

MGH INSTITUTE OF HEALTH PROFESSIONS

A MAGAZINE FOR ALUMNI & FRIENDS OF THE BOSTON GRADUATE SCHOOL FOUNDED BY MASSACHUSETTS GENERAL HOSPITAL



THE DNA OF THE IHP

THE SCHOOL'S INTERPROFESSIONAL EDUCATION MODEL—IMPACT PRACTICE—
IS PREPARING THE NEXT GENERATION OF HEALTH PROFESSIONALS TO IMPROVE
HEALTH CARE.

President Bellack to
Retire in 2017

PAGE 4

School of Nursing
Dean Arrives

PAGE 9

A Mother's Perspective
on Autism Research

PAGE 21

“Students in the Master of Physician Assistant Studies program already are showing their potential to become leaders upon graduation. Their ability to quickly grasp large amounts of complex information is a testament to their determination as well as the MGH Institute’s decision to admit such an impressive group of scholars.”

*— William Gormley, MD, MPH
Professor and Medical Director,
MGH Institute PA Program;
Director, Neurosurgical Critical Care,
Brigham and Women’s Hospital;
Associate Professor, Harvard Medical School*



EDUCATING TOMORROW’S HEALTH CARE LEADERS SINCE 1977



MGH INSTITUTE
OF HEALTH PROFESSIONS

A graduate school founded by Massachusetts General Hospital

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TABLE OF CONTENTS



First Words 4

President Janis P. Bellack

Next Steps 5

Board Chair George E. Thibault, MD

Five Questions 6

Judith A. Fong, MGH SON '68, Trustee

Along the Waterfront 7

Commencement 2016, Gift extends legacy of IHP's first board chair, Faculty member finds insights into the "summer slump," IHP goes green, and more news from campus.

FEATURES

The DNA of the IHP 15

The school returns to its interprofessional roots with its IMPACT Practice model to prepare graduates with the team-based tools to improve patient care.

Scientist, Professor, Mother 21

The work of CSD Associate Professor Margaret Kjelgaard '97 is changing the lives of people with autism—including that of her own son.

Class Notes 24

Last Words 26

Taking the Long Way Home
Jennifer Bottomley, PhD, MS '86, PT

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IT'S BEEN A PLEASURE AND A PRIVILEGE

After much thought and bittersweet reflection, I have decided to retire as President and John Hilton Knowles Professor of the MGH Institute, effective June 30, 2017.

This timeframe seems especially fitting to me, as it will conclude my 10th year as President and will coincide with the Institute's 40th anniversary. Further, we will be graduating our first students from the Occupational Therapy and Physician Assistant Studies programs in May 2017, allowing me the privilege of seeing both programs through to this important milestone.

I feel incredibly appreciative of having been given the opportunity to lead and serve this remarkable institution. It has been an honor to work with our capable and dedicated faculty and staff, and a special joy to interact with and watch our talented students on their learning journeys to become health care professionals. I am deeply grateful for the ongoing support the Institute has received across the Partners system and from the local Charlestown community. I also am truly grateful to our donors who continue to believe in the Institute's mission and the special role we serve in educating the next generation of health care leaders.

The privilege of serving others is a rare and special one indeed. I am thankful to all those whose paths have intersected with mine through the years—the friendships and professional relationships I've enjoyed, the students I've taught and mentored, the alumni whose stories

continually inspire me, and the many, many lessons I've learned along the way.

As I reflect on the remarkable growth, expansion, and success of the Institute, I am especially proud of the fact that the school has blossomed from a collection of excellent programs to a full-fledged academic institution with a strong and distinct identity. The Institute is now well recognized within Partners HealthCare and across the nation as an outstanding institution and a great place to work. By all measures, the Institute is stronger than it has ever been.

I have every intention of continuing to serve the Institute with energy and passion through my final year as President. At the same time, I look forward to a fulfilling retirement devoted to volunteer and consulting opportunities, travel, and time with family. I also look forward to continuing to support the Institute as a donor and passionate champion.

When the time comes, I will leave the Institute knowing it is well situated for a new era of leadership and success. I am confident I can count on the entire Institute community's continued engagement and support in the coming year, as I've been able to do since I arrived in 2007. What a wonderful journey this has been, and one I know will continue in the year ahead.



JANIS P. BELLACK
PRESIDENT AND
JOHN HILTON KNOWLES PROFESSOR

I feel incredibly appreciative of having been given the opportunity to lead and serve this remarkable institution. It has been an honor to work with our capable and dedicated faculty and staff, and a special joy to interact with and watch our talented students on their learning journeys to become professionals.

MOVING FORWARD FROM A POSITION OF STRENGTH

For the past nine years, the MGH Institute has flourished under the leadership of President Jan Bellack. We have significantly grown the programs we offer, the students we educate, and our impact on the future of health care delivery. We've gone from an annual student enrollment of 865 to 1,518 over the past nine years. We've more than doubled our alumni—now 6,700 strong. The Faculty has increased significantly as well, from 70 to 140. Operating revenue has increased from less than \$20 million to nearly \$50 million. The research enterprise has grown from half a million to \$2.5 million, and the physical footprint of the institution has expanded from 65,000 to 160,000 square feet. Along the way, we have launched several new programs, the quality and size of our applicant pool have increased, and the achievements and national recognition of our faculty have enhanced our reputation and prestige.

Throughout these years of growth and change, we've been successful in preserving, and in many cases enhancing, the Institute's strong sense of community. I can say from my personal engagement with this wonderful community, there is indeed a sense of belonging to something that's special, and a strong and collective sense of shared commitment to the Institute's mission, aspirations, and core values.

So, Jan will be leaving the Institute very much in a position of strength. While we are sad to see such a wonderful

leader go, we know that great things remain in store for the Institute. We have the benefit of Jan's leadership for the coming year as we search for the next president. We have engaged the search firm of Storbeck/Pimentel and Associates, who will work closely with a search committee that I will personally chair, comprised of trustees, faculty, staff, representatives from the Partners community, and an alumna and a student [see box below]. We especially want to receive broad-based input to the search process from the full IHP community, including our alumni and other friends. We are also collecting input from the entire IHP community by surveying alumni, students, faculty, staff, and friends of the Institute. In addition, we have created a page on our website, www.mghihp.edu/search, where members of the community can share additional input and receive updates on the search process.

Over the next few months we will take time to reflect on the progress we've made with Jan's leadership, and determine what qualities we wish to seek in the next president to continue to advance the Institute and its impact. During the fall, we will cast a wide net to attract a strong pool of candidates. Once a small group of finalists is chosen, we will invite them to campus to provide an opportunity for the IHP community to meet the candidates through interviews and an open town



meeting. The search committee will collect feedback from the community, review all information, and then forward its recommendation to the Board of Trustees. Our hope is to have finalists identified by early next year, and a new president in place July 1, 2017.

There could not be a better time for the Institute to seek a new leader than now. We are at the top of our game and can look forward with optimism to a future that will present both opportunities and challenges as the worlds of higher education and health care continue to undergo profound change. I am confident we are well poised for a new era of leadership and continued success.

Presidential Search Committee

George E. Thibault, MD, Chair

Peter D'Arrigo, Trustee

Regina Doherty, Associate Professor of Occupational Therapy

Roya Ghazinouri, PT '99, DPT '07 Alumna

Jordan Green, Professor of Communication Sciences and Disorders

Matina Horner, Honorary Trustee and former Board Chair

Jeanette Ives Erickson, Trustee, Senior VP for Patient Care Services & Chief Nurse, MGH, and DNP '11 Alumna

Oswald "Oz" Mondejar, Former Trustee and Senior VP for Mission and Advocacy, Spaulding Rehabilitation Hospital/Partners Continuing Care

Patrice Nicholas, Professor of Nursing and Chair, Faculty Senate

José de Jesus Rivera, Trustee

Valerie Rucker, DPT '18, Student

Jorge Sanchez de Lozada, Associate Director of Information Technology

Jackie Somerville, Senior VP for Patient Care Services & Chief Nurse, BWH

Audrey Tanner, Dean of Enrollment Services

Debra Weinstein, Trustee and VP for Graduate Medical Education, Partners HealthCare

Elizabeth Pipes, Executive Assistant to the President and Assistant Secretary to the Board of Trustees, staff support

FIVE QUESTIONS TRUSTEE JUDITH A. FONG

Trustee Judith A. Fong's long association with the MGH Institute spans decades, beginning when she was a student in the School of Nursing at Massachusetts General Hospital, the Institute's predecessor school. She joined the Institute's Board of Trustees in 2008, and has served on several board committees, including chairing the Nominating and Governance Committee. Her philanthropic support of the Institute has included establishing the Judith A. Fong Nursing Scholarship awarded annually to a student, the annual Judith A. Fong Nursing Faculty Prize, and a gift to the Shouse Building capital campaign.



1 *What can you tell us about your experience as a student at the MGH School of Nursing?*

Judith A. Fong: My favorite aunt was Annia Lowe Giger, who graduated from the MGH School of Nursing in 1947. She was my role model. Simply put, I chose nursing and MGH because of her. Looking back, I don't recall being overly taxed by the academic coursework. Etched in my memory are the many patients I encountered: their diagnoses which caused them to seek help at the MGH, as well as the families in crisis. Confronting life-and-death issues at age 19 was a sobering experience for me. Ultimately, it strengthened my resolve that I'd made the right career choice.

2 *How did your education shape your career and your view of nursing?*

JAF: We graduated understanding how pivotal the nurse's work is to patient outcomes. Thanks to such rigorous clinical placements, we felt prepared to meet any challenge. My own varied career reflects that: ICU, psychiatry, nursing services, health care administration, and consulting.

FONG, CENTER, WITH STUDENTS SONIA HANNA AND SHOSHANA FABER AT THE INSTITUTE'S 2014 GALA.

3 *During your eight years on the board, what have been the most significant changes you have witnessed?*

JAF: When I joined the board, the IHP was still searching for its identity. That has crystallized under President Jan Bellack's leadership and direction through the strategic and measured expansion of the IHP's offerings. As enrollment has grown, the Institute has also improved its financial stability.

4 *You are a generous philanthropic supporter of the Institute. Tell us why you have chosen to make this investment in the Institute and its students and faculty.*

JAF: I feel that supporting the Institute is an investment in all of our futures. We don't know how the delivery of health care will change; only that it will. We endeavor to prepare our graduates for that changing landscape. We employ an

educational model that fosters critical thinking and where disciplines collaborate. May they be innovators as well as adapters.

5 *Several times a year, you travel 3,000 miles across the country to attend board meetings and major events at the Institute. What are the things that excite you most about coming to campus?*

JAF: Clinicians, regardless of the discipline, possess such power and responsibility—to teach, to guide, to give hope, and to heal. Indeed, it weighed heavily on me during my clinical rotations in Bulfinch, White, Baker, McLean, and Boston City Hospital. So when I come to campus, I am inspired by our students and pleased that they have chosen a career in the helping professions. I'd like to think that my board membership speaks to my long-held values of service and improving the human condition.



Three Board Members Complete Their Terms

Three members of the Board of Trustees completed their terms in 2016. Diana Scott, Carol Taylor, and Jim Wolf collectively served 44 years on the Institute's governing board. They were honored at a dinner in May, at which Board Chair Dr. George E. Thibault noted, "The students, alumni, faculty, senior leaders, and trustees have all benefited from the dedication, philanthropy, and vision Diana, Carol, and Jim brought to their role as fiduciary, strategic, and generative stewards of the Institute."

Diana Scott: A Passion for Health Care Access



Diana Scott had considered becoming a physician while attending Harvard University. Even though she eventually chose a

business career, she always remained interested in health care. So it was an easy decision for her to become an Institute trustee in 1998.

"I've always been passionate about people having access to health care, and I could see that the Institute could play a big role by educating new health professionals to help improve that," says Scott, who is chief of human resources at Prologis, a global real estate investment and development company in San Francisco.

Early on, Scott collaborated with former Trustee John Connors to better define the Institute's message and leverage its role within Partners HealthCare. She lauds former President Ann Caldwell's successful efforts to stabilize the school in the early

2000s, and notes how President Jan Bellack has continued this legacy of excellence. "They both have done incredible things to bring the Institute to its current level of prominence."

During her years on the Board, Scott chaired its Finance and Compensation Committee and served on its Executive Committee.

Carol Taylor: A Focus on Growth and Inclusion



Dr. Carol M. Taylor has been impressed by the Institute's growth since she joined the board in 2004.

Taylor, who recently retired as President of cmt Associates, a technology transfer consulting firm working with academic institutions and corporate development partners, marvels at the school's changes over the past 12 years.

"The student population has almost tripled to 1,500, the budget has grown from \$10 million to \$50 million, we've added several new programs, and we now have a campus with seven buildings," says Taylor. "The board and leadership have implemented a well-defined strategy that has allowed the Institute to thrive."

She also notes the two gifts she and her husband, John Deknatel, have given in honor of former board chair E. Lorraine Baugh (see page 14 story about their most recent gift). "We are proud to have helped advance the Institute's efforts to increase diversity within the student and faculty ranks, as well as to educate students on the

importance of being culturally fluent health care practitioners."

Taylor chaired the board's Nominating and Governance Committee, and served on nearly every other board committee over the years.

Jim Wolf: An Emphasis on Financial Stability



Jim Wolf says his knowledge of higher education increased exponentially during his term on the board.

At the time he joined the Board, Wolf was executive vice president and president of Retirement Services at TIAA-CREF, overseeing its pension products. Dr. Matina Horner, who was then the Institute's Board chair, was head of the company's human resources. She knew Wolf's business background and management experience in technology and financial services would serve the Institute well.

"I wanted to learn more about higher education, so joining the Board was a good match," says Wolf, whose 15-year tenure on the board began in 2001. "You never know how long you're going to be on a board, but from the start I have been impressed with the leadership, faculty, and students."

Wolf points to chairing several committees, including the Audit and Risk Management Committee, and working with the school's vice president for finance and administration, Atlas Evans, to help grow the school's financial foundation. "I feel honored to have contributed in a small way to the Institute's ongoing success."



A TROIKA OF “FIRSTS” AT 2016 COMMENCEMENT



HONORARY TRUSTEE AND FORMER TUFTS MEDICAL CENTER PRESIDENT AND CEO ELLEN ZANE ADDRESSES THE NEW GRADUATES.

The first PhD graduates, first honorary degree recipient, and first Dean Emerita conferee highlighted the 2016 Commencement ceremonies held on May 9 at the Boston Convention and Exhibition Center.

Hannah Mercier, an occupational therapist, and Jarrad Van Stan, a speech-language pathologist, received the Institute's first PhD in Rehabilitation Sciences degrees. Dr. Matina S. Horner, Honorary Trustee and former Board Chair, received a Doctor of Humane Letters honorary degree. Dr. Margery Chisholm, the inaugural dean of the Institute's School of Nursing, became the first Dean Emerita.

The Institute's 36th graduation saw 524 students in nursing, physical therapy, speech-language pathology, health professions education, and rehabilitation sciences earn their degrees. The school now has more than 6,700 alumni.

Honorary Trustee Ellen Zane, former president and CEO of Tufts Medical

Center and Floating Hospital for Children, gave the keynote address. Zane, who began her career as a speech-language pathologist, told the more than 2,000 graduates, family, and friends that it is a good time to be entering the health care professions.

“We live in a time when patients want to return from a serious illness to their jobs, their lives, and their homes,” said Zane, who served from 1997–2007 as a trustee of the Institute. “You will enable patients to leave hospitals, long-term care facilities, and other more institutional settings to the one place where every patient wants to be—home.”

The Institute has long been recognized for its excellence in clinical education, but several years ago its leaders recognized that adding a PhD degree, along with hiring several full-time faculty researchers, would raise its research profile in a city that prides itself on producing ground-breaking advances. Mercier and Van Stan were among the first five health professionals who

Two Alumni Receive Awards

The Institute presented two alumni awards during 2016 Commencement.

Roya Ghazinouri, PT '99, '07, received the Bette Ann Harris Distinguished Alumni Award, the Institute's highest alumni recognition. Ghazinouri is the strategic program manager for the Center for Healthcare Delivery Sciences at Brigham and Women's Hospital. Since 2008, she has been the Chief Operating Officer and an advisory board member for Operation Walk Boston, a surgical orthopedic mission that has performed more than 350 pro-bono surgeries in the Dominican Republic.

Katie Baron, NS '08, received the Emerging Leader Award for her role as director of nursing in Sierra Leone for Partners In Health. Since December 2014, she has been the Boston-based nonprofit's lead clinician in the country hit hardest by the Ebola epidemic.

decided to pursue a PhD focused on rehabilitation sciences.

Granting honorary degrees is a new tradition for the Institute. According to Board Chair George Thibault, MD, choosing Horner for her 27-year tenure was an easy decision. “As our longest-standing trustee, she inspired countless others to believe in and serve the Institute,” said Dr. Thibault. “I am confident in saying that the students, alumni, faculty, senior leaders, and trustees of MGH Institute of Health Professions all have benefited from Dr. Horner's dedication, philanthropy, and vision.”

Chisholm, who arrived at the Institute in 2003 as professor and director of the nursing program, became the inaugural dean of the School of Nursing five years later. During her tenure, she successfully launched the Doctor of Nursing Practice and Accelerated Bachelor of Science in Nursing programs before rejoining the faculty as professor prior to her 2015 retirement.

New Nursing Dean Dr. Inez Tuck to Use Myriad Experiences

Throughout her career, Dr. Inez Tuck has pushed the boundaries of what it means to be a nurse. As the new dean of the School of Nursing, she plans to continue its focus on integrating social, emotional, and spiritual healing as part of students' learning experiences.

"Just caring for a patient's physical issues were never enough for me," says Tuck, who joined the MGH Institute in March. "I've always taken a more holistic approach, which I find leads to better outcomes."

She first immersed herself in whole-patient care while earning her master's degree in psychiatric and mental health nursing at the University of Florida-Gainesville. Her graduate work with patients with mental illness exposed her to the emotional and spiritual suffering associated with a stigmatized illness. As part of a qualitative research study, she later observed how families endure as mental illness transforms a son or daughter into a stranger. A decade later, she witnessed a similar type of anguish while helping families cope with the loss of a child to homicide. "The depth of sorrow was stunning," says Tuck. "These are not patients in a traditional sense, so there's often not a place for them in the health care system."

"We need to be thinking about what skills our graduates must have in this changing environment."

Looking at things from different perspectives has always had a prominent place in much of Tuck's work and scholarship. She secured two large grants in the early 2000s from the National Institutes of Health's Center for Complementary and Alternative Medicine to study how mind-body interventions could help people with breast cancer and HIV manage the



TUCK HAS SPENT A CAREER LOOKING AT NURSING FROM A DIFFERENT PERSPECTIVE.

emotional and psychological aspects of their illness. "A spiritual perspective," she found, "helped many people move beyond their circumstances to a higher level of being."

In 2008, she earned a Master of Divinity from Virginia Union University, which provided her an academic framework to support her long-time interest in the spiritual aspect of healing. She also earned a PhD in child development and family relations from University of North Carolina-Greensboro.

Giving Students the Right Tools

Her role at the Institute, as she sees it, is to instill students with knowledge and skills they can use to advance their careers and nursing in general. This includes planning for an ever-evolving health care landscape, one increasingly determined by financial issues, population and community-based care, interprofessional team-based practice, and global issues such as Ebola and the Zika virus.

"We need to be thinking about what skills our graduates must have in this changing environment," she notes. "It's the leaders who are making the policies or heading the organizations who will impact the direction of the profession and the quality of health care in a profound way, and that's what we will continue to do to develop leaders in the School of Nursing."

Right after taking part in her first Commencement in May, Tuck left for her second trip to Moldova, where she is continuing to help develop a baccalaureate nursing program in the former Soviet Republic. She envisions several partnership opportunities that may expand the Institute's offerings in global health, from student exchange and teaching opportunities, to helping develop health policies and nursing curricula.

"This is a phenomenal opportunity to provide our students and faculty with the experiences that will make them better nurses in an increasingly global world."

RESEARCHING THE SUMMER SLUMP

Summer slump, or the loss of academic skills during the summer, is one area of research conducted by Dr. Joanna Christodoulou.

Christodoulou is an assistant professor in the Department of Communication Sciences and Disorders who leads the MGH Institute's Brain, Education, and Mind (BEAM) Team. Her recently published paper in the *Journal of Learning Disabilities* indicates that, on average, the reading skills of struggling young readers erodes during the summer vacation. However, students who were randomly assigned to participate in an intensive summer reading program maintained their reading scores.

"Students with reading difficulties or disabilities are already behind their peers during the school year, so we're focusing on factors that might avoid and reverse this gap," says Christodoulou. "It is important to consider how to help students maintain and grow their reading skills when they're out of the classroom, particularly since there can be a cumulative reading deficit that builds across summers."

She was lead author on the paper, "Impact of Intensive Summer Reading Intervention for Children with Reading Disabilities and Difficulties in Early Elementary School," which she co-authored with IHP faculty members Dr. A.J. Guarino and Professor Emerita Dr. Pamela Hook. It is the first study to evaluate the summer slump with students from all socioeconomic backgrounds who have reading difficulties. Previous studies by other researchers found that children from lower socioeconomic backgrounds are at greater risk of falling behind

than children from families who are better off.

"It is important to distinguish the reasons why children's skills may erode, because that will impact how we address the challenges they face. Likewise, it is crucial to understand how risk factors, such as dyslexia or low socioeconomic status, play a role independently or how they may interact to exacerbate negative outcomes," she says.

Christodoulou will again recruit young students to participate in her research this summer. Her goal is to establish how reading skills grow, stabilize, or erode during this break from school—information currently not well known—for both typically developing and vulnerable readers. She will also explore how reading activities can counteract the summer slump.

Attracting International Interest

Her research focus on reading development and difficulties, combining education and cognitive neuroscience perspectives, has resonated at the national and international levels. Christodoulou, who joined the Institute faculty in 2014, was one of a select few researchers to participate in a recent White House Office of Science and Technology Policy workshop on the latest developments at the intersection of neuroscience and education. She also received the Transforming Education Through Neuroscience Award at the Learning & the Brain Conference in 2014, given jointly with the International Mind, Brain, and Education Society.

"Joanna's research is transformative," says Professor Tiffany Hogan, director of the Institute's Speech & Language Literacy (SAiL) Lab. "She



CHRISTODOULOU'S FOCUS IS WORKING WITH STRUGGLING READERS.

combines the study of neuroimaging and intervention efficacy so we can understand how educational practices affect children's brains and reading outcomes."

Christodoulou has worked since 2005 with famed MIT neuroscientist Dr. John Gabrieli, collaborating on several neuroimaging projects that probe the brain-behavior links underlying reading and dyslexia. "Joanna is a talented communicator who relates to teachers what neuroscience can contribute to education, and makes clear to neuroscientists what students and teachers need to know," Gabrieli says.

By using the tools of education and neuroscience from the unique perspective of the clinical, research, and education worlds, Christodoulou's research shows promise to improve students' reading experiences one summer at a time.

ENROLLING A NEW APPLICATION PROCESS



TANNER'S AIM IS TO ENROLL A STUDENT BODY THAT MORE CLOSELY MIRRORS SOCIETY.

Dr. Audrey Tanner is equally interested when a potential student first learns about the MGH Institute and when that student secures his or her first job as a new graduate.

As the first Dean of Enrollment Services, she is designing an integrated process to improve recruiting and enrolling the best and brightest students. “It’s an approach that will serve the Institute well, as it is collaborative and attentive to the nuances and needs of individual programs,” she explains.

Tanner, who previously was associate vice president for enrollment management at the California Institute of Arts, is about halfway through completing the process. She is working with marketing, student services, financial aid, and other departments to ensure the IHP accomplishes two of its strategic goals: enrolling a student body that more accurately reflects the overall population students will serve when they graduate, and maintaining the Institute’s strong fiscal health.

The Institute has seen explosive growth over the past nine years, doubling the student population to more than 1,500 by adding the Accelerated Bachelor of Science in Nursing, Doctor of Occupational Therapy, Master of Physician Assistant Studies, and other new programs. Yearly applications have almost tripled to more than 3,000, and increasingly the pool is composed of applicants from across the country.

“Each program has its own goals, so we want to be more deliberate about what kinds of applicants we attract,” says Tanner, who arrived at the Institute last fall. “At the same time, it is important to provide a consistent and seamless high quality experience by connecting the dots between enrollment services and the programs to maximize every student’s experience.”

Clothing—Functional and Fashionable

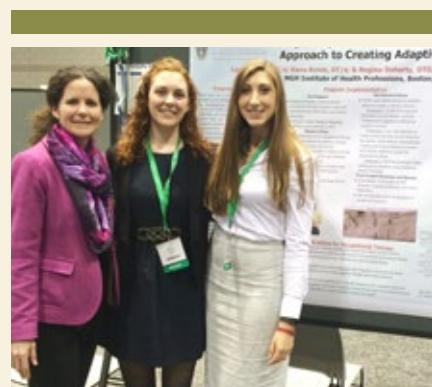
Learning in class about interacting with patients is one thing. Having the chance to create and implement something that can positively impact a person’s life is something altogether more satisfying. That’s what Doctor of Occupational Therapy students Hana Rovin and Loren Fields discovered when they completed a fellowship in the MIT Open Style Lab.

Under the mentorship of MIT faculty Grace Teo and Alice Tin, and IHP Associate Professor Regina Doherty, the OT students teamed up with MIT engineering and design students to create apparel that is both functional and fashionable.

Rovin’s team designed “Heads Up”—a head scarf and suspender system that provides a stylish alternative to a neck brace. Field’s team designed “EverTuck,” an adaptive shirt tucking system, and “Retract-a-Loops,” an adaptive pant closure system.

“We’re taught how to interact with clients, how to assess functional abilities, and the importance of viewing each individual not by their disability but by all factors that make them a unique individual,” says Fields. “When faced with a client who has put their faith in you to create something to improve their daily life, we were able to utilize information from our coursework, research, and interprofessional collaborations to design the best prototype.”

Fields, Rovin, and Doherty presented the projects in April at the American Occupational Therapy Association’s National Conference in Chicago, where Fields’ Retract-a-Loops won third place in the student category at the 42nd Annual Maddak Awards Competition for Product Design.



DOHERTY, WITH ROVIN AND FIELDS, PRESENTED AT THE AOTA'S NATIONAL CONFERENCE.

Campus Goes Green

The MGH Institute is becoming increasingly green.

Recently, the Catherine Filene Shouse building became the oldest in the Charlestown Navy Yard to be designated as a Leadership in Energy and Environmental Design (LEED) certified green building, thanks to several environmental initiatives spearheaded over the past year by Operations Manager Diane Nolan and CBRE Facilities Manager Ron Uliano.

Other recent green measures across campus include replacing fluorescent lighting throughout campus and automating the lighting, sanitary, and HVAC systems, which turned a \$53,000 investment into a \$370,000 savings. Green-label, environmentally friendly cleaning, gardening, food, and maintenance products have been adopted. Composting and recycling bins are now located throughout campus, while the community dropped off hundreds of batteries and electronics that can't be disposed of in landfills.

A bicycle repair and maintenance station was installed to accommodate the growing number of people who bike to campus. A recent survey of 469 students and employees showed that almost half use public or other alternative transportation. Water-bottle refill stations have saved the equivalent of more than 42,000 bottles from ending up in landfills, while waterless urinals are saving even more.



STUDENTS SOAR TO TOP WITH AIR FORCE SCHOLARSHIP

For Patrick (Andy) Carrera, receiving a scholarship from the U.S. Air Force isn't just about having much of his nursing degree paid for and getting a monthly stipend. It also means being able to openly serve in the military as a gay man.

"I was very fortunate that 'Don't Ask Don't Tell' was repealed four years ago, and in talking with my recruiter, I learned that I would be accepted and welcomed, not just be tolerated," recalls Carrera, a second-year Master of Science in Nursing student whose partner served in the U.S. Navy. "Knowing that made a big difference when I was deciding to apply."

He is one of six nurse practitioner students who have received the Air Force's Health Professions Scholarship. It's no accident, says recruiter Master Sergeant Robert Parent, that so many MGH Institute students have made the grade, starting with 2012 graduate Kayse Eichelberger Kaufmann.

"You need to do a lot of critical thinking to care for patients, and the IHP's program is doing a great job of preparing us to become nurse practitioners who will do well in a military environment."

— PATRICK (ANDY) CARRERA

"Kayse made the Institute popular with the selection board, not only for her great work while in active duty, but she was also the top of her class in Commissioned Officer Training," Parent notes. "The Institute has provided some of the top all-around applicants who, once they have joined the Air Force, have excelled as nurse practitioners."

For Stephanie Frycki, following in her father's military footsteps—he served in the Navy—played a major role in her decision to apply. "I have a deep respect for the country, and it's close to my heart to be in the armed forces," says Frycki, who graduated in May.



FRYCKI AND CARRERA ARE THE LATEST IHP STUDENTS TO PARTICIPATE IN THE MILITARY PROGRAM.

The school's other scholarship recipients include Angela Kaufmann '13, a pediatric NP; Meredith Wolf '13, a family NP; and Alissa Vigil '15, a women's health NP.

Carrera, who like Frycki is in the pediatrics track, plans to do a two-year stint at an Air Force base in Europe and take advantage of travel opportunities while serving his country. He is confident his education is readying him for his future role.

"You need to do a lot of critical thinking to care for patients," Carrera says, *"and the IHP's program is doing a great job of preparing us to become nurse practitioners who will do well in a military environment."*

Students from IHP and Harvard Medical School Collaborate on Opioid Epidemic

Meredith Smith was in high school when she saw her older brother almost overdose. Her brother is in recovery now but like many people in her position, Smith worries that her brother may always struggle with addiction.

She was among several dozen students, faculty, and staff from the IHP and Harvard Medical School who attended a presentation in April to learn more about the recent surge in opioid-related deaths. "This issue is both personal and professional for me," says the first-year Master of Science in Nursing student, "but it affects everyone. There are no boundaries."

The presentation by Alexander Walley, MD, MSc, assistant professor of medicine at Boston University School of Medicine, provided naloxone rescue training as part of an overall overdose prevention strategy. Naloxone, commonly known as Narcan, is a medication long used by emergency responders to reverse the effects of an opioid overdose.

"Our goal was to bring students of different backgrounds and practices together."

— NURSE PRACTITIONER STUDENT TORY HILL

In 2000, 338 people in Massachusetts died from opioid overdose. By 2014, that number more than tripled to 1,099. And for every death, hundreds more people are hospitalized. Between 2007 and 2014, the number of opioid-related cases in Massachusetts increased from 31,000 to 57,000.

Nurse practitioner student Tory Hill, along with medical student John Weems of the Student Leadership Committee at the Harvard Medical School Center for Primary Care,



BU MEDICAL CENTER ASSISTANT PROFESSOR OF MEDICINE DR. ALEXANDER WALLEY (FAR RIGHT) DISCUSSES THE OPIOID EPIDEMIC WITH SEMINAR PARTICIPANTS, WHO INCLUDE IHP NURSE PRACTITIONER STUDENT VICTORIA HILL (LEFT CENTER) AND HARVARD MEDICAL SCHOOL STUDENT JOHN WEESE (RIGHT CENTER)

organized the campus event. "Our goal was to bring students of different backgrounds and practices together," Hill says, noting it also attracted Institute students in occupational therapy, physician assistant studies, and both the bachelor's and master's in nursing programs.

Having seen addiction's insidious effect on several of her relatives, first-year OT student Jacquelyn Westby considers it vital for OTs to know how to work with people struggling with addiction. "This is a large piece of how we, as OT professionals, can reach clients and their families," she says.

School of Nursing Instructor Amy Fuller considers it extremely important for nurse practitioner students to learn about the current epidemic. "Every one of them is going to be prescribing," she says, adding that all students and clinicians need to stay abreast of changing laws such as one recently signed into law by Massachusetts Gov. Charlie Baker that limits

first-time opioid prescriptions to seven days.

Whether they act as healers or educators, Dr. Walley says that health professionals from all disciplines are a key lifeline for people with addiction. "Physicians have a limited amount of time to spend with patients," says Walley. "Whether it's a nurse or a PA doing medication reconciliation, or an occupational or physical therapist on a home visit, other health professionals often know more about what is going on with a patient. They have more opportunities to catch a potential addiction issue."

Also this past spring, the Schwartz Center Educational Rounds featured students Hannah Kobett (PA), Natalie Albrittain-Ross (SLP), and Diana Remlinger (NP), who presented "Caring for Patients With a Substance Abuse Disorder." The panel discussion was facilitated by Sarah Coughlin, director of the Charlestown Substance Abuse Coalition at Massachusetts General Hospital.

Fifteen Years of Dedication

Dean Carolyn Locke's commitment to IHP students started before her first day on the job.

"[Former President] Ann Caldwell had asked me to attend an executive meeting so I could get a feel for the IHP, and it was on 9/11," Locke recalls of that fateful day. "After the towers went down, everyone—including me—helped the students process such a terrible tragedy."

Almost 15 years later, Locke is leaving her position as Dean of Student Services and Alumni Affairs, secure in the knowledge that she has played a vital role in the school's success. She and her team of seasoned professionals were front and center when applications tripled and the student population almost doubled. Recently, she added alumni services to her responsibilities.

Her commitment to Institute students often extended beyond the campus. Several years ago she began inviting new international students to her South Shore home.

"I served Fluffernutter sandwiches [peanut butter and marshmallow fluff on Wonder bread], Jell-O, and chips to make them feel welcome in their new city and to give them a taste of America—literally," Locke says. "I've always found it important to help students feel comfortable at the Institute so they can do their best."



Locke was recognized by Board Chair Dr. George Thibault in May.

GIFT TO CONTINUE LEGACY OF FORMER TRUSTEE



THE GIFT FROM TAYLOR AND DEKNATEL RECOGNIZES E. LORRAINE BAUGH, HONORARY TRUSTEE AND THE INSTITUTE'S FIRST BOARD CHAIR.

The success of the E. Lorraine Baugh Visiting Faculty Series over the past four years has been so positive that a new endowed fund will cement it as part of the MGH Institute's annual educational offerings.

Honorary Trustee Carol M. Taylor and her husband, John H. Deknatel, created the fund to build on the success of their initial 2012 gift that recognized Baugh, the school's long-serving trustee and first chair of its Board of Trustees, and supported initiatives to advance the Institute's diversity goals and priorities. While future activities may include a continuation of the visiting faculty lecture series, the fund also may be used for faculty research, recruitment to enrich the diversity of the faculty, student scholarships, or other projects related to diversity and inclusion at the Institute and in the health professions.

"We are delighted to support the Institute's mission of promoting a

culture of inclusive excellence, by educating culturally fluent health care leaders, providing role models, and creating a welcoming campus climate for students, faculty, and, staff," says Dr. Taylor, who recently stepped down from the board after 11 years. "Lorraine continues to serve as an inspiration and beacon on issues of diversity, and we are delighted to continue to honor her example."

President Jan Bellack notes this new award complements the Institute's continued efforts to enhance student, faculty, and staff diversity, as well as educate students on the importance of being culturally fluent health care professionals upon graduation. "This extraordinary gift by Carol and John is typical of their investment in the MGH Institute," says Dr. Bellack. "Given Lorraine's influence in shaping and championing the Institute's commitment to diversity and inclusion, I can think of no better person to honor with this endowed fund than Lorraine."

THE DNA OF THE IHP



IMPACT
PRACTICE®

INTERPROFESSIONAL
EDUCATION IS PREPARING
A NEW GENERATION OF
HEALTH PROFESSIONALS
TO CHANGE THE WAY
CARE IS PROVIDED.

by Alyssa Haywoode

Felice Regan sat in a wheelchair in her living room speaking with five young guests. It could have been a book club meeting. Or Regan, an artist who creates silkscreen prints, could have been talking about her artwork, which covers the walls of her Somerville apartment.

Instead, it was interprofessional education (IPE) in action.

The guests were students from four of the MGH Institute's programs: nursing, physical therapy, occupational therapy, and speech-language pathology. And on that day, Regan—a client in the Institute's Aphasia Center—was acting as a health mentor who agrees to talk about health challenges to help educate students.

"She came to school and we got a very detailed history," Julie Wolfman, a first-year Doctor of Occupational Therapy student, explains about meeting Regan through the health mentor program. "The second part: We went to her house."

Meeting Regan at her home was a chance for Wolfman and her fellow students to practice their assessment and communication skills. They assessed her apartment to see what changes might be needed to help Regan, who had a stroke several years ago. The students got to hear each other's questions and concerns. And they learned from seeing the changes that Regan had already made to her apartment—such as adjusting table heights and anchoring furniture to the wall—to adapt her home to her needs.

It's an example of how health professionals, working in a team, can provide more efficient and effective care that's rooted in the realities of patients' lives.

Interprofessional Roots

Interprofessional education has always been part of the MGH Institute's DNA. When the school opened its doors to students in 1980 three years after its founding, it embraced an interprofessional model, featuring faculty members who taught interprofessional courses in research, statistics, ethics, death and dying, and other areas in addition to discipline-specific classes. But despite these initial efforts, says Leslie Portney, the dean of the School of Health and Rehabilitation Sciences, "We still tended to build and operate our programs in silos."



IMPACT teams go the homes of health mentors, like Felice Regan, to better understand how an integrated plan can improve a patient's life.

While this silo approach had been the standard educational model for decades, the health care world was beginning to notice it no longer worked particularly well. By 2001, an Institute of Medicine (IOM) report, "Crossing the Quality Chasm: A New Health System for the 21st Century," sounded an alarm: "Quality problems are everywhere, affecting many patients. Between the health care we have and the care we could have lies not just a gap, but a chasm."

Several other reports in subsequent years continued to reflect these concerns. A 2010 report, "Educating Nurses and Physicians Toward a New Horizon: Advancing Inter-Professional Education in Academic Health Centers" by the Josiah Macy Jr. Foundation and the Carnegie Foundation for the Advancement of Teaching, addressed the importance of team-based care: "Health care delivered in teams by nurses, physicians, and other health professionals not only improves quality, but also leads to better patient outcomes, greater patient satisfaction, improved efficiency, and increased job satisfaction on the part of health professionals."

Health educators heeded the call. The Interprofessional Education Collaborative (IPEC)—six national education associations of health profession schools—released a report in 2011 identifying four core competencies for interprofessional collaborative practice: values and ethics, roles and responsibilities, interprofessional communication, and teams and teamwork. That same

year, the MGH Institute launched CIPSI, the Center for Interprofessional Studies and Innovation. Its goal was to make interprofessional education stronger and more meaningful to students in order to yield the long-term payoff of better patient care.

"It was easier said than done because it meant that every program had to change something, but there was a strong commitment from the whole community that this was an important thing to do," Portney says. "We were really talking about philosophically changing the context of how our students learn so they understood the need to collaborate with others in order to do their job well."

principles of interprofessional practice within all programs. This overarching approach is called IMPACT Practice, a program that includes multiple learning activities and experiences for students and emphasizes the importance of collaboration in patient care. Students participate in interprofessional teams as part of several courses, with a focus on application of interprofessional care in a variety of venues.

The idea was to create learning teams of five or six students from multiple disciplines that would stay together during their first year and immediately expose them to team-based care methods. "It allows them to build a familiarity and respect for one another's disci-



A Team-Based Approach

Associate Professor Mary Knab headed an IPE task force that brought faculty from all the programs together. "The vision of that original task force was 'Let's return to something that will allow all of our students to learn together, and we will evaluate and improve it as we go,'" says Dr. Knab, a faculty member in the Center for Interprofessional Studies and Innovation who previously spent over 15 years in the Department of Physical Therapy.

The group conceptualized a learning series based on the IPEC competencies for collaborative practice. It worked to solve scheduling and resource challenges, which led to the creation in 2013 of three one-credit classes. These classes became the foundation for conceptualizing a new context for learning across the Institute, to infuse the

"IMPACT Practice allows [students] to build a familiarity and respect for one another's disciplines and expertise from the beginning of their education—and that makes a big difference."

— MARY KNAB, IMPACT PRACTICE PROGRAM DIRECTOR

plines and expertise from the beginning of their education," says Knab, who is the program's director, "and that makes a big difference."

"I had met occupational therapists before, but I wasn't really sure exactly what they did," said Master of Science in Nursing student Bryan Godduhn, whose team also included students in physical therapy and speech-language pathology. "I had a basic idea, but when she actually explained things, and then we learned about it in different activities, I was actually blown away by it."

Dr. Laura Plummer, an assistant professor in the Department of Physical Therapy, noticed changes throughout campus. "Before we had IMPACT, even though students were in the hallways with each other, they didn't really get opportunities to interact and understand what each



Teams of students have gained patient experience since 2011 in two Interprofessional Dedicated Education Units at Massachusetts General Hospital.

other was learning,” she says. “This has made it possible for them to interact and learn about and with other team members.”

Part of the process is meeting with health mentors like artist Felice Regan. Students also go through lab simulations handling challenging cases that are presented by actors, called standardized patients. Real-life patients and their families come to the classrooms and labs to provide another perspective, while team-based care is reinforced during clinical experiences.

“We do some discussion of scenarios that the students have faced, mostly in their clinical practice, but sometimes people bring up things that happen in their real life with family members,” explains Lynne Brady Wagner, an adjunct faculty in the Department of Communication Sciences and Disorders and the director of the Stroke Rehabilitation Center at Spaulding Rehabilitation Hospital. She regularly talks with her students about open communication and approaching things with genuine collegiality and curiosity about how decisions are made by health care colleagues. “It’s really about what’s in the best interest of the patient.”

FOR STUDENTS, MYRIAD OPPORTUNITIES FOR TEAMWORK

Interprofessional education begins even before students arrive for their first day of class.

All incoming students read a book focused on the patient/health care provider relationship. Two years ago, the book was *Still Alice*, Lisa Genova’s novel about a professor diagnosed with Alzheimer’s disease. This academic year the book was Genova’s *Inside the O’Briens*, a novel about how Huntington’s disease affects a fictional family living in Charlestown. “In most cases, our students meet their patients and clients only when they are seeking care,” notes Peter Cahn, associate provost for academic affairs, who is part of the team that spearheads the common reading program. “The reading assignment gives all incoming students the opportunity to gain perspective on how an illness transforms a family and a community so they learn to appreciate the person, not just the patient.”

The IMPACT Practice teams, 60 groups of five to six students, initially meet the first week of the fall semester’s classes at the annual Community Impact Day. After a team-bonding experience they spread out across Boston doing service work. For Julia Wolfman, that meant going to an assisted living facility where they made blankets with residents. “It was a cool way for us to bond on a different level,” Wolfman says of her fellow students, adding that the living center residents were chatty and really appreciative participants who provided students with vital perspectives of their lives and health.



The annual Infant Development Day was initially created for physical therapy students. It now includes students in nursing, occupational therapy, physician assistant studies, and speech-language pathology.

Audrey Clark, a first-year nurse practitioner student, says her favorite part of the IMPACT classes were the two simulations her team participated in during their second semester. "We were given scenarios in which our patients did not want to do what we were advising them to do and these experiences made me deeply examine what patient-centered care means," she relates. "Does it mean that I always go along with what the patient wants? I don't think so. But does it mean that I always stick to what I think is scientifically best for the patient regardless of patient desires? No. Patient-centered care is collaboration between patients—who are experts about themselves—and the provider who is an expert on the science of health care. At its core, patient-centered care is about deep respect for the patient as a complex and living being."

Dr. Rosann Ippolito, the PA student education coordinator at Brigham and Women's Hospital and an IMPACT course instructor, has seen first-hand how students have changed. "Initially they are so engrossed in their own program, learning the nuts and bolts of their craft," she says, "but I have seen over the course of the two semesters

that there was a gelling not only professionally but also personally. The evolution has gone from learning what the others' roles are to actually using what they learned from mutual collaboration in actual patient care scenarios."

In three short years, IMPACT Practice has grown to reflect the breadth of interprofessional activities, both in and out of the classroom, in which students engage as part of their entire educational experience. School of Nursing Associate Professor Dr. Patricia Reidy is using a three-year grant of almost \$1 million, from the U.S. Department of Health and Human Services, Health Resources and Services Administration through its highly competitive Advanced Nursing Education program, to create a series of interprofessional education opportunities. Combined, these initiatives have spurred the Institute to expand its core competency framework throughout all the programs to incorporate six domains that go beyond the IPEC competencies—Professionalism, Patient-Centered Care, Communication, Critical Thinking, Systems-Based Practice, and Leadership—that school leaders believe a successful health care provider must possess.

The IMPACT program also provides context for learning occurring in clinical practice, such as the two Interprofessional Dedicated Education Units at Massachusetts General Hospital. In the fall and spring semesters, multiple student teams work with nurses, speech-language pathologists, physical therapists, or occupational therapists to focus on the IPEC competencies. "It's interprofessional education at the heart of where health care happens," says Patricia Fitzgerald, the nursing director of the adult medical unit on Bigelow 11, one of the two units. "It gives students a big-picture view of the patient and all the people who are involved in caring for the patient."

For Ryan McGovern, a nurse practitioner student, a key part of his interprofessional education was working in the Crimson Care Collaborative. In partnership with Harvard Medical School and several neighborhood clinics, the CCC pairs IHP students from nursing and physician assistant studies with Harvard's medical students, overseen by faculty clinicians from both schools, linking the health care and medicine worlds—another gap cited by reports from the Institute on Medicine.

Being educated by and with other health care professionals expanded McGovern's practice and taught him to ask questions and integrate different approaches into his care. "As you examine patients together, you learn each other's styles," he says, adding that he discovered the myriad mental health and community resources available to patients. "Their health care needs are met, their social needs are met, their economic needs are met. And it's a really nice comprehensive service that they get."

Other opportunities to reinforce and strengthen interprofessionalism include the Ann W. Caldwell President's Lecture: Interprofessional Rounds for second-year students, Infant Development Day (more commonly known as "Baby Day"), and the Schwartz Center Educational Rounds held twice each semester. For the past four years, the International Innovation Project has brought together students from the Institute, Seton Hall University in New Jersey, Metropolitan University College in Denmark, and Metropolia University of Applied Sciences in Finland, with each college taking turns hosting a five-week-long team collaborative experience. In fall 2015, a pilot project called the Spaulding-Institute of Health Professions Comprehensive Aphasia Program (S-IHP's CAP) debuted, with students and faculty in the speech-language pathology and occupational therapy programs participating in an intense aphasia therapy program at Spaulding and on the Institute's campus with patients who have had strokes.

On the near horizon, there are plans to create an on-campus interprofessional clinical center that would merge the school's existing speech, aphasia, physical therapy, and occupational therapy centers while adding physician assistant and nursing services. This will create a full range of client services where students, under the supervision of faculty, can work with and learn from each other to provide coordinated interprofessional care that meets the needs of their patients.

A Look to the Future

“This is not about totally smudging together the professions and saying they’re all the same,” Dr. George Thibault said in a workshop at the 2012 Global Forum on Innovation in Health Professional Education. “We still need to rigorously defend and improve the education specific to each profession while we accomplish interprofessional education.”

Thibault, chair of the Institute’s board of trustees, is a Harvard Medical School professor emeritus and president of the Josiah Macy Jr. Foundation, which is dedicated to improving the education of health professionals. Writing in the Institute’s 2010 Annual Report, he and President Janis Bellack previewed what the school would strive to accomplish in the coming years.

“Our renewed commitment to interprofessional education and practice will allow the Institute to respond more quickly to the strategic changes taking place in care redesign and delivery across the Partners HealthCare system and beyond,” they wrote. “Long-standing barriers within both the education and health care worlds will not be easy to overcome. These include deeply rooted cultural differences between the professions, differences in educational pathways and degree levels, and logistical issues.

“Nevertheless,” they continued, “we are committed to designing novel and creative ways to ensure interprofessional education is an integral part of each of our academic programs.”

The MGH Institute is well on its way to achieving that goal. ■



Students in the nurse practitioner and physician assistant studies programs collaborate with Harvard Medical School students as part of the Crimson Care Collaborative.



Standardized patients, who are actors who present a particular condition, give teams another opportunity to work together to devise a plan of care.

SCIENTIST, PROFESSOR, MOTHER

Margaret Kjelgaard is working to improve the lives of people with autism—including her son.

BY JOANNE BARKER

The world was too loud for Walter. He could not stand everyday sounds like his mother doing dishes or his sister's cough. The noise of the shopping carts at Market Basket triggered tantrums; on other days, new store decorations might prove equally upsetting.

"You never knew when he would have a melt down," says Margaret Kjelgaard of her son, who has autism.

Dr. Kjelgaard, an associate professor in the Department of Communication Sciences and Disorders, had been researching autism for a decade before Walter was born. "He changed the direction of my research," she says. "When he was younger, life was really difficult for him. My question became, 'Why?' Why, for instance, was Walter so upset by sounds most of us barely noticed? Why would the sun at the beach overwhelm him when other kids could just have fun?"

Kjelgaard's research until then had centered on prosody, the inflections and rhythm of speech, and whether an inability to decode those signals could explain why communication was so difficult for many people with autism. For practical reasons, she studied children with mostly intact language skills because they could understand complex instructions and talk to her as she measured their judgment and reaction times. Not so with Walter.

Now 10 years old, Walter can understand much of what people say to him but he can only put together a few words of his own. About 30 percent of children with autism have minimal verbal skills, posing significant



MUCH OF KJELGAARD'S AUTISM RESEARCH IS INFORMED BY—AND WITH—HER SON, WALTER.

Even as autism research proliferates, children like Walter remain under-studied and poorly understood.

challenges for researchers. They often have behavior issues that thwart research protocols, and most measurement tools are designed for higher-functioning kids. So even as autism research proliferates, children like Walter remain under-studied and poorly understood.

"My son's issues made me increasingly interested in understanding lower-level sensory processes," says Kjelgaard, who is also a research scientist at MIT's Department of Brain and Cognitive Sciences and the McGovern Institute for Brain Research. She started to wonder whether the language problems associated with autism might stem from an underlying problem distilling sensory input such as sound, sight, and touch.

Kjelgaard shared her thoughts with a colleague, Professor John Gabrieli, an internationally renowned scientist who is the Grover Hermann Professor at the Harvard-MIT Division of Health Sciences and Technology, and is the director of the Athinoula A. Martinos Imaging Center at the McGovern Institute. He introduced her to Pawan Sinha, a professor of vision and computational neuroscience in the Department of Brain and Cognitive Sciences at MIT, who had arrived at some of the same questions through a very different route.

Sinha is internationally renowned for his work in vision, most notably as the founder of Project Prakash, a charity that provides treatment for curably blind children in India (which has more than 25 percent of the world's 45

“Imagine how overwhelming it would be if everything was seen, heard, and felt as if it were fresh and new. It would affect a person’s ability to learn and interact with others.”

— MARGARET KJELGAARD

million blind people). Through observing children as they first learned to see, he noticed some patterns that had been documented in children with autism. Both groups had trouble integrating individual pieces into a larger visual puzzle; they might recognize a tree but not be able to see it as part of a forest.

Over time, the Prakash children learned how to integrate visual elements; children with autism did not. “What we were finding was a difference in the ability to make use of dynamic information,” says Sinha. When he met Kjelgaard, he had already started thinking that autism might stem from a problem integrating information as it changed with the environment.

Finding Common Ground

Despite their different backgrounds, Sinha and Kjelgaard found common ground almost immediately. “We quickly realized we shared many things,” says Sinha. “Instead of labeling autism a social disorder, we wanted to explore whether there



KJELGAARD AND SINHA BELIEVE THEIR PREDICTIVE IMPAIRMENT IN AUTISM HYPOTHESIS WILL CHANGE THE WAY RESEARCHERS LOOK AT THE CONDITION.

might be some underlying processing difficulties that contributed to its seemingly disconnected traits.”

Sinha’s lab was a treasure trove of research capabilities for Kjelgaard. “His lab is a great place to do this work because there are scientists from multiple disciplines such as those in computational cognitive neuroscience who are skilled at using machine learning, computer vision and signal-processing methodologies,” she says. For Sinha, Kjelgaard brought a new level of wisdom to the lab. “She has a more intuitive, deeper understanding of the kind of challenges children with autism are facing.” As a behavioral scientist with a mother’s knowledge of autism, Kjelgaard could design experiments that work for children who easily panic.

Using seed grants from the MIT Simons Center for the Social Brain, she and Sinha began considering the common features of autism: challenges with language and communication, social interactions, and sensory processing, to name a few.

From there, they hypothesized that an impaired ability to predict what will happen next might be at the root of many of autism’s symptoms, a collective condition they call Predictive Impairment in Autism.

“Researchers and clinicians have traditionally looked at autism as a laundry list of unrelated symptoms, but we believe they need to be studied as the outcomes of a single, unifying problem,” Kjelgaard says. “The brain is designed to make predictions in all aspects of life and if one can’t predict how things are going to work out, as we think is happening in autism, it’s going to prevent them from navigating in a world that’s constantly changing.”

In 2014, along with six other scientists from Sinha’s lab, they published “Autism as a Disorder of Prediction” in *Proceedings of the National Academy of Sciences*, published by the independent nonprofit that provides expert science advice. Their hypothesis includes testing habituation, which is a brain’s natural tendency to gradually become accustomed to and

eventually ignore repetitive noises like a ticking clock or baby crying, and whether people with autism lack this filter. Without it, the world becomes a barrage of chaotic, unpredictable stimuli. “Imagine how overwhelming it would be if everything was seen, heard, and felt as if it were fresh and new,” Kjelgaard says. “You would be overloaded quickly and unable to focus. It would affect a person’s ability to learn and interact with others.”

Walter shows hypersensitivities to sounds and other sensations, as well as an inability to determine the path of a thrown ball or a moving automobile—another symptom they are studying. “Children with autism have many close calls with cars, and sometimes are even hit because, we think, they can’t determine how fast it is going or where it is headed,” she says, grateful this did not happen with Walter when he would periodically run away during his early childhood.

It wasn’t long after the paper was published that other autism researchers reached out, asking to become part of testing the theory. Collaborations were formed with Dagmar Sternad at Northeastern University’s Action Lab and with Massachusetts General Hospital, while a new partnership with Yale University is expected to begin soon. It’s too early to know the outcome of their research, but whether or not the theory is eventually proven, they believe it will have changed the way researchers look at autism.

A Professor With Many Hats

When Kjelgaard walks into a classroom at the Institute, she brings her experience as a scientist and mother with her. She intersperses lectures about symptomology and interventions with guest lectures by people



SLP STUDENT LEILA DENNA HAS WORKED WITH KJELGAARD FOR THE PAST TWO YEARS.

with autism, parents, and advocates. Her goal is to give her speech-language pathology students as complete an understanding of autism as possible.

“My favorite thing about working with Margaret is that she lets you explore,” says Leila Denna, who is completing her Master of Science in Speech-Language Pathology and has been one of Kjelgaard’s three SLP research assistants for the past two years. “She gives you a piece of information and helps you explore the implications and evidence so you can develop your own critical analysis.”

One of the many things Kjelgaard tries to impress upon her students is that the children they work with during their clinical placements have full lives outside of the clinical setting. She teaches students to think in terms of family dynamics and opportunities to make their clients’ and their families’ lives easier. “If a child is having tantrums every time a certain event occurs, let’s give them words or other means by which to

communicate in these contexts. Our job is to help them find another way to communicate that this event is upsetting to them.”

As a parent, Kjelgaard knows how confusing it can be for families when new, and often contradictory, interventions for autism are publicized. She has seen parents, desperate to help their child, spend thousands of dollars for dubious programs claiming to cure autism. And so she teaches her students to look at such programs with a critical eye. “I want them to know about the interventions that are evidence based, and also ones that are not.”

“She has such a wealth of information: how to conduct research, how to understand research, how to apply research,” says Denna, who had been teaching children with autism for several years before coming to the Institute. “She can put on her mom hat, she can put on her researcher hat. The ability to go back and forth—it’s an important perspective.”

At home with Walter, Kjelgaard wears only one hat. Contrary to the assumptions of those who expect her to administer extra therapies to her son after school, she sticks with the typical activities of parenting—preparing his food, making sure he bathes, reading to him before bed.

“My philosophy is that my son is who he is,” she says. “I definitely want to alleviate as much unhappiness for him as I can, I want him to reach his full potential, but I think the most important thing to do is to love him.”

Because while she may be a researcher and teacher professionally, at the end of the day, Margaret Kjelgaard is a mom first. ■

CLASS NOTES

The following abbreviations are used in Class Notes: BWH – Brigham and Women's Hospital; MGH – Massachusetts General Hospital; NWH – Newton-Wellesley Hospital; NSMC – North Shore Medical Center; SRN – Spaulding Rehabilitation Network.

COMMUNICATION SCIENCES AND DISORDERS

SARAH WARD '94, co-director of Cognitive Connections in Concord, published "Apps That Help Students 'Get It Done'" in a recent issue of the *ASHA Leader*.

MELISSA (STORMANN) METEVIER '08 reports that she is employed by the Bangor School Department in Maine, working with students using augmentative and alternative communication. She married Adam Metevier in August 2014.



DEBORAH DIXON '10, director of school services for the American Speech-Language Hearing Association, wrote "School Matters: May Is Your Month to Shine" in the *ASHA Leader*.

NURSING

ANN MILLER '96 presented "Diabetes: Pharmacology and Insulin Pumps" at the Massachusetts Nurses Association's 10th annual Clinical Nursing Conference.

JEAN TREACY '99 was part of a group of nurses from Lunder 10 at MGH who ran the 2016 Boston Marathon. They raised more than \$110,000 to support Caring for a Cure, an organization started by nurses on the floor to help patients.

KATHLEEN FITCH '01, a nurse practitioner on the Neuroendocrine Unit at MGH, received the Researcher Recognition Award from the Association of Nurses in AIDS Care at the group's recent meeting in Chicago.

CATHERINE GRIFFITH '02 and **KATHLEEN GRINKE '05**, both of whom are clinical research nurses at MGH, presented "Using Story Theory to Access Participant Voice in Clinical Research" at a recent conference of the International Association of Clinical Research Nurses.

RACHEL RICHARDS '06 presented "Breast Cancer: Latest Advances and Corresponding Nursing Care" at the Massachusetts Association of Registered Nurses meeting.

KATHERINE DAVIS '10 presented "Preservation of Evidence While Rendering Patient Care" at the Massachusetts Association of Registered Nurses' 10th annual Clinical Nursing Conference.

MARY MCNEICE '07, who works in the hematology/oncology department at Lahey Hospital, received the Mary Nolan NP Mentorship Award, which acknowledges acumen in teaching and education.

KAREN CONLEY '12 was interviewed in a *Boston Globe* story about NWH offering meditation classes for employees. The article appeared in the newspaper's "Best Places to Work" magazine.

KEVIN WHITNEY '15 co-presented "CME Peer Review: Perceptions, Practices, and Possibilities" at the American Nurses Credentialing Center's National Magnet Conference in Atlanta.

PHYSICAL THERAPY

ANDREW GUCCIONE '03 co-authored "Effect of Taping on Spinal Pain and Disability: Systematic Review and Meta-Analysis of Randomized Trials" in a recent issue of the journal *Physical Therapy*.

LAURA PLUMMER '03, SOVMYA SRIDHAR '12, MARIANNE BENINATO '02, and KRISTIN PARLMAN '03 co-authored "Physical Therapist Practice in the Emergency Department Observation Unit: Descriptive Study" in a recent issue of the journal *Physical Therapy*.

THERESA JACOBS '04, who is a member of the rehabilitation services team at NWH, received the hospital's Patient Safety Star award.

MATHEW NIPPINS '05 co-authored "Student Perceptions and Understanding of Client-Therapist Interactions Within the Inpatient Acute Care Environment: Qualitative Study" in a recent issue of the journal *Physical Therapy*.

LAURA NYE HAGLEY '08 competed in the U.S. Olympic Marathon Trials in February, finishing in a time of 2:43.11. She is director

of rehabilitation services and a physical therapist at Valley Regional Hospital in Claremont, N.H., where she specializes in treating runners using video gait analysis.

KELLY (GOLDRICK) DUGGAN '09 recently opened Physical Therapy U, a clinic in Bridgewater. She married Ian Duggan in 2010, and the couple has three children: Mae, Theo, and CJ.



KAREN WAAK '09 received The Stephanie M. Macaluso, RN, Excellence in Clinical Practice Award from MGH. The award recognizes direct-care providers whose practice exemplifies the application of the hospital's vision and values.

CHRISTOPHER BISE '10 co-authored "Evidence-Based Practice Implementation: Case Report of the Evolution of a Quality Improvement Program in a Multicenter Physical Therapy Organization" in a recent issue of the journal *Physical Therapy*.

DANIEL KELLEHER '14 authored "To Watch Us Dance Is to Hear Our Hearts Speak" in a recent issue of MGH's *Caring Headlines*.

STEPHANIE LANE '14 authored "Non-clinical Experiences Can Have Profound Effect on Practice" in a recent issue of MGH's *Caring Headlines*.

IN MEMORIAM

KARA SULLIVAN, CSD '93 died March 20, 2016. She was a preceptor/clinical supervisor for many CSD students at Charlestown High School, where she worked as an SLP for more than 20 years.

STACY KIRKPATRICK, NS '99, died March 16, 2016 of cancer. She was a nurse practitioner at Boston Health Care for the Homeless.

CHARLES WALLINGTON JR., PT '12, assistant professor of allied health at Oakwood University in Huntsville, Alabama, died September 3, 2015.

We invite you to submit your news and photos to alumni@mghihp.edu, or at www.mghihp.edu/alumni.

PHYLLIS SILVERMAN, LONG-TIME NURSING PROFESSOR, PASSES AWAY

SILVERMAN
WAS AMONG
THE IHP'S
FIRST
FACULTY
MEMBERS.



Professor Emerita Phyllis Silverman, an inspiration to hundreds of students and faculty colleagues during her 15 years at the MGH Institute, died on June 10 at the age of 88.

Dr. Silverman, who was among the first faculty at the school, taught courses on human development. She also focused on death and dying, a subject about which she wrote several books based upon her research, which included serving as co-principal investigator and project director of the MGH/Harvard Child Bereavement Study, a longitudinal study of the impact of a parent's death on school-age children. Her earlier work also included developing the Widow-to-Widow program that became a model for programs around the world, including the Widowed Persons Service sponsored by AARP.

In addition to being awarded the emerita title upon her 1996 retirement from the IHP, she was scholar in residence at the Women's Studies Research Center at Brandeis University, and was a founder of The Children's Room in Arlington. She also received the Presidential Medal from her alma mater, Brooklyn College, for her contributions to the bereavement and social welfare fields.

ABSN STUDENT DIES IN BICYCLE ACCIDENT

Amanda Phillips, a 27-year-old nursing student in the Accelerated Bachelor of Science in Nursing program, was struck and killed June 23 while riding her bicycle in Cambridge. She entered the IHP in January, a member of the Class of 2017. A 2011 graduate of Harvard University, Amanda was a bright and vibrant student full of dreams of helping others and making the world a better place.

30 YEARS LATER, FIRST NURSING CLASS REUNITES

Tom Maloney tells the story of when, during a clinical placement while he was an MGH Institute nursing student in the early 1980s, a nurse balked at him going through the maternity rotation because he was a man. His classmates rallied around him, saying that if Maloney couldn't go, they wouldn't either.

They all completed the rotation.

Maloney was one of the 31 pioneers in the Class of 1985—the first students to graduate from the IHP with a Master of Science in Nursing degree. “There was a unique bond being in that first class, as we had to build the program with the nursing faculty and administration,” recalls Maloney, who went on to become a clinical nurse specialist.

He was among several classmates who gathered last fall at the Sudbury home of Gail Chapman Close to celebrate their 30th anniversary. Over an evening of laughs and memories looking at old photos and other artifacts, they reminisced about the early days of the program, one of the country's first direct-entry programs for college graduates without a nursing background. “There was a lot of confusion back then about what this program was, that you could go to graduate school for three years to become a nurse,” Chapman Close says. “It was a new way to enter the nursing profession.”

“The fact that it was connected to Massachusetts General Hospital helped tremendously,” adds Marie Sheehy, one of the reunion's organizers, who spent her career at the VA Hospital in Bedford. She says the MGH connection—the IHP was founded in 1977 after hospital leaders voted to close its 100-year-old diploma nursing school—assuaged employers who might have been



HOLDING THEIR 1985 CLASS PHOTO ARE (FRONT ROW): MARY VAL PALUMBO, MARIE SHEEHY, TOM MALONEY. (BACK ROW): JANE KELCH WILDE, DEBORAH MACDONALD MEEHAN, HANNAH FELTON LYONS, AND GAIL CHAPMAN CLOSE.

reluctant to hire nursing graduates from a new and innovative program.

Maloney recalls that Ruth Sleeper, a nursing icon for whom a hall at the hospital is named (and where the IHP initially held its classes), visited during their first year. “It was remarkable what she contributed to the field of nursing and how she helped us to feel accepted as students in a new program,” he says.

Other alumni who attended the reunion included Deborah MacDonald Meehan, Mary Val Palumbo, Hannah Felton Lyons, and Jane Kelch Wilde.

“It was a blast getting together,” notes Chapman Close. “We're all a little heavier and our hair a little whiter, but basically, we're all the same people—and we've had great careers thanks to the education we received at the Institute.”

TAKING THE LONG WAY HOME

I recently had the chance to reflect on a career path that has been anything but a straight road. Instead of following my initial plans, I followed my heart and passion and discovered a fulfilling new route along the way.

I started out as a physical therapist at Boston Medical Hospital, where I was asked to develop a home physical therapy program in conjunction with nurses, physicians, and social workers. It was not quite the career in geriatrics that I had in mind, yet it offered me an unanticipated challenge to learn and grow in unfamiliar, unmapped territory.

I discovered I truly loved seeing people on their own turf. Although we try in the clinic setting to replicate the environmental obstacles that our patients may encounter at home, we don't really imagine the narrow doors, the loose carpeting at the entrance, the wobbly railing on the stairs. We can't see the single overhead light in the kitchen, a small sconce in the bathroom, and a Tiffany lamp in the bedroom at waist level—weak illumination that casts scary shadows with the setting of the afternoon sun. We don't replicate the cluttered hallway filled with the many boxes still unpacked from the move into a two-room senior apartment near a daughter, after leaving a beloved 11-room farmhouse that was home for 68 years.

I discovered my whole approach to assessment, examination, evaluation, and intervention changed. My clinical approach in establishing short- and long-term goals for therapy became more individualized—and more realistic.

Another career path was revealed when I realized how important a patient's informal caregiving network can be. I was inspired by the spouses, family members, and friends who provided 24/7 care for their loved one. My grandma used to say, "We show our greatest virtues when we put ourselves



My grandma used to say, "We show our greatest virtues when we put ourselves aside and care for those in need." How invaluable it is to have a neighbor who can rake the lawn, pick up groceries, or take us to church or a movie.

aside and care for those in need." How invaluable it is to have a neighbor who can rake the lawn, pick up groceries, or take us to church or a movie. Social support is an element often skipped over during a patient assessment, yet it can be crucial in keeping someone at home and out of a skilled nursing facility—another example of my therapeutic lens being refocused and fine tuned.

Over the years, I have seen an increasing number of homeless people on the streets of Boston, making me realize the importance of having a home. So I took on a new challenge and transitioned to providing care for homeless elders, taking me down another new road and into an area of care previously unknown to me. But my homecare experiences informed

the way I care for my patients in every setting. I now spend more time understanding the environment into which they hope to be discharged, and work with family caregivers as part of the rehab team from day one. Every day I grow and learn a little more.

Oh, by the way, I haven't seen my career path map in decades. I lost it somewhere along the way by taking the long way home.

Jennifer M. Bottomley, PhD, MS '86, PT, received her Master of Science in Physical Therapy degree from the MGH Institute. She is an associate professor of physical therapy at Simmons College, and is on the board of directors of rehabilitation services for Hearth (formerly known as the Committee to End Elder Homelessness) in Boston.

A Marathon of Support

In 2016, the four runners in Team IHP completed the 26.2-mile course and generated almost \$23,000. Our sincere congratulations and appreciation go to this year's members: alumna Lauren Kline, CSD '14, and students Charlotte Baillieul, NS '18, Christina (Chrissy) Cornish, PA '17, and Shira Krimsky, OT '17.

It's not a run in the park to be a member of Team IHP. But since 2011, alumni, students, faculty, and staff members have laced up their sneakers and completed the Boston Marathon, raising more than \$115,000 in support of the MGH Institute.



Kline, Baillieul, Cornish, and Krimsky stood out among the runners with their bright IHP shirts.

Kline graduated in 2014 with a Master of Science in Speech-Language Pathology. Her goal was to raise funds for the Christopher Norman Fund, named for an Institute SLP graduate who passed away tragically in 2010. "The purpose of this fund is to keep Christopher's memory alive by helping students pursue research that benefits people who have communication disorders," says Kline, who works at Manchester-Essex Regional Middle School.

Baillieul is a first-year student in the Master of Science in Nursing program. A lifelong runner and native Bostonian, she raised scholarship support for nursing students. "Scholarships are desperately needed to help driven and capable students enter the demanding health care field," she says, "and the money I raised will help other motivated students receive the best education available."

Cornish, a member of the first cohort in the Master of Physician Assistant Studies program, raised money for the school's Community Service Fund, which helps scores of students each year complete outside projects with nonprofit groups throughout Greater Boston. "I believe students at the Institute have a responsibility to contribute to the greater community, and offering their health care knowledge while receiving hands-on learning is extremely important," she says.

Krimsky, a Doctor of Occupational Therapy student, started running marathons shortly after the Boston Marathon bombings in 2013. "I was thrilled to run for an institution that is preparing students for a rewarding career in health care," says Krimsky, who raised funds for the OT department.



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Honorary Chairs

Ellen and Peter Zane
Jack Connors, Jr.
Samuel Thier, MD

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