IMPACTS

MAGAZINE OF THE IU SCHOOL OF HEALTH AND REHABILITATION SCIENCES



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Health Sciences • Nutrition and Dietetics • Occupational Therapy • Physical Therapy • Physician Assistant Studies

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Greetings from the Dean

Dear Friends.

You have to appreciate the irony that I once again have an office in the building in which I was born. Coleman Hall, the home of the School of Health and Rehabilitation Sciences, was originally Coleman Hospital for Women. I am so delighted to have the opportunity to return "home" to my academic roots as a member of the PT faculty and for the privilege of serving as interim dean while we move through the process of finding our next permanent dean.

As you will learn as you read through these articles, nothing is slowing down the progression of our accomplishments. These are some of the highlights from the past year with many more detailed throughout the magazine:

- The DPT program was reaccredited for a period of 10 years and has received approval to implement a DPT/PhD degree.
- The Master of Physician Assistant Studies Program completed the accreditation process receiving a full 10-year accreditation and moved into newly renovated space in the Health Sciences (formerly Regenstrief) building.



- The OTD post-professional program graduated its second class of nine professionals and is enrolling its next class
 of 12. Additionally, the OTD entry-level degree has been approved by IU, and the application for candidacy status
 submitted to ACOTE, the national accrediting agency.
- Beginning this fall, the Department of Nutrition and Dietetics will begin offering an undergraduate certificate in
 nutrition to meet the growing interest of undergraduate students in general nutrition concepts. The concept of
 offering an entry-level professional doctorate in dietetics, which will combine academic coursework and supervised
 practice is being explored. This educational strategy would be one of the first in the country to move to this level.
- The Bachelor of Science in Health Sciences degree is one of the fastest growing degrees at IUPUI. To accommodate the expanding needs of the Department of Health Sciences, the department offices moved into renovated space adjacent to the PA Program and now has an appropriate space for advising students.
- Seven of our graduate students were recognized as members of the IUPUI Elite 50, a program that recognizes the
 top graduate students at IUPUI based on their overall accomplishments. Three of our students were in the top five
 and Katherine Bridgeman, DPT Class of 2017, was IUPUI's top graduate student!

Our faculty, along with our students, continue to be researchers and disseminators of their scholarship. In the past year, over 44 publications were generated and \$2 million dollars in grant funding received.

Looking ahead to the 2017-18 academic year, we are working with the SHRS Alumni Association to plan an 'all classes' reunion event. Watch for more information and please plan to join us in this opportunity to celebrate with your classmates

We remain grateful for the generosity of our alumni who provide support in many different ways. Without your dedication, we could not complete the education of our students. Financial gifts to the school supported 22 scholarships awarded to our students. Donations of supplies have assisted students in their work with medically underserved individuals through the IU Student Outreach Clinic. Others donate time by serving on a variety of committees or teaching within our courses. All of you contribute by spreading the word of the impact that is made by our alumni.

Thank you for your continuing support of the school, and we look forward to hearing from you.

Best Regards,

Rebecca Porter, EdD, PT

Interim Dean



IU Occupational Therapy: A Reputation of Service and Academic Excellence

By Brenda Lawless

Occupational therapy (OT) - a healthcare profession dedicated to compassionate care and service - assists individuals managing chronic diseases or recovering from trauma by teaching them how to complete basic daily activities needed to live productive and meaningful lives. The IU OT program has graduated highly skilled practitioners since its inception, and in nearly 60 years, has built a stellar reputation of service and

academic excellence.

While IU's academic program wasn't officially developed until 1959, its early influence came from the IU Medical Center, which hired Winifred Kahmann (*pictured right*) to create the first OT clinic at Riley Hospital for Children at IU Health. In Indiana, Kahmann's influence was felt at the state and national level, as she founded the Indiana OT Association and was the first president of the American OT Association.

The IU OT department has come a long way since those early years, with its degree programs evolving from a certificate to a bachelors degree. Now it is a masters program and is moving into an OT entry-level

doctorate next year. The program is ranked 25th in the U.S., and was honored earlier this year by having three faculty named to AOTA's 100 most influential OTs of all time - Winifred Kahmann, Thomas Fisher, and Joy Huss.

IU OT faculty direct innovative research agendas that include long-term studies on liver transplant patients, efforts to improve fitness levels of older individuals, and interventions

for individuals post-stroke. They also look for ways to include creative and experiential learning experiences in the classroom, such as implementing 3-D printing into lab practice, involving students in a transition program for long-term prisoners, and developing interprofessional educational experiences with other healthcare programs such as PT and dentistry.

The program's faculty, students, and alumni participate in numerous community service projects that include a pro bono clinic on Indianapolis' near east side, meal production for the Ronald McDonald House, activities with Servants at Work building wheelchair ramps, and a recent service trip to Belize. In addition, IU OT faculty are consistently recognized for their excellent scholarship. For example, Dr. Patricia Scott was presented with the 2016 IUPUI Petronio-Bantz Translating Research into Practice Award. Her work on role identification for liver transplant survivors has been translated into current OT practice and is now used in the clinic.

IU OT students are also acknowledged for their outstanding academic performance.

This year, two OT students ranked in the top five of IUPUI's Elite 50, and two additional students were awarded the prestigious William M. Plater Civic Medallion for their remarkable dedication to community service.

As the IU OT department moves into the OTD entry-level degree program in 2018, it will continue to make significant strides in OT education and research.

OT Influence Leads to Iconic Wagons

By Brenda Lawless

The IU OT Program has partnered with Riley Hospital for Children at IU Health for over half a century, supplying OT clinicians who have made significant contributions to patient care at the children's hospital. Retired chair of the IU Department of Occupational Therapy, Celestine Hamant (*pictured right*) was hired in 1969 to manage the hospital's cerebral palsy clinic which was located on the 4th floor.

Because the young patients had to be transported up and down floors - often carried - each day for therapy sessions, Hamant quickly realized what a risk this was to both patients and therapists. She determined that the simplest solution would be to use a wagon to move the children to the OT clinic and back. She brought in a standard red wagon, and it was an immediate hit for both the therapists and children. A second wagon was adapted to carry bags, IV poles, and other necessities for the young patients.

It wasn't long before the wagons would go missing and would be found each time at the hospital's nursing units. The nurses had quickly realized the wagons' benefits – practical, safe, and fun for the children who had to undergo treatments in different areas of the hospital. After several forays to look for missing wagons, the OT clinic bought more and painted them blue and yellow. Other hospital departments followed suit and acquired their own, using the traditional red color that Riley's wagons are known for today. These iconic transport tools are now a symbol of what Riley Hospital for Children at IU Health and the IU Department of Occupational Therapy embody – compassionate patient care.





New Curriculum Prepares Students to Work Together for Better Patient Care and Outcomes

By Jill Jansen

Teamwork provides a winning advantage almost anywhere - including today's evolving healthcare industry. Beginning this fall, our physical therapy, occupational therapy, physician assistant, and nutrition and dietetics students will join peers from seven other IU health sciences schools in a new curriculum designed to foster the skills graduates need to work together across professions to meet the health needs of patients and communities.

"The goal is for learners to have hands-on experiences working on healthcare teams during their training so they can work together effectively in teams when they graduate," says Andrea Pfeifle, PhD, director of IU's novel Interprofessional Practice and Education (IPE) Center, which launched in 2014.

Mounting evidence, Pfeifle adds, shows that working in teams results in safer care and better healthcare outcomes, making these skills essential to the ever-changing healthcare industry. The IPE Center's Team Education Advancing Collaboration in Healthcare (TEACH) framework will launch in August 2017 and includes four core competencies IU students need to lead and participate effectively in healthcare teams that address individual and population health concerns in Indiana:

- Roles/responsibilities
- Values/ethics
- Teams and teamwork
- Interprofessional communication

In the first part of the TEACH curriculum, students will work in supervised teams to complete case-based, problem-based, and simulated exercises to address real-world challenges faced by Hoosiers. The second part of the curriculum allows students to apply their newly acquired teamwork skills in real-world practice, ultimately building an electronic portfolio of their work to demonstrate their contributions to the health and healthcare needs of Indiana.

Even before TEACH's official launch, interprofessional team education has been a priority for IU SHRS students. In 2016, more than 440 students participated in IPE events. Forty-four occupational therapy students worked alongside students from other health professions at the IU Student Outreach Clinic in Indianapolis. More than 200 students representing nearly all SHRS degree programs participated in a diversity workshop, and 38 PA students attended an ethics workshop. Occupational and physical therapy students also took part in two TEACH "anchors," (*shown in above photo*) interprofessional learning events (IPLE) common to all participating healthcare professions, which include affinity-based IPLEs shared by three or more professions and a capstone interprofessional practice experience.



OT Department Chair on 100 Most Influential OT List

By Richard Schneider

Thomas Fisher, outgoing chair of the Department of Occupational Therapy (OT), has been named one of the 100 most influential people within the OT profession over the last century.

As part of their 100th anniversary celebration, the American Occupational Therapy Association (AOTA) established a list, beginning with those who founded the profession and moving on to those who have made significant contributions to OT practice during its first century of existence.

"It is humbling to be associated with people who founded the profession," Fisher said.

AOTA cited several of Fisher's accomplishments that have made him such an influential leader in OT, including leading efforts in Indiana and Kentucky to have legislation adopted for the licensure of OTs and OT assistants.

AOTA also recognized Fisher's work with the Commission on Accreditation for Rehabilitation Facilities International. For more than 20 years, he served as a surveyor for the commission. During that time, he collaborated on the development of a commission accreditation process and standards in Canada for return-to-work programs. Further, he significantly contributed to the commission's development of case-management standards.

His extensive publication list in the areas of scope of practice, regulation, and issues faced in OT practice has made him a point person for the association, with many emerging OT leaders using his example.

Fisher recently accepted the position of dean of the Vera Z. Dwyer College of Health Sciences at IU South Bend. He began this new position on July 1.

Dr. Fisher poses with Department of Occupational Therapy faculty at his farewell reception. L to R: Crystal Massie, Sharon Pape, CJ Liu, Patricia Scott, Thomas Fisher, Robin Janson, Elaine Fess, and Christine Kroll.



N&D to Celebrate 100 Years in 2018

By Jill Jansen



Department of Nutrition and Dietetics

It's been 100 years since two students – M. Lute Troutt and Elizabeth Lemper – were accepted into the first IU Nutrition and Dietetics Internship. That was in 1918, and SHRS is preparing to host a special celebration, "One Hundred Years of Nutrition and Dietetics" on April 21, 2018. The event will take place at the COURSES Restaurant and Bakery at Ivy Tech Community College near downtown Indianapolis.

"We're proud of the fact that IU is the second oldest continuously admitting nutrition and dietetics internship in the nation," says Jacquelynn O'Palka, PhD, RDN, clinical professor and department chair. "Since our founding, we've graduated more than 1,500 students from our program and look forward to welcoming many of them back for this special celebration."

The keynote speaker for the event is Carol J. Boushey, PhD, MPH, RD, associate research professor and director, Nutrition Support Shared Resource, University of Hawai'i Cancer Center, University of Hawai'i at Manoa. Dr. Boushey will discuss the associations of key diet quality indexes and health.

The anniversary celebration will include a luncheon featuring many of the classic recipes familiar to graduates of the Dietetic Internship Program at IU Medical Center.

Other highlights of the IU nutrition and dietetics program's 100-year history include:

- 1918: Admission of the first dietetic interns
- 1927: Miss Troutt reports to the Indiana Dietetic Association on the new structured curriculum, the Mary DeGarmo Bryan Course, for student dietitians.
- 1934: The program received its first national accreditation.

The program has had five directors in the past 100 years. In addition, more than 180 preceptors representing 60 healthcare facilities in five Indiana counties are involved in the education and training of nutrition and dietetics interns.

To register for the event or to update your information, visit: https://shrs.iupui.edu/academics/nutrition-dietetics/ND100.

PA Program Granted Accreditation-Continued Status

By Richard Schneider

The IU Master of Physician Assistant Studies (MPAS) Program has passed another milestone: the Accreditation Review Commission on Education for the Physician Assistant has granted it Accreditation-Continued status. The program enrolled its first students in 2013 and graduated its first cohort in 2015.

The 27-month program trains physician assistant students to work as part of a highly skilled medical team under the supervision of a physician or surgeon to address patient needs. Physician assistants have the ability to work autonomously to examine, diagnose and treat patients, and to prescribe medicine. The program won't face its next validation review for another 10 years - in March 2027, said Rebecca Rebman, director of the IU MPAS program.

The commission examines whether the program is in compliance with 115 standards. "It was a very arduous process," Rebman said. "The standards are a framework for programs to determine best practices in alignment with their institution's and their program's goals and missions."

"Although the next accreditation review will not take place for a decade, the process never stops," Rebman said. "It's an ongoing process. We constantly ensure that we are in compliance and providing the best education possible to our students."

Online Nutrition Certificate Starting Fall 2017

By Brenda Lawless

A new online certificate program in basic nutrition science that will prepare students to sort nutrition fact from nutrition fiction will be offered beginning in fall 2017.

The certificate developed by the school's Department of Nutrition and Dietetics is designed for current students who are preparing for professional healthcare fields such as nursing, occupational therapy, physical therapy,



public health, medicine, or dentistry as well as anyone interested in improving their own knowledge and health.

The certificate program, delivered completely online, will enable graduates to make well-informed nutrition choices for themselves, their families, and clients. The certificate program is comprised of four undergraduate courses that cover basic nutrition, translational research, lifespan development, and disease prevention. By enrolling in one course a semester, students can complete the certificate in four semesters.

More information about this online program can be found on our website - shrs.iupui.edu - or by contacting the SHRS admissions office at shrs.iupui.edu.

New PT Course Emulates 'Grand-Rounds'

By William Thompson

Choosing the right treatment at the right time is critical for helping patients recover physical function. As such, being an excellent physical therapist (PT) involves much more than just knowing specific information, it requires the ability to think critically, in complex situations, and to apply that information at the best time possible.

All IU PT students receive extensive training in clinical decision-making; and as a means of expanding critical thinking capacity in this area, a new course was recently added to the DPT curriculum. This unique course invites an expert each week to present a clinical case describing the evaluation, treatment, and outcomes of a real patient from first interaction to discharge. Analogous to the "grand-rounds" format used by physicians, the goal of the presentation is to engage the students in a conversation about patient cases, during which questions about evaluation techniques, treatments, and clinical decisions are asked. As the case unfolds, students respond to specific questions that guide



them through the decisions necessary to achieve best outcomes. In this format, the students benefit from direct interaction with the clinician, but also from their classmates, who are often a year ahead or behind in the curricular structure, thereby exposing those students to information they may not have had at that point.

This class provides students with an opportunity to come face-to-face with experts in the PT profession and ask in-depth questions about treatment paradigms. While the primary goal of the course is to foster clinical expertise within our PT students, this course will also develop relationships with local clinical experts and expand upon the "culture of learning" among the health professions in the Indianapolis area. Feedback from students, faculty, and clinicians within the community has been overwhelmingly positive.

Speakers from the past year included many local clinicians as well as experts from University of Notre Dame, University of Delaware, the Mayo Clinic, University of Kentucky, and a former PT for the US National Ski Team. Through interactions with these experts, our students are developing the knowledge and confidence to apply cutting-edge treatments and to make the best decisions, at the right time, for the specific needs of their patients.



SHRS New Faculty and Staff Highlights



DoMonique Brock

DoMonique joined SHRS as the student services coordinator for the Department of Health Sciences. Her previous position was with One America where she was an associate underwriter. DoMonique has a bachelor's degree in psychology, loves spending time with her family, and coaches cheerleading in her free time.



NYASHA CHINEMBIRI

Nyasha joined SHRS as the program assistant for the Department of Physical Therapy. She is currently working on a pre-biomedical engineering degree at IUPUI and has a research interest in HIV prevention. Nyasha also works with the Healing Friends Foundation in their mission to help eliminate poverty.



MORGAN DULL

Morgan joined the Physician Assistant Program as an administrative assistant and came from Indiana State University where she worked in the admissions office. She specializes in graphic design and software troubleshooting. In her free time, Morgan enjoys painting, hiking, kayaking, watching movies, and spending time with her siberian husky, Ace.



TIFFANY ESSEX

Tiffany joined SHRS as the admissions assistant and scheduling officer. She recently graduated from IUPUI with a bachelor's degree in general studies and a certificate in population health sciences. Her research interests are in prenatal care for impoverished minority groups. In her spare time, she enjoys baking and binge watching YouTube cosmetic tutorials.



ANNA FJELDE

Anna joined SHRS as the admissions coordinator and school recorder. She came from IUPUI Student Health and is currently working on her bachelor's degree in general studies. Anna is very interested in community service involving mental health and works at a hotline in her spare time. She also enjoys spending time with family, reading, hiking, and considers herself a Netflix connoisseur.



EMILY GARROTT

Emily joined SHRS as the director of development and recently completed her master's degree in philanthropy from IU. She was previously the director of advancement at TKE Educational Foundation where she coordinated numerous campaigns and alumni outreach. In her free time, Emily enjoys travel and music, and is an advisor to IUPUI's Phi Mu Fraternity.



SARAH HEMMERSBACH

Sarah joined the Department of Occupational Therapy as the assistant to the chair and came from the IU School of Medicine where she was an executive assistant. She is currently working on her master's degree in applied communication at IU. In her spare time, she enjoys traveling, hiking, kayaking, and live music.



PAIGE HUMMEL

Paige was recently promoted to the SHRS assistant business manager, coming from the Department of Occupational Therapy. She earned her MBA in 2012 and completed an HR certificate in January. In her free time, Paige enjoys boating, gardening, and traveling.



CHRISTINE KROLL

Christine joined the Department of Occupational Therapy as clinical assistant professor and director of pre-doctoral residency and fieldwork. She recently earned her OTD from IU and specializes in post-acute care and outpatient therapy. When she's not working with students or research, Christine enjoys reading, baking, and playing pinochle.



ASHLEY MSIKINYA

Ashley joined the Department of Health Sciences as an academic advisor. She came from the IUPUI Division of Student Affairs where she was the parent and family programs coordinator. Ashley earned her master's degree in higher education and student affairs from IU. In her spare time, she enjoys baking, photography, yoga, and spending time with her family.

SHRS Faculty and Staff Awards



PETER ALTENBURGER – 2016 SHRS SUSTAINED EXCELLENCE IN SERVICE AWARD

Peter, department chair and associate professor in the Department of Physical Therapy, received the 2016 SHRS Sustained Excellence in Service Award in recognition of his relentless dedication to education quality and interprofessional education. His leadership as the SHRS faculty president and chair of the university's program review committee are noted as he helped improve an ePortfolio program used in courses throughout IU.



KEITH AVIN – 2016 EMERGING EXCELLENCE IN RESEARCH & SCHOLARSHIP AWARD

Keith, assistant professor in the Department of Physical Therapy, was presented with the 2016 Emerging Excellence in Research and Scholarship Award. He has made significant contributions to the SHRS research agenda, including an external K-Award. Keith was also recognized by the APTA who honored him with the Emerging Leader Award and the Jack Walker Award - both of which celebrate research activity and publications related to patient care and advanced clinical science.



AMY BAYLISS - 2016 INDIANA UNIVERSITY TRUSTEES TEACHING AWARD

Amy, associate professor in the Department of Physical Therapy, was awarded the 2016 IU Trustees Teaching Award in recognition of her dedication to student mentoring and presentations. In addition, she makes time to coach students as they prepare for the national PT licensing exam. Dr. Bayliss was also part of the team that developed the case series rounds courses for the DPT curriculum.



AMBER COMER – 2016 SHRS EMERGING EXCELLENCE IN SERVICE AWARD

Amber, assistant professor in the Department of Health Sciences, received the 2016 SHRS Emerging Excellence in Service Award in recognition of her significant service contributions to the school, university, and community. In addition to the numerous committees on which she serves, Amber was instrumental in the proposal of Senate Bill 175, which extends who can serve as surrogate decision makers in Indiana. The bill was recently signed by the governor.



AMBER COMER - 2016 SHRS EMERGING EXCELLENCE IN TEACHING AWARD

Amber, assistant professor in the Department of Health Sciences, received the 2016 SHRS Emerging Excellence in Teaching Award in recognition of her dedication to student education and the development of moral judgement. She has been involved in mentoring at several levels ranging from undergraduate research to PhD dissertations, and even received the IUPUI Athletics Favorite Professor Award.



NIKI MUNK - 2016 SHRS EMERGING EXCELLENCE IN RESEARCH & SCHOLARSHIP AWARD

Niki, assistant professor in the Department of Health Sciences, received the 2016 SHRS Emerging Excellence in Research and Scholarship Award. In 2016, she was awarded three grants, had three publications, three published abstracts, and two presentations at national conferences. Niki was also recently awarded a three-year visiting research fellowship from the Australian Research Centre in Complementary and Integrative Medicine.



VALERIE STRUNK - 2016 SHRS SUSTAINED EXCELLENCE IN TEACHING AWARD

Valerie, senior lecturer and Director of Clinical Education in the Department of Physical Therapy, received the 2016 SHRS Sustained Excellence in Teaching Award for her dedication to physical therapy clinical education and for her successful leadership of the program's reaccreditation self-study. She has been instrumental in the creation of the integrated clinical education courses that designate the IU PT program as educationally innovative.



WILLIAM THOMPSON – 2016 SHRS EMERGING EXCELLENCE IN TEACHING AWARD

William, assistant professor in the Department of Physical Therapy, was presented with the 2016 SHRS Emerging Excellence in Teaching Award for his commitment to student education and curriculum development. He plays an active role in the department's case series rounds course and works to help develop students' critical thinking skills. William is also the faculty advisor of the SHRS Student Council.



Peggy Wortham – 2016 SHRS Staff Recognition Award

Peggy Wortham, administrative assistant for the Master of Physician Assistant Studies Program, was presented with the 2016 SHRS Staff Recognition Award. In the last year, she has been crucial to the success of the PA program, especially during a recent leave of absence of the program director and with the creation of the accreditation documents. Peggy was also instrumental during the program's move to an on-campus building, as she carefully choreographed the details to minimize effects on faculty and students.



Students Bring OT Skills on Mission Trip to Belize

By Brenda Lawless

For many college students, the idea of spending a week along the Caribbean coast sounds like an ideal relaxing break in the middle of a hectic semester. That was not the case for 10 IU occupational therapy (OT) students who spent their Thanksgiving break in Belize working with patients from a residential home and a high-risk school. In fact, when Belizeans learned of the group of OT students from the US practicing at the Octavia Wright Center in San Ignacio, many walked miles just for the chance to be seen by one of them.

Occupational therapy is a healthcare field that assists patients who may be recuperating from an injury or coping with a chronic illness or disability, perform daily work or leisure activities. What most people are not aware of, however, is that OT practitioners also specialize in mental health rehabilitation. For one week, these students were fortunate to work at a residential home for older adults with various mental health issues, and at a school

for special needs and high-risk children.

Working in collaboration with Toucan Education Programs, the group interacted with clients in various activities such as teaching yoga and other stretching exercises for those recovering from back injuries, or helping children learn how to express emotions in a healthy and productive manner. It was as enriching for the group members as it was for the people they were helping. One student explained, "my heart holds a special place for the children I met...we discussed feelings and the ways we can control or regulate those feelings."

Because they were in Belize for the Thanksgiving holiday, the students enjoyed making dinner for the residential home. They also gave the home's residents - many of whom rarely participated in activities - specific tasks for the dinner, acting on the basic premise of OT that giving them a role to play was the "best form of therapy."

Before they returned home, the students had an opportunity to visit a market and tour nearby ruins. Overall, it was an amazing immersion experience for the group. "This opportunity has changed my worldview, helped me develop my professional personality and left an impression on my heart forever," commented Kelsey McKinney, IU OT student.

Emily Ruff (below) enjoyed a hike through the Mayan ruins during her free time.



Health Sciences Student Promotes the Importance of Mental Health Awareness

By Brenda Lawless

The importance of building mental health awareness is clear considering that, according to the World Health Organization, more than 300 million people suffer from depression; 60 million suffer from bipolar or mood disorders; and 21 million are affected by various psychoses. Those numbers could easily be higher as many people avoid diagnoses and treatment because of the social stigmas that surround mental illness.

That's not stopping one health sciences senior, who has made it her mission to increase mental health awareness and help more people seek treatment. Samantha Brinkman understands what it is like to suffer in silence, and she also knows the importance of getting help before it's too late. After suffering from depression for years, she finally sought help at a nearby facility where she learned more about her illness and how to cope with daily stressors. It was there she found her calling to help educate people suffering from mental illness and let them know that they're not alone. Samantha left the facility with the determination to create a group that would provide help on the III.



the facility with the determination to create a group that would provide help on the IUPUI campus.

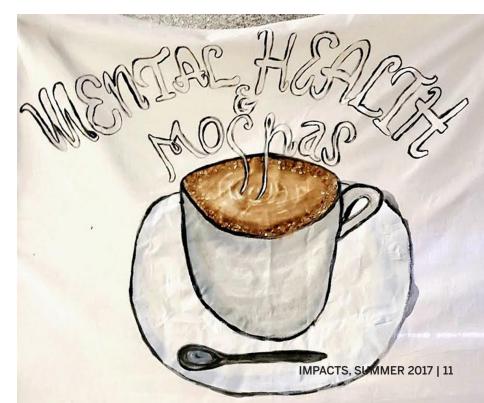
"Sometimes the best advice I can give someone who is in pain is that it's ok to not be ok." ~ Samantha Brinkman Students Who Care is an official IUPUI student organization whose mission is to increase awareness of stereotypes and fears associated with mental health through education and fundraising

events. The students hold awareness activities across campus that include information booths, dine-and-donate events, a stand-up activity called Mental Health & Mochas where participants can speak openly about issues, and an annual 5K race on the downtown canal. The group focuses on self-esteem boosting activities and works hard to let people know that they are not alone.

Formally trained to speak with students, Samantha has found that in most cases the biggest help is to just listen. This seems to make most people comfortable, especially when they understand they won't be judged for how they feel. She usually recommends treatment at IUPUI's Counseling and Psychological Services center, which is free to students. Because of her own experiences, Samantha has a way of putting most people at ease, and her favorite phrase has great meaning to those that she works with – "It's ok to not be ok."

Samantha will graduate next May with an undergraduate degree in health sciences and has an interest in occupational therapy. She plans to apply to the school's OT program later this year and apply the skills she's learned with *Students Who Care* in her future career.







SHRS, Others Help Business Professional Realize Dream of Earning IU Degree

By Jill Jansen

As senior vice president of regulatory affairs at Cook Medical, April Lavender could easily have abandoned her childhood dream of earning a degree from IU. But thanks to SHRS, distance-learning courses, and her own diehard perseverance, Lavender is just a few classes away from realizing her dream.

In 1973, Lavender completed one year at IU Bloomington before moving to Las Vegas to be near family. She enrolled at the University of Nevada-Las Vegas, but working full time prevented her from continuing her education. She eventually moved back to Bloomington and began working for Cook Medical. Her career at the medical device manufacturer spans four decades, during which time she also raised a family.

"Still passionate about graduating from IU, I started night classes at Ivy Tech Community College in 2011 – primarily completing coursework that would transfer to IU – and graduated with an associate of science in professional communications degree in May 2014," Lavender says.

After graduation, she began looking for online bachelor's degree programs to complement her career in healthcare and discovered the school's degree in health sciences.

"I believe this degree is in perfect alignment with both my personal and professional goals," explains Lavender. "With the ever-expanding needs of global health where both the cost and quality of healthcare present enormous societal concerns, this degree program provides students with meaningful knowledge



April (left) attends global regulatory affairs training conference with Cook Incorporated colleague, Lori Nolte.

and skills to support their work in improving the delivery of healthcare."

Lavender, who is scheduled to complete her bachelor's degree in spring 2018, says meeting her goal would not be possible without support from the school, the university, lawmakers, and others who worked tirelessly to ensure availability of distance-learning degree programs for people with full-time careers and family obligations.

"Because of the work of so many to make this possible, I am continuing my journey of lifelong learning, and after all these years, I still love the experience of being a student at IU."

IU Neuro-Wellness Clinic Benefits Students and Patients

By Kristine Miller

The neuro-wellness clinic was developed by the Department of Physical Therapy in 2015 as an experiential service learning program for second-year students. The primary objectives of the clinic are to provide students with an opportunity to apply patient handling skills as part of the neurological rehabilitation curriculum, and to create a meaningful experience for patients with chronic neurological health conditions such as stroke, brain injury, multiple sclerosis, and Parkinson disease.

Now in its third year, the clinic runs during the spring semester and has demonstrated positive results. Feedback and data indicate improvement in students' confidence in patient management, and high levels of patient

satisfaction.

Working to build on this success, the latest clinic was expanded to include



OT services, providing students with a valuable inter-professional experience and more treatment options for patient participants. Collaboration between OT and PT is routine in clinical practice, and the students gained a greater understanding of the complementary nature of the two disciplines. They saw firsthand how each discipline brings a unique perspective for the treatment of chronic neurological conditions.

When speaking about their recent experience one caregiver reported that the "students showed [him] that he could start moving and have success. We now have pictures on our wall to remind him that he can do this - one of him on the parallel bars with students cheering him on, and one of OT students teaching him to blow a kiss. Thanks for all the great help."



OT Students Help Transitioning Prisoners Prepare for Community Life

By Richard Schneider

Occupational therapy practitioners help individuals who have developmental, environmental, physical or mental health challenges participate in everyday activities. But for some IU OT students, that also means assisting individuals who live surrounded by 15-foot-high double chain-link fencing with razor wire on top.

These clients are inmates in the Indiana Department of Correction's minimum-security Indianapolis Re-entry Education Facility. After spending a decade or more behind bars, they haven't had the chance to engage in many daily living activities that most people take for granted. The closest some have come to using a computer or a smartphone is seeing photos of them in ads. One inmate said, "My financial knowledge is so weak. I mean, I've never even had a checkbook."

The Indianapolis Re-entry Education Facility houses a maximum of 400 men who have been convicted of felonies ranging from murder to drug dealing, and who have no more than four years remaining of their sentence.

In 2013, Dr. Jeffrey Crabtree, associate professor in the school's Department of Occupational Therapy, started the Occupational Therapy Community Living Skills Program to help inmates at the facility who have been in prison for at least

RE-ENTRY

Indianapolis Re-entry

IU OT participants, top row (L to R): Pamela Goldman, Morgan Backes, Kelsey Rosswurm, Rebecca Reutman, Dr. Crabtree, Mary Coleman. Bottom row, (L to R): Lainey Goldman, Amy Bercovitz, Katelyn Mathis, Savannah Jilg. Lower right: Oksana Kuliyev.

10 years make a successful transition to living in the community. Under the program, four groups of students work with about a dozen inmates, focusing on technology, socialization, finances, employment, health, and education.

Many were incarcerated before the web was created. They don't have a clue about the internet, and some have never touched a smartphone.

~ Dr. Jeffrey Crabtree

"We decided to create a program that would help - and give preference to - guys in prison for 10 or more years, because these are fellows who have been away from society for a long time," Crabtree said. "Many were incarcerated before the web was created. They don't have a clue about the internet, and some have never touched a smartphone." This program will help the inmates plan for what they need to do - and want to do - when they get out of prison, Crabtree said. "Sometimes that is as simple as reconnecting with family members," he said. "We've worked with guys who have had no visitors for 16 years."

Fear of re-entry into society looms large among the inmates. As one inmate put it: "You'd have to be crazy not to have any fears about going out after this long."

Finding meaningful work and housing after they are released worries the inmates. When asked about his employment prospects, one inmate said, "I'm 62 now, and I'll be 64 when I get out. Who is going to hire me? I have nothing paid into Social Security all these years. I've got no savings account, none of that stuff. I own absolutely nothing anymore. It's all brand-new - and yeah, it's going to be difficult."

Dr. Crabtree (left) sits with former participants of the Indianapolis Re-entry Education Facility Program.



And then there is the technology that now pervades just about every aspect of society. An inmate commented that when he went behind bars, mobile phones were the "size of bricks."

Crabtree says the program is an eye-opening experience for students, most of whom know little about life in prison except what they've seen on television or in the movies.

As one inmate put it, "One of the first things that stood out to me about the class is that it's an awesome feeling to have somebody come in from the outside who's presenting a class or presenting a speech for whatever reason, and they're doing it for us. It's powerful. It's validating."



SOTHMANN DEAN'S LEADERSHIP COMMENCEMENT SPEECH We Are the Next Generation of Leaders in Interprofessional Practice

By Amy Bercovitz, IU MSOT Class of 2017



I feel so honored to represent the School of Health and Rehabilitation Sciences Class of 2017. Congratulations to all of my fellow graduates. It is through our hard work, dedication to our future careers, and participation in service to our community that we come together to share in this joyous celebration.

I see a group of fellow graduates poised to start their careers. In our regalia we look the same, but we come from different backgrounds: physical therapy, occupational therapy, physician assistant, nutrition and dietetics, and health sciences students. Despite the different focuses of our disciplines, each serves as a building block to help patients achieve holistic health; this is why collaboration between our fields is essential.

The importance of interprofessional education and collaboration became an essential part of my graduate school experience. I had the opportunity to help plan and implement events where students could learn about the roles and responsibilities of other healthcare professionals and learn with and from each other in small interprofessional groups. Many of the students gathered here today attended these events, and many attended similar learning events during their time here at IUPUI. This training prepared us to be the force that leads to change in interprofessional practice.

Current literature demonstrates the importance of interprofessional education with healthcare students. This practice leads to collaboration in the workplace, which in turn leads to improved outcomes for patients. For example, I will soon be an occupational therapist where my duties will include encouraging individuals to participate in activities that they want to and need to be doing. My colleague Katie, whom you will hear next, will soon be a physical therapist, where she will work with individuals to regain strength, endurance, and movement. Collaborating with colleagues who possess a separate set of skills will allow us to ensure optimal recovery of the patients we treat.

Here at IU, we have been trained to understand the roles and responsibilities of other healthcare professionals through classroom work, interprofessional learning activities, hands-on experiences in clinical settings, and civic engagement activities. It is our responsibility to now use this knowledge to bridge the interprofessional gap in the workplace.

Even as new graduates, we are the next wave of leaders in our practices, research, and teachings. I would like to thank our professors, who have shown us leadership and encouraged us to become leaders. As healthcare professionals, we must always advocate for our patients and our professions, learn with and from each other, and be the force that causes change that leads to a brighter and healthier future for our patients. I wish you all only the best as your future unfolds.

SOTHMANN DEAN'S LEADERSHIP COMMENCEMENT SPEECH Let's Be the Force of Change in Healthcare

By Katherine Bridgeman, IU DPT Class of 2017

I want to thank our faculty and staff that have made countless sacrifices to help us get to this day. Thank you for sharing your wisdom, knowledge, and passion for caring for people through your respective fields.

On a recent mission trip to Haiti, I was fortunate to meet the dorm father of an orphanage in Haiti - Claudener. Last April, his father had a stroke, and he had to pay most of his life savings for his father to receive medical care at a local hospital.

During a recent physical therapy internship at our local Eskenazi Hospital, I noted that patients with strokes even those who have no means to pay - are often a top priority for physical therapists. Following discharge, they are usually sent to rehabilitation facilities to continue their recovery that started at the hospital - relearning to sit, stand, walk, talk, and care for themselves. Yet, Claudener's father had not received any therapy, as it is not yet typical in Haiti.

Claudener spent hours outside of his full-time job trying to assist his father. When I arrived in Haiti in June, Claudener requested advice that I could share prior to his long mountain trek home to visit his father.

I shared packets of information with illustrations for important stretches and self-care techniques, and demonstrated the best way to help his father walk again, to regain strength and motor function.



Claudener was grateful for the advice, and we communicated via Facebook whenever he had questions about his father's recovery. While I was eager to share what I was learning, I was frustrated for him and the healthcare system in Haiti.

Months later, I stood in a brightly lit hospital room at Eskenazi, practicing interventions for gait recovery with a sweet patient whose physique and demeanor reminded me of Claudener and his father. I just kept wondering: if he had half the resources we have available for patients with stroke here in the United States, how much higher a quality of life would his father have reached by now?

Like Claudener's father, so many in our community, nation, and world lack access to the kinds of resources and treatments you and I are able to provide as graduates of IU. Each of us can use our educations to increase health, wellness, and quality of life. How fortunate that we may serve as advocates of and partners with not only our future patients, but those in the world who may not otherwise receive our services and care.

I have been inspired to witness the way my classmates and fellow SHRS students have practically bridged societal and social divides while serving our community around IUPUI. As Amy mentioned, may we be the next generation of leaders in healthcare and be the force of change in the world. May we, the class of 2017, use our educations, careers, and lives to continue to bridge divides as we provide healing and hope wherever we go from here.



SHRS Celebrates Academic Allstars

The 2017 Student and Donor Recognition Celebration gave SHRS a chance to publicly recognize student success and donor generosity.

























SHRS Annual Student Awards

HEALTH SCIENCES

Dr. Karen Gable Health Sciences Scholarship

Ashlee Griggs, Zachary Weniger

NUTRITION AND DIETETICS

Dr. Sheila Ward Dietetics Fellowship

Alexis Travers, Amy VanDeWielle

Arlene Wilson Dietary Fellowship

Emily Strauss

Dr. Karyl Rickard Pediatric Nutrition Award

Wendy Cruse, Karen Maguiness

OCCUPATIONAL THERAPY

Katherine Belzer Fellowship

Jessica Daniel, Lara Valley Amanda Waniger

Carol Duke Nathan OT Fellowship

Jessica Daniel, Lara Valley

Carol Duke Nathan Leadership Award

Allisa Barabrant

Linda S. Riccio Occupational Therapy

Perseverance Fellowship

Amy Bercovitz

Jeffrey & Diane Crabtree Community-Based

OT Scholarship

Kelsey Rosswurm

Anita H. Slominski OT Fellowship

Sarah Breschenser, Amanda Waninger

OT Alumni Giving Circle

Sarah Myers, Cari Wilson

PHYSICAL THERAPY

Patricia Rae Evans Fellowship

Rachel Krone

Stephen O. Jones Fellowship

Melissa Mailand

PT Community Engagement Award

Jake Nobbe, Andrew Wiseman

Constance Brown Fellowship

Mackenzie Wilson

Frances Ekstam Fellowship

Samantha Bane

William D. Porter Award

Adam Burns, Jacquelyn Fletcher

Katherine Belzer Fellowship

Ryan Brice, Ross Powell Carly Francis, Aaron Gegg, Elizabeth Staats, Taylor Stewart

Zachary Gregory Emerging Leadership Award

Matthew Owens

PT Faculty Choice Award

Emily Fuller, Courtney Goldsbury

Ron and Lauren Cram PT Perseverance Fellowship

Flizabeth Staats

SCHOOL-WIDE AWARDS

Mark Sothmann Dean's Leadership Award

Amy Bercovitz, OT Katherine Bridgeman, PT

Dean's Academic Excellence Recognition Award

Mallory Baker, PT Sarah Myers, OT
Holly Crozier, ND Carah Ochs, PA
Abby Demlow, ND Lauren Stavroff, PA
Alison Kemp, PT Hannah Walker, OT
Rachel Krone, PT Cari Wilson, OT

UNIVERSITY AWARDS

William M. Plater Civic Medallion

Katherine Bridgeman, PT Christina Christenson, OT Katelyn Mathis, OT Jake Nobbe, PT Matthew Owens, PT Andrew Wiseman, PT

IUPUI Elite 50

Amy Bercovitz, OT Katherine Bridgeman, PT Christina Christenson, OT Jacquelyn Fletcher, PT Emily Fuller, PT Courtney Goldsbury, PT Andrew Wiseman, PT

IUPUI Chancellor's Scholar

Morgan Jessup, HS

IUPUI Top 100

Victoria Minnich, HS

IUPUI Women's Student Leadership Award

Jacquelyn Fletcher, PT

Dr. Charles R. Bantz Award for Excellence

Katherine Bridgeman, PT



Study Shows Real-World Massage is Effective Treatment for Low Back Pain

By Richard Schneider

In the first study of its kind, researchers found real-world massage therapy to be an effective treatment for chronic low back pain.

Niki Munk, assistant professor of health sciences and one of the co-first authors of the study, said that the findings are important, given the large number of people who suffer low back pain in the U.S.

Low back pain leads all disorders in years lost to disability in the U.S. Most patients improve rapidly, but one-third report persistent back pain, and 15 percent develop chronic low back pain with significant physical limitations.

More than 50 percent of those who participated in the study experienced clinically meaningful improvements in their low back pain with disability, according to Munk.

"The study can give primary care providers the confidence to tell patients with chronic low back pain to try massage, if the patients can afford to do so," Munk said. Generally, massage is not covered by insurance, Medicaid, or Medicare.

Previous studies of the effectiveness of massage were conducted in controlled research situations. In this study, patients were referred by a physician to a massage therapist. The massage therapist designed and provided a series of 10 massages, at no cost to the patient, in a clinical treatment environment, mimicking the experience of people who choose to seek massage therapy in the real world.

The study also looked at different characteristics associated with patients being more or less likely to experience clinically meaningful change from massage.

Among the study's findings:

- Adults in the baby-boom and older generations tended to be much more likely to experience clinically meaningful changes. Obese patients experienced significant improvements, but those improvements were not retained over time.
- Patients who were taking opioids experienced improvements in their pain from disability in some cases but were two times less likely to experience clinically meaningful change compared to those who were not taking opioids.

While the study results are promising, much more work needs to be done, Munk said: "The fact of the matter is that chronic lower back pain is very complex and often requires a maintenance-type approach versus a short-term intervention option."

Additional investigation is needed to replicate the results of the initial study and to conduct a cost-benefit analysis of massage therapy, Munk said.

"Massage is an out-of-pocket cost," she said. "Generally, people wonder if it is worth it. Will it pay to provide massage to people for an extended period of time? Will it help avoid back surgeries, for example, that may or may not have great outcomes? These are the types of analyses that we hope will result from this study."

The study, "Real-World Massage Therapy Produces Meaningful Effectiveness Signal for Primary Care Patients with Chronic Low Back Pain: Results of a Repeated Measures Cohort Study," was published online in the journal Pain Medicine.



Exercise is Good for Older Adults, But What Kind is Best?

By Richard Schneider

The answer to that question is important. It may mean the difference between an older person living independently or having to move into a facility where someone helps them with daily living activities.

A decline in muscle strength due to age and a sedentary lifestyle is often what undermines older adults' ability to live independently. Having to depend on others to complete self-care tasks places these individuals at risk for placement in a nursing home.

"Exercise, in general, is good for older people," said Chiung-ju Liu, associate professor of occupational therapy. "It's good for their health and good for their independence."

"But when we were helping older people to become more independent, just exercise didn't seem so efficient," Liu said.

Drawing on her background as an occupational therapist, Liu believed something more than resistance training was needed to help older adults manage daily living activities.

She created a 10-week "3-Step Workout for Life" exercise program that turns the homes of older adults into gyms. The older adults perform exercises that are linked to daily living activities.



According to a recent study conducted by Liu, the results at the end of the 10week 3-step workout program were similar to that of a 10-week resistance -only exercise program. But older adults retained the benefits of the 3-Step Workout for Life when they were tested six months later, while the benefits of the 10-week resistance-only exercise program had significantly decreased.

The 3-Step Workout for Life program begins with resistance exercises like bicep curls. The second step links those movements with daily living activities. The third step increases the challenge of performing those activities by having, for example, the older person walk further or at different speeds.

The program converts the benefits from resistance exercises and incorporates it into the things they do in their daily lives, Liu said.

With a study showing the results of the 3-Step Workout for Life program and support from Indiana CTSI CHeP Trailblazer Award in hand, Liu now is working with Crestwood Village, a senior living community on the south side of Indianapolis, to determine if the program can be scaled to larger groups of older people than were involved in the study. Health fitness staff at the facility are learning the 3-Step Workout for Life program with the plan to incorporate it with other fitness programs the facility offers.



SHRS FACULTY & STUDENTS IN PRINT

This list of publications highlights the SHRS emphasis on evidence-based practice, and covers January 2016 - December 2016. Faculty are highlighted in **blue** and students are highlighted in **red**. For information about the individual publications, please contact Dr. Stuart Warden at **stwarden@iu.edu**.

Altenburger PA, Schmid AA, Van Puymbroeck M, **Miller KK**. Impact of yoga on postural stability in stroke. Int J Neurorehabilitation 2016;3:195 (8 pages).

Avin KG, Chen NX, Organ JM, Zarse C, O'Neill K, Conway RG, Konrad RJ, Bacallao RL, Allen MR, Moe SM. Skeletal muscle regeneration and oxidative stress are altered in chronic kidney disease. PLoS One 2016;11:e0159411 (15 pages).

Bayliss AJ, Weatherholt AM, Crandall TT, Farmer DL, McConnell JC, Crossley KM, Warden SJ. Achilles tendon material properties are greater in the jump leg of jumping athletes. J Musculoskelet Neuronal Interact 2016;16:105-12.

Beumer L, Wong J, **Warden SJ**, Kemp JL, Foster P, Crossley KM. Effects of exercise and manual therapy for hip osteoarthritis: a systematic review and meta-analysis. Br J Sport Med 2016;50:458-63.

Brown T, **Crabtree JL**, Mu K, Wells J. The entry-level occupational therapy clinical doctorate: the next education wave of change in Canada? Can J Occup Ther 2016;83:306-16

Brown T, Mu K, **Crabtree JL**. The occupational therapy clinical doctorate: the next development in pre-registration occupational therapy education? Br J Occup Ther 2016;79:725-26

Clark DO, Lane KA, Ambuehl R, Tu W, **Liu CJ**, Unroe K, Callahan CM. Age differences in the association between body mass index class and annualized medicare expenditures. J Aging Health 2016:28:165-79.

Crabtree JL, Ohm D, Wall JM, Ray J. Evaluation of a prison occupational therapy informal education program: a pilot study. Occup Ther Int 2016:23:401-11.

Crabtree JL, **Scott PJ**, **Kuo F**. Peer Observation and Evaluation Tool (POET): a formative peer review supporting scholarly teaching. Open J Occup Ther 2016;4:Article 9 (17 pages).

Crabtree JL, Wall JM, Ohm D. Critical reflections on participatory action research in a prison setting: toward occupational justice. OTJR-Occup Part Heal 2016;36:244-52.

Durand-Sanchez A, **Massie CL**. Non-invasive brain stimulation in the management of traumatic brain injury. Brain Inj Prof 2016;12:16-8

Elenburg JL, Foley BS, Roberts K, **Bayliss AJ**. Utilization of mechanical diagnosis and therapy (MDT) for the treatment of lumbar pain in the presence of known lumbar transverse process fractures: a case study. J Man Manip Ther 2016;24:74-9.

Ferira AJ, Laing EM, Hausman DB, Hall DB, McCabe GP, Martin BR, Hill Gallant KM, **Warden SJ**, Weaver CM, Peacock M, Lewis RD. Vitamin D supplementation does not impact insulin resistance in black and white children. J Clin Endocrinol Metab 2016;101:1710-8.

Friedrich-Nel HS, **Mac Kinnon JL**. Mutual expectations in the postgraduate doctoral supervisory relationship. In: M. F-M, Albertyn R, Aitchison C, Bitzer E, editors. Postgraduate Supervision: Future Foci for the Knowledge Society. Stellenboch, South Africa: Sun Media; 2016. p. 157-70.

Kuo F, Pizzi MA, Chang WP, Koning SJ, Fredrick AS. Exploratory study of the clinical utility of the Pizzi Healthy Weight Management Assessment (PHWMA) among Burmese high school students. Am J Occup Ther 2016;70:7005180040p1-9.

Lahm T, Frump AL, Albrecht ME, Fisher AJ, Cook TG, Jones TJ, Yakubov B, Whitson J, **Fuchs RK**, Liu A, Chesler NC, **Brown MB**. 17beta-estradiol mediates superior adaptation of right ventricular function to acute strenuous exercise in female rats with severe pulmonary hypertension. Am J Physiol Lung Cell Mol Physiol 2016;311:L375-88.

Lee CE, **Warden SJ**, Szuck B, Lau YK. A preliminary study on the efficacy of a community-based physical activity intervention on physical function-related risk factors for falls among breast cancer survivors. Am J Phys Med Rehabil 2016;95:561-70.

Li W, Huang E. An update on type 2 diabetes mellitus as a risk factor for dementia. J Alzheimers Dis 2016;53:393-402.

Li W, Risacher SL, Huang E, Saykin AJ, Alzheimer's Disease Neuroimaging Initiative. Type 2 diabetes mellitus is associated with brain atrophy and hypometabolism in the ADNI cohort. Neurology 2016;87:595-600.

Li W, Risacher SL, McAllister TW, Saykin AJ. Traumatic brain injury and age at onset of cognitive impairment in older adults. J Neurol 2016;263:1280-5.

Linens SW, Ross SE, **Arnold BL**. Wobble board rehabilitation for improving balance in ankles with chronic instability. Clin J Sport Med 2016;26:76-82.

Liu CJ, Jones LY, Formyduval AR, Clark DO. Task-oriented exercise to reduce activities of daily living disability in vulnerable older adults: a feasibility study of the 3-step workout for life. J Aging Phys Act 2016;24:384-92.

Livorsi D, **Comer AR**, Matthias MS, Perencevich EN, Bair MJ. Barriers to guideline-concordant antibiotic use among inpatient physicians: a case vignette qualitative study. J Hosp Med 2016;11:174-80.

Loghmani MT, Bane S. Instrument-assisted soft tissue manipulation: evidence for its emerging efficacy. J Novel Physiother 2016;S3:012 (4 pages).

Loghmani MT, **Whitted M**. Softtissue manipulation: a powerful form of mechanotherapy. Journal of Physiotherapy and Physical Rehabilitation 2016;1:122 (6 pages)

Manske RC, Porter A, Quillin D, **Warden SJ**, Burr DB, Brukner PD. Repetitive stress pathology: bone. In: Magee DJ, Zachazewski JE, Quillen WS, editors. Pathology and Intervention in Musculoskeletal Rehabilitation. 2nd ed. St. Louis, MO: Saunder Elsevier 2016. p. 913-37.

Massie CL, Christenson C, Durand-Sanchez A. Repetitive motor practice impacts neuromuscular system plasticity in healthy and stroke populations. Int J Neurorehabilitation 2016;3:221 (4 pages).

Massie CL, Du Y, Conroy SS, Krebs HI, Wittenberg GF, Bever CT, Whitall J. A clinically relevant method of analyzing continuous change in robotic upper extremity chronic stroke rehabilitation. Neurorehabil Neural Repair 2016;30:703-12.

Meijome TE, Baughman JT, Hooker RA, Cheng YH, Ciovacco WA, Balamohan SM, Srinivasan TL, Chitteti BR, Eleniste PP, Horowitz MC, Srour EF, Bruzzaniti A, **Fuchs RK**, Kacena MA. c-Mpl is expressed on osteoblasts and osteoclasts and is important in regulating skeletal homeostasis. J Cell Biochem 2016;117:959-69.

Munk N. Departing thoughts from IJTMB's Practice & Education Section Editor: critical inquiry, dichotomy vs. continuum, and improving TMB discourse. Int J Ther Massage Bodywork 2016;9:1-3.

Munk N, Shue S, Freeland E, Ralston R, Boulanger KT. Identifying inconsistencies and reporting deficits in Therapeutic Massage and Bodywork (TMB) case reports authored by TMB practitioners: a TMB-adapted CAse REport (CARE) Guidelines audit through 2014. Int J Ther Massage Bodywork 2016;9:3-14.

Neumann CG, Nyandiko W, Siika A, Drorbaugh N, Samari G, Ettyang G, **Ernst JA**. Morbidity and nutrition status of rural drug-naive Kenyan women living with HIV. Afr J AIDS Res 2016;15:283-91.

Organ JM, Srisuwananukorn A, Price P, Joll JE, Biro KC, Rupert JE, Chen NX, **Avin KG**, Moe SM, Allen MR. Reduced skeletal muscle function is associated with decreased fiber cross-sectional area in the Cy/+ rat model of progressive kidney disease. Nephrol Dial Transplant 2016;31:223-

Richey Smith CE, Ryder P, Bilodeau A, **Schultz MA**. Use of an online game to evaluate health professions students' attitudes toward people in poverty. Am J Pharm Educ 2016;80:139 (8 pages).

Robinson M, **Fisher TF**, Broussard K. Role of occupational therapy in case management and care coordination for clients with complex conditions. Am J Occup Ther 2016;70:7002090010p1-6 (6 pages)

Schmid AA, **Miller KK**, Van Puymbroeck M, Schalk N. Feasibility and results of a case study of yoga to improve physical functioning in people with chronic traumatic brain injury. Disabil Rehabil 2016;38:914-20.

Schultz MA, Doty M. Why the history and physical examination still matter. J Am Acad Physician Assist 2016;29:41-5.

Sweigart LI, Umoren RA, **Scott PJ**, Carlton KH, Jones JA, Truman B, Gossett EJ. Virtual TeamSTEPPS(R) simulations produce teamwork attitude changes among health professions students. J Nurs Educ 2016;55:31-5.

Thompson WR, Scott A, **Loghmani MT**, Ward SR, **Warden SJ**. Understanding mechanobiology: physical therapists as a force in mechanotherapy and musculoskeletal regenerative rehabilitation. Phys Ther 2016;96:560-9.

Uzer G, **Fuchs RK**, Rubin J, **Thompson WR**. Concise review: plasma and nuclear membranes convey mechanical information to regulate mesenchymal stem cell lineage. Stem Cells 2016;34:1455-63.

Warden SJ, Fuchs RK. Do selective serotonin reuptake inhibitors (SSRIs) cause fractures? Curr Osteoporos Rep 2016;14:211-8.

Weatherholt AM, Warden SJ. Tibial bone strength is enhanced in the jump leg of collegiate-level jumping athletes: a withinsubject controlled cross-sectional study. Calcif Tissue Int 2016;98:129-39.

Woodhouse L, Gandhi R, **Warden SJ**, Poiraudeau S, Myers SL, Benson CT, Hu L, Ahmad QI, Linnemeier P, Gomez EV, Benichou O. A phase 2 randomized study investigating the efficacy and safety of myostatin antibody LY2495655 versus placebo in patients undergoing elective total hip arthroplasty. J Frailty Aging 2016;5:62-70

Wright CJ, **Arnold BL**, Ross SE. Altered kinematics and time to stabilization during drop-jump landings in individuals with or without functional ankle instability. J Athl Train 2016;51:5-15.

IU OT Students are Early Adopters of 3-D Printing

By Richard Schneider

3-D printing is a new technology that holds great promise for occupational therapists and their clients. IU's OT students will be well-positioned to take advantage of it. Dr. Robin Janson, clinical assistant professor in the Department of Occupational Therapy, brings her research interest in 3-D applications into the classroom and what she calls her OT Maker Lab, where students learn how to use a 3-D printer to make an assistive device.

Janson says the technology will eventually give OTs an incredible tool to design and manufacture adaptive equipment, assistive devices, therapeutic toys, therapeutic tools, anatomical models, orthotic components and more, from the comfort of their own offices.

She recently wrote about the potential advantages that 3-D printing can bring: "Consider, for example, a client with arthritis who lacks sufficient grip and pinch skills because of muscle weakness, joint instability and/or pain. A common approach to restoring independence is to recommend adaptive technology - for example, a bottle opener which can cost \$13 to \$40 and take several days to deliver. Alternatively, an assistive device called the "Plastic Cap Wrench" can be made in the clinic, using a desktop 3-D printer for 25 cents in only 20 minutes."

Janson uses a 3-D printer as an instructional tool, printing upper-extremity skeletal models for students in a kinesiology course to use as study aids. First-year OT student, Liz DeMoss, shared that "Building the models helped me see the intricacies of the upper-extremity bones as well as how the bones all fit together. This helped me understand function and movement of the arm, which was very helpful

when studying for kinesiology."

Janson also uses it to teach anatomical concepts, noting there is one joint motion concept that in the past she was only able to show in photographs or illustrations. With a 3-D printer, she created larger-sized bones and added ligaments created with latex rubber so students could see the joint in action and readily understand the concept.

In 2016, Janson started providing students hands-on experience using a filament-based 3-D printer. In one course she teaches, Janson tasked students with finding an assistive device online that could be downloaded and printed. "I like students having a foundation with 3-D printing and a comfort level with the process so when the time comes, they can be early adopters because they will already have the baseline knowledge."





Patti Evans (c) accepts the award from Lynn D'Cruz (I), SHRS Alumni Association president, and Dr. Becky Porter (r), SHRS interim dean.

Patricia Rae Evans, PT 2017 SHRS Distinguished Alumni Awardee

By Emily Garrott

Each year the School of Health and Rehabilitation Sciences celebrates student excellence and significant alumni achievement. This year, the 2017 Distinguished Alumni Award was presented to one of physical therapy's leading advocates for professionalization as well as the advancement of academic and clinical practice environments.

For Dr. Patricia Evans, fondly known as Patti, attending Indiana University was one of the best decisions of her life: "Being a part of IU was knowing you were a part of an outstanding endeavor to change the world through commitment, excellence, and the highest standards of service," said Evans.

Taking these valuable life lessons to practice, Dr. Evans has led a memorable career spanning over 53 years and roles ranging from direct therapy service provider, educator, administrator, physical therapy association executive, healthcare consultant and, most recently, entrepreneur. In each of these roles, Patti shares that "I carried so many lessons from IU PT throughout my career - in my clinical practice, my academic career, and my professional association endeavors."

A member of the third graduating class of the physical therapy program in 1962, Patti and her peers were heavily influenced by founding director Frances Ekstam. She attributes much of her early success to Ekstam's presence in her life. "My classmates and I were privileged to have dedicated academic and clinical faculty who set the bar high and then did everything to make sure you could reach it," said Evans. Patti continued to set high bars for herself. While advancing in her professional career, she earned two master's degrees and achieved her Ph.D. in 2005. A published author, Patti is currently president & CEO of Continuing Education Records & Resources, Inc. Her passion for changing the field of physical therapy for those that follow stems from a deep belief that each generation inherits a better profession from those who preceded them.

In the spirit of that commitment to foster service and professionalism for the benefit of future students, Patti has supported the Department of Physical Therapy through the Frances C. Ekstam Professorship by providing a significant planned gift.

As this year's SHRS Distinguished Alumni honoree, Patti delivered her final thoughts in an address to promising students and other generous donors to SHRS: "I inherited the world from Indiana University and I hope I can be a part of its never-ending quest for truth and justice."



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* The listed gifts and pledge payments were received during the period of Jan. 1 - Dec. 31, 2016. We apologize for any errors or omissions. For corrections, please contact Emily Garrott at 317-274-5151 or egarrott@iu.edu.

Legacy Society

The Legacy Society formally recognizes individuals who have made significant planned gift commitments to the school. If you have included the school in your estate plans, we encourage you to contact the Dean's Office so we may recognize your generosity.

Patricia Rae Evans **Jane Gerardot Louise and Otis Goggans Stephen Jones James Pellerite** Anita Slominski* Sheila Ward* **Arlene Wilson***

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Maximize Your Gift

SHRS is grateful for the considerable increase in the endowments of the **Dr. Karyl Rickard Pediatric Nutrition Award** as well as the **Dr. Patricia Laurencelle Occupational Therapy Award**. Taking advantage of opportunities available for matching gifts from the IU Foundation during the Bicentennial Campaign, Drs. Karyl and Gene Rickard and Dr. Patricia Laurencelle made generous contributions to increase the amount of student support made possible through their endowed funds. For more information on gifts eligible for this historic match, please contact Director of Development, Emily Garrott at **egarrott@iu.edu** or (317) 274-5151.

SHRS Dean's Sustainers

Dean's Sustainers believe in the importance of annual, consistent giving. No matter the size of the gift, Dean's Sustainers have given to the school for at least 10 years in a row. In recognition of their decade or more of support, Dean's Sustainers receive a customized gift and recognition in school publications.

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SHRS Memorial and Honorarium Gifts

In honor of Austin O. Agho, Ph.D.
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In honor of Carol D. Nathan, Ed.D.
In honor of Andrew and Melanie Wiseman
In memory of Diane Yaffe
In memory of Kathryn (Kay) Young

New SHRS Scholarships

SHRS would like to recognize several generous donors whose newly-endowed scholarships will be presented in the upcoming academic year; specifically the **Dr. Thomas F. Fisher Doctor of Occupational Therapy Scholarship**, **Diane Cohen Yaffe**, **1978 – Memorial Occupational Therapy Scholarship**, and the **Nancy M. Yoshida** '78 Occupational Therapy Scholarship. This increase in available scholarships will expand the OT program to allow more educational opportunities for deserving students. We look forward to honoring the recipients of these awards at next year's celebration, and we thank the donors of these critical funds for their philanthropic support.

Nancy Yoshida, OTR **Embodying the Spirit of Philanthropy**

By Courtney Henderson

"Philanthropy provides the margin of excellence in American higher education. It serves as an endorsement and validation of all that we do as educators and researchers, and we are deeply grateful to our supporters for providing their remarkable vision and creating opportunities across our campus."

~ IUPUI Chancellor Nasser H. Paydar

Beginning in 1989, the IUPUI community has celebrated individuals, corporations, and foundations that have contributed to campus programs through gifts and voluntary services during the annual Spirit of Philanthropy Luncheon. Schools and units on the IUPUI campus each nominate a recipient who has demonstrated a record of exceptional service as a donor or volunteer, and who has left a remarkable legacy in the IUPUI community and beyond. This year, SHRS recognized one of our most steadfast supporters, Nancy Yoshida.

It's hard to imagine the field of occupational therapy and the world of Iditarod dog racing ever crossing paths - unless you are Nancy Yoshida, a 1978 occupational therapy graduate. After working in spine rehabilitation and with patients with swallowing disorders for 17 years, Nancy followed another passion and trained Alaskan huskies, participating in the Alaskan Iditarod Sled Dog Race in 2009. Nancy is a published author, accomplished photographer, and engaged community volunteer. Nancy believes that OT principles can be applied to all vocations



Dean Rebecca Porter (I) and Chancellor Paydar (r) pose with 2017 Spirit of Philanthropy awardee, Nancy Yoshida at the award presentation.

PREVIOUS SHRS SPIRIT OF PHILANTHROPY AWARDEES

2016 Linda Riccio

2015 Karen Gable

2014 Karyl and Gene Rickard

2013 Ron Cram

2010 Donald and Nancy Lamport

2009 Jane Gerardot

2007 Arlene Wilson

2006 Louise Goggans;

Rehabilitation Hospital of Indiana

2005 Anita Slominski; Rock Island Foundation

2004 Frances Ekstam; Sheila Ward

2003 Patricia Rae Evans; Nestle Foundation

2002 Stephen Jones

2001 Elton Ridley

2000 Family & Friends of William D. Porter; Van Ausdall & Farrar

1999 Steven Wodicka 1998 Donald Lamport and adventures in life, and she remains purposefully committed to excellence and high educational attainment in this healthcare field.

In 2016, Nancy created a significant need-based scholarship for incoming students in the OT postprofessional doctorate degree program. SHRS is extremely grateful for Nancy's dedication and commitment to occupational therapy students. This tremendous gift will benefit numerous OT students for generations to come and reflects Nancy's generous spirit of philanthropy.

In addition, IUPUI's Division of Diversity and Inclusion recognized SHRS alumna Louise Goggans. Louise has devoted her life to promoting health and education. Her scholastic accomplishments earned her several scholarships and the opportunity to continue her education at IU, earning her bachelor's degree in nutrition and home economics, her master's degree in education and, ultimately, her Doctorate in Medical Sciences.

We are proud to have SHRS alumni recognized at this year's Spirit of Philanthropy Luncheon and are grateful for their contributions to our school and larger IUPUI community.



FULFILLING the PROMISE

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Interested in making a bigger impact on SHRS during the IU Bicentennial Campaign? Contact Emily Garrott at egarrott@iu.edu for more information on available matches. These exciting opportunities won't be around forever – double your gift to SHRS today!

