming one of the first physician assistants in the state. Kahn and her sister, Lydia, shared their mother's interest in the health professions. Lydia went to medical school, while Kahn was interested in physical therapy (PT). "In my senior year of high school, I spent a semester shadowing a physical therapist at Rusk Institute in New York. Then, I started looking at colleges based on which ones offered the best PT programs in the country – I chose Washington University," Kahn recalls.

At that time, a five-year bachelor's was the entry-level degree for PT, and there was only one lecture in the curriculum on hand therapy. It wasn't something Kahn thought she'd be interested in. Following graduation in 1984, she moved to Oregon for three years, got married, then moved back to St. Louis where her husband,

Randy, had what was supposed to be a two-year appointment. "I wanted to be back at WashU, and there was an opening at the Orthopedic Center for Upper Extremity Rehabilitation (OCUER)," Kahn explains. "OCUER provided hand therapy for the orthopedic surgeons, and Milliken Hand Rehabilitation Center provided it for the plastic surgeons. I was in the clinic with Dr. Paul Manske, who was the head of orthopedic surgery, Dr. Robert Strecker and other surgeons. We used one of their treatment rooms as our satellite clinic so that patients who just came out of a cast or had a large wound didn't have to leave the physician's clinic without proper splinting. We also took carts to see inpatients in their rooms." Kahn eventually became board-certified as a hand therapist within two years of the establishment of the national certification process.

Eventually, OCUER merged into Milliken, so there was one hand center serving both orthopedic and plastic hand surgeons and

their patients. After the birth of their first child, Kahn worked part-time at several hand clinics, including Milliken, for the next 10 years. From 2000-06, she stepped away from hand therapy to support her husband's new business and raise their three children until she felt it was time to return. "I was a little hesitant to come back, but I fell right back into it," Kahn says. "Soon after that, I met Dr. Mackinnon, and that changed everything."

Physician-therapist relationships

Susan Mackinnon, MD, the Minot Packer Fryer Chair of Plastic Surgery, is described as a "groundbreaking scientist and nerve surgeon" who is widely recognized as an international authority on peripheral nerves with a focus on nerve transfer surgery. "When I returned to Milliken, she had had a rift with one of the former therapists and wasn't referring to our clinic even though we were right next door," Kahn remembers. "I'd been back for a

Hand therapy in nerve transfer rehabilitation

by Michele Berhorst

Kahn performs shoulder stabilization exercises on a patient with an accessory nerve injury.



MARK GILLILAND

week or two, and the manager told me, 'I want you to take this walk-in from Dr. Mackinnon.' I was unfamiliar with nerve transfers, and the patient had to catch a bus back to Indiana. So, I taught him some exercises, but I felt terrible that I didn't know anything about nerve transfers. I started asking questions, and Dr. Mackinnon appreciated my inquisitiveness. The more my interest grew, the more patients she'd send me. Then, one day, she asked, 'What would it take for me to have you in my clinic?'"

Thus began Kahn's 18-year (and counting) relationship with Mackinnon. "She is an incredible mentor. She challenged me, and that's what I needed at that point in my career to grow," Kahn says. "I became her rehab liaison and started creating the postoperative protocols for her surgeries. She has a great appreciation for the therapist's perspective, which is different from a medical perspective. I am also there to provide input with evaluations (because I ask different questions) and develop and coordinate postoperative care. It's a wonderful collaborative experience." In 2016, Dr. Mackinnon invited Kahn to write a chapter in the *Hand Clinics* edition she co-edited with Dr. Amy Moore on the subject of nerve transfers. The publication of this chapter helped therapists around the world better understand how to manage and improve functional outcomes for individuals with muscle paralysis who have undergone nerve transfers, and it gained Kahn some notoriety.

Mackinnon's associates, fellows and residents observed this multidisciplinary collaboration and saw how beneficial it was to a patient's recovery. Kahn naturally developed relationships with the doctors who came through the clinic over the years, whom she now sees at meetings and conferences. Some even invite her to speak

or present at their institutions on nerve transfer rehabilitation.

Through Dr. Mackinnon, Kahn began working with Ida Fox, MD, professor of surgery in the Division of Plastic and Reconstructive Surgery. Fox also performs nerve transfer surgery but also specializes in nerve transfers in spinal cord injury patients to help them regain some volitional movement in their hands. Kahn worked closely with Fox for 15 years to develop a therapy program to optimize patient outcomes following surgery. They published a paper in May 2022 in *Springer Nature's Spinal Cord Cases and Series* to give therapists a framework for motor reeducation after nerve transfers.

Kahn expanded her peripheral nerve practice into a third population through Alison Snyder-Warwick, MD, associate professor of surgery in the Division of Plastic and Reconstructive Surgery. "She was a former resident of Dr. Mackinnon who returned to WashU to start a facial nerve practice. She wanted me to see her patients, but, at the time, I didn't know anything about facial paralysis. In 2013, she invited me to attend an international facial paralysis conference with her," Kahn says. "Aside from palsies and facial nerve injuries, she sees children with Moebius syndrome. Sadly, they are born without facial nerve function and are unable to make facial expressions. By grafting a leg muscle to the cheek and transferring a working nerve to it, the child can potentially smile for the first time in their life."

Subject matter expert

Because of her expertise in nerve transfers, Kahn has taken on another role as an educator in multiple capacities. For years, she was a lab assistant in the Program in Physical Therapy at WashU for their hand and upper extremity units and guest lectured on nerve transfers to the third-year students. She is a guest lecturer, presenter and/or panelist for the American Society of Hand Therapists and the American Association for Hand Surgery. Kahn has taught and developed courses for the Hand Therapy Certification Commission. In 2023, she traveled to Italy to present at the Federation of European Societies for Surgery of the Hand. She delivered a Grand Rounds presentation on nerve transfer rehabilitation to Yale University's Department of Plastic and Reconstructive Surgery last March and spent a day lecturing to the hand therapists there.

Kahn is the co-author of numerous papers and book chapters. She is the first author on the recent publication, "Key Concepts for Nerve Transfer Rehabilitation After

LORNA KAHN



Dr. Susan Mackinnon with Kahn

Surgical Reconstruction for Brachial Plexus and Peripheral Nerve Injuries," in the *Journal of Hand Surgery* (November 2023).

Currently, she is writing and editing a book with hand therapists at eight other academic nerve centers around the country on the subject of nerve transfer rehabilitation.

Changing lives

When asked what she is most proud of in her career, Kahn doesn't respond with a speaking engagement, a publication or a physician collaboration. It's a patient – a nine-year-old girl who regained use of her hand.

"A psychiatrist had referred her to our clinic because she was diagnosed with clenched fist syndrome, a mental illness where a patient refuses to open their hand. A colleague was trying to treat her, but she was in distress and screaming. I asked if I could look at her because her reaction was so extreme," Kahn shares. "I evaluated her and thought, 'She has a nerve injury.' She had had a blood draw in that area, near the median nerve, and the problems started soon after. I asked Dr. Mackinnon to look at it, and she agreed. It took a couple of months to convince her parents and other providers she needed surgery."

Kahn was worried on the day of the surgery. She thought – What if I'm wrong? What if she didn't need surgery? What if the psychiatrist was right all along? She went into the clinic nervous the next day and asked Dr. Mackinnon how it went. "She said, 'Go see her. Go up to her room.' I did, and she was batting a balloon back and forth with her dad using that hand," Kahn says. "The nerve had abnormal scarring sitting on it. As soon as the nerve was released, she felt better. By the end of the year, she regained 100% of function and was playing golf. We published a paper so it can inform other doctors that a nerve injury could, in some cases, be the cause of clenched fist syndrome, not a mental illness. It was a life-changing moment I'll never forget."

LORNA KAHN



Dr. Ida Fox with Kahn

Alumni Profile: Sarah Brzeszkiewicz, MSOT '14, OTR/L

Many medical disciplines are starting to integrate artificial intelligence (AI) into patient care. Occupational therapy (OT) is no exception; assessments and interventions can utilize AI technology through wearable devices or voice-based smart home assistants to capture data that can be used to improve patient outcomes.

Alumna Sarah Brzeszkiewicz, MSOT '14, OTR/L, is a clinical advisor at Sensi.AI, a tech startup company that developed the world's first in-home virtual care technology, which uses audio AI to assist care agencies in providing clients with 24/7 support.

Following graduation, Brzeszkiewicz worked as an occupational therapist in the flex department of the Rehabilitation Institute of Chicago (now the Shirley Ryan AbilityLab). "Flex means you float throughout their whole network. I worked in the day rehab, outpatient and pain clinics before ending up in inpatient rehab. That population clicked with me the most," Brzeszkiewicz says. "I transitioned into their stroke unit, where I stayed until 2019 when I moved to Austin, Texas, to escape the brutal Chicago winters and find work-life balance. I started working at St. David's Rehabilitation Center's inpatient rehab and was a part of their stroke and brain injury unit."

The year 2020 proved to be a turning point for Brzeszkiewicz; she experienced clinical burnout due to three compounding factors. "I was working on the COVID unit while also carrying a caseload on the non-COVID rehab side. The unique complexities associated with a COVID diagnosis and ever-evolving operational changes on the unit made balancing both workloads difficult," Brzeszkiewicz explains. "Furthermore, the social-political climate amid the Black Lives Matter movement following the murder of George Floyd amplified daily challenges faced by many practitioners of color. Personally, it was exceedingly challenging for me to navigate unfiltered comments and microaggressions from

PHOTO COURTESY OF SARAH BRZESZKIEWICZ



patients, their families and, at times, my colleagues. The final factor was caring for a family member who had a stroke, which led me to spend the last two months of 2020 isolated in a rehab hospital helping them recover. I was mentally and emotionally spent."

She started researching what nontraditional spaces an occupational therapist could fill. "I turned to the tech industry and health tech startups. I felt like I needed to find a different space to practice and get energized again," Brzeszkiewicz says. "I was targeting jobs that called for a clinical component, and that's how I found Sensi.AI. Their mission is to use AI to support the home care industry by providing a tool that can help agencies use data to optimize care and have evidence-based decision-making."

In her role as clinical advisor, Brzeszkiewicz works with her tech colleagues to support agencies across the U.S. and internationally. "Think of me as a bridge between the product and the

people utilizing the information at the agencies. I help them by not only supporting them to use the product from a technical side but also incorporating the data they receive into the services they provide."

Sensi.AI's product consists of passive, audio-based pods that help their system identify care-related occurrences that happen in a person's home and send that data to a customized dashboard at the care agency. "Let's say a client has mentioned experiencing burning with urination or increased trips to the bathroom. That will trigger the AI to capture that moment. The system can also highlight patterns or reveal a trend in experiences or behaviors. In this case, the agency will be notified that a possible urinary tract infection (UTI) might be occurring, so they can be proactive in getting a urinalysis or partnering with other care providers to address the concern," Brzeszkiewicz says. "Our product enables the home care model of service delivery to be more proactive and less reactive. Without this

system, the agency may not learn about the UTI until the infection has progressed and the client is hospitalized.”

She is also utilizing her clinical experience and OT lens: “I’m constantly assessing the agency’s stage of readiness for integrating this technology and identifying strategies to help them progress along the adoption process. Each agency comes to us at a different stage of preparedness, and sometimes the flow along a customer’s journey is not always linear. So being an occupational therapist, I’m looking at what are the barriers, what are the supports that are going to allow this and allow me to help them get the most out of the product to help their clients.”

Brzeszkiewicz sees potential in AI addressing health-care barriers and helping improve access to quality care. “At Sensi.AI, we seek to bridge the gap between the caregiver shortage and the increasing aging population in need of services. The care provider using virtual monitoring can help clients reduce

health risks, advocate for positive change, and optimize care delivered in a more personalized way.” However, she cautions, “As with any platform utilizing machine-learning algorithms, we must continue to be aware of biases inherent in the training data that can perpetuate inequities. For example, Sensi.AI is actively working to expand our system’s capabilities into other languages so that even more individuals can receive better access to care.”

While the setting has changed, Brzeszkiewicz still does what occupational therapists do best: care for clients. “A component of our system can detect falls. An agency had a client who fell in their home, and we sent an alert when the fall occurred. The agency followed up with the person, but there was no response. They sent someone to the home, who found the client injured on the floor,” Brzeszkiewicz recalls. “The client went to the hospital, and it turned out that their brain was hemorrhaging. This person didn’t have much of a support system

beyond the agency. Without our product, it could have been days before they were found between the two care shifts. The agency was able to be proactive when the client returned home to change their care plan to prevent another fall and continue to monitor it through our pods.”

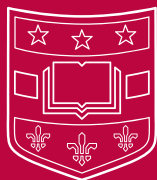
For occupational therapists hesitant about incorporating AI into their practice, Brzeszkiewicz offers the following advice: “Embrace the technology, and, if possible, start to incorporate familiar AI tools like a wearable watch the client may have. Be open-minded and see such devices as another tool in our toolbox. As a profession, we need to stay up-to-date with AI technology because it can open practitioners to new career opportunities and improve the optimization of the care we provide.”

WASHINGTON UNIVERSITY OCCUPATIONAL THERAPY ALUMNI

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Stop by Booth #1142 to

- **Visit** with friends and colleagues
- **Pick up** a WashU lanyard
- **Learn** about our PP-OTD program
- **Update** your contact information



Have a drink at the Alumni Meet Up!

Friday, March 22
Rosen Centre Hotel
Sam & Bubbe’s Lobby Bar and Lounge
5:00 – 7:00 p.m. EDT
RSVP required

Please **RSVP** for the meet up using the QR code or visiting bit.ly/WUOT-Alumni-2024



Berg retires after 36 years

On Jan. 4, the Program in Occupational Therapy celebrated the career and accomplishments of Christine Berg, PhD, OTR/L, FAOTA, who officially retired from Washington University on Jan. 2.

For the past 36 years, Berg has served the Program as a leader, educator, mentor, advisor, advocate, colleague and friend to all. Berg had an active role in curriculum design, program evaluation, accreditation review and establishing community partnerships for student experiential learning. Berg was promoted to professor of occupational therapy and neurology in 2022 and served as interim director of the Education Division from 2020-22.

As an educator, she mentored countless students in community-centered population health. Berg developed relationships with more than 100 community agencies in St. Louis to build health equity and benefit populations who are underserved, unserved and marginalized. Her students worked with the agencies to develop, deliver and support effective educational programming to enhance the capacity of current staff and program outcomes. These student-agency partnerships helped promote the role of occupational therapy on interprofessional teams to enhance population health.

Her many accolades include becoming a fellow of the American Occupational Therapy Association in 2014 for being an innovator in community practice and receiving the 2018 Gerry and Bob Virgil Ethic of Service Award from Gephardt Institute for Civic and Community Engagement and the Lifetime Achievement Award from Washington University's Academy of Educators in 2021 for her outstanding contributions in health science education.

Berg has left a lasting impact on the profession, the community and everyone in the Program over the years. We wish her the very best as she embarks on her next chapter – retirement!



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4

1. Program faculty, clinicians and staff gather to wish Berg well; 2. Lisa Connor, PhD, MSOT, OTR/L, with Berg; 3. Peggy Barco, OTD, OTR/L, SCDCM, CDRS, FAOTA (left), presents Berg with decision dice; 4. Berg reminisces about a classroom experience with Emily Somerville, OTD, OTR/L (middle), and Jenny DeBourge, MS, OTR/L (right).

Future leader

Lexi Hanson, OTD/S '25

Hometown: St. Louis, MO (born in Kingston, Jamaica)

Degrees: BA in psychological and brain sciences, Washington University in St. Louis

Leadership: WUSOTA Co-Chair for Media Relations Committee, Graduate Research Assistant, Washington University Student Affairs Advisory Board

What are your meaningful occupations?

I love spending my time laughing at inside jokes with my family, eating throughout St. Louis with my friends, and traveling and learning about other cultures. One example is during the summer of 2022, I studied abroad in Senegal and completed a research study related to occupational therapy (OT). I learned about the differences in child-rearing practices, which broadened my perspective in working with a variety of clients. I also love re-reading the same books and especially putting on live concerts in my bedroom for my biggest fan, my dog!

My family and I dedicate time volunteering in our community, which includes fostering animals for the Humane Society of Missouri (we've fostered over 800 dogs and cats in the last 10 years). We also regularly volunteer at the orphanage I was adopted from in Jamaica. My dream is to use my OT knowledge to give back to the orphanage one day.

What is your definition of OT?

OT means something different to everyone, which is what I love about the profession. I believe OT means helping people participate in the activities that they find meaningful and allowing them to feel the best they can, physically, mentally, and emotionally. OT facilitates making a difference and changing the way people view and engage in their lives.

Why did you choose the OTD degree?

Earning an OTD degree is a great opportunity that I believe is the best choice for me. It is a full circle for me and allows me to give back to a community that helped me when I was younger. I am still deciding where this degree may take me, but having a doctoral degree opens so many doors for me as a continuous learner. As I create a capstone project, this will allow me to reflect on where my energy and passions can go!

What are your career goals?

My goals are evolving! After practicing clinically as an occupational therapist, a possible long-term goal is advocating for children's rights and becoming involved in OT policy.

What WashU experience so far stands out to you?

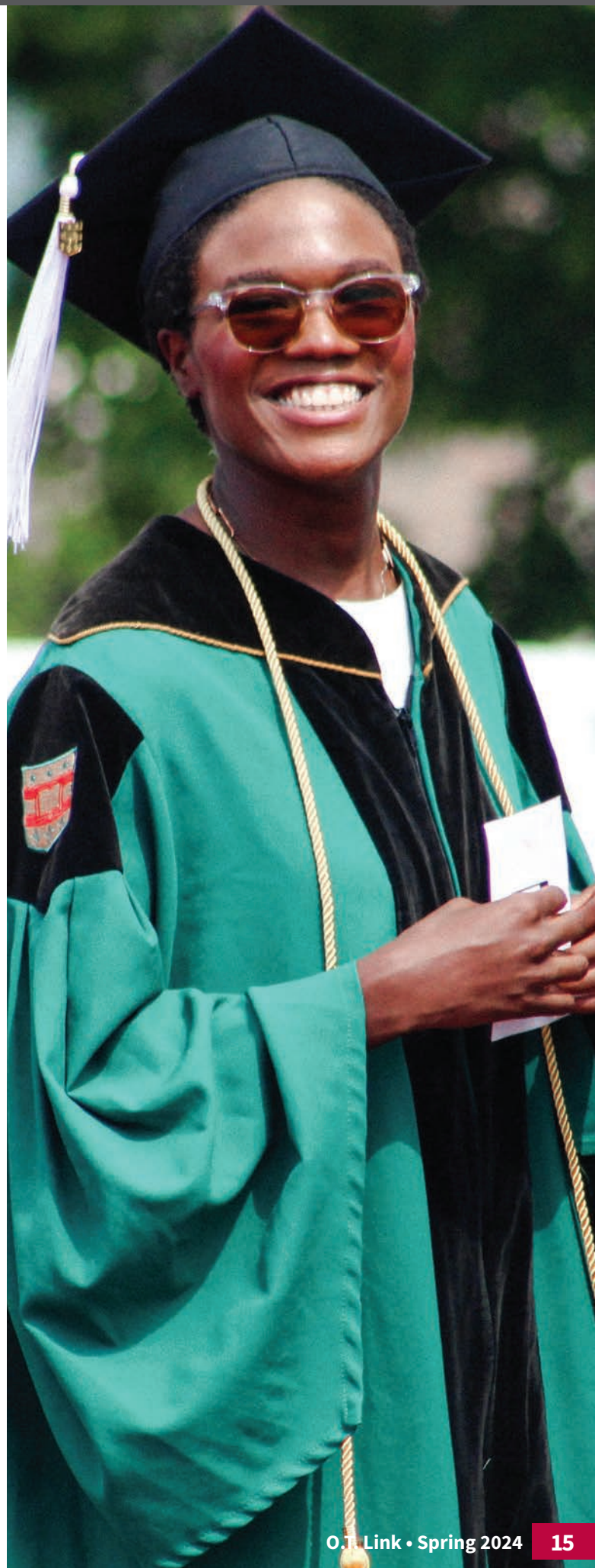
On my very first day at WashU as a first-year student, I was chosen to ask Nadine Strossen, the former president of the American Civil Liberties Union and renowned author, one question during a Q&A. This kicked off my WashU experience, and I promised to "squeeze the juice" out of WashU.

Anything else you'd like us to know?

I'd like to thank my pod for their continued support.

A special thank you to my OTD lab mentor, Dr. Baum, who has made my experience very stimulating and taught me how holistic and meaningful the field of OT is!

I am also so grateful for this experience to go into a profession that was so monumental to my growth and development as a child. The occupational therapists who worked with my family and me when I was a child are why I am here today. It's a full circle opportunity, and I am ready for the next step!





Watson (right) checks in with Team 3, who are constructing a carrier to support a baby with motor delays who needs his tummy supported as he learns to crawl.

Inaugural Assistive Tech Make-A-Thon

We were honored to partner with the Spartan Light Metals Product Makerspace and the Department of Biomedical Engineering with support from Cecropia Strong, a non-profit that aids persons with disabilities, in the inaugural Assistive Tech Make-A-Thon. Eight teams of engineering and occupational therapy (OT) students had one week to design and build an assistive device in the Spartan Light Metal Products Makerspace that met the specific needs of current WashU OT patients and St. Louis community members who served as co-designers.

The Make-A-Thon organizers included Marit Watson, OTD, OTR/L, PMH-C; Hailey Furio, MSOT '23; Ruth Okamoto, DSc; Patricia Widder, MS; Joseph Klaesner, PhD; and engineering student Amy Xue, Makerspace MakerFellow. The teams presented their final prototypes to their co-designers Feb. 7 in the Community Experiential Learning Center.

Read The Source's article on the project written by senior news director Diane Toroian Keaggy by scanning the QR code.



Team 2 builds an electronic goniometer for a visually impaired OT student.



Team 8 creates a waterproof hood for a community member with nerve damage.



Team 5 fabricates a modified dressing stick for a man with a spinal cord injury.



Team 6 designs a device for a 6-year-old with cerebral palsy to carry items.



Making splints

As a part of the Biomechanics course, first-year students learned splinting from two Milliken Hand Rehabilitation Center specialist therapists, Tim Pemberton, MSOT, OTR/L, CHT (center, left), and Kimberly Singer, MS, OTR/L, CHT (center, right), on Feb. 22. Students learned how to fabricate a resting hand splint adhering to precautions using various materials.

Washington University School of Medicine
Program in Occupational Therapy
MSC 8505-66-1
4444 Forest Park Ave.
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Tweets we love
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AOTA's OT Student Pulse newsletter has a new Editor-in-Chief! OTD Candidate Carley Yanuck, MM says she is thrilled to step into her new role and looks forward to elevating "the emerging voices of the profession." Read more: <https://bit.ly/41ZDeNr> –@AOTAInc • Jan 17

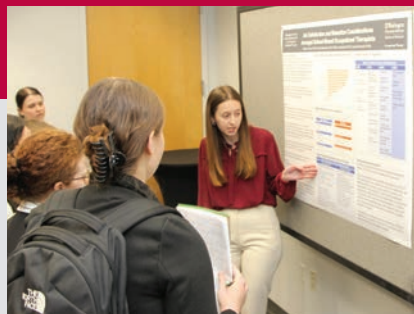
Upcoming events



March 21-23, 2024

AOTA Inspire 2024
Orlando, Florida

Visit ot.wustl.edu for the latest updates.



April 26, 2024

OT Scholarship Day

Graduating students share their work through both oral and poster presentations.



May 13, 2024

Commencement

Our 2024 Commencement Ceremony will be held in Graham Chapel at 1:30 p.m. CDT on May 13, 2024.

The Program in Occupational Therapy is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 6116 Executive Boulevard, Suite 200, North Bethesda, MD 20852-4929. ACOTE's telephone number, c/o AOTA, is (301) 652-AOTA and its web address is www.acoteonline.org.