



Division of Survivorship and Supportive Care

Changing Cancer Care As We Know It



CONTENTS

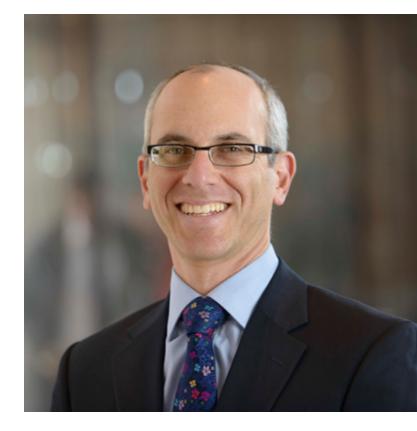
- 01 Letter from the Division Head
- **02** Division of Survivorship and Supportive Care Physicians
- **04** Promotions and Appointments
- 05 Joe Biden Comes to MSK
- **06** Interview: Adam Klotz
- **08** Interview: Rebecca Guest
- 10 Interview: Judith Nelson
- **12** MSK Survivorship Leader Spearheads Seminal National Symposium
- 14 Treating Older Adults with Cancer Requires a Multidisciplinary Approach and a Deft Touch
- 16 Research Grants
- 18 Interview: Kimberly Chow
- 20 Easing Transitions and Optimizing Value
- 22 Excellence in Nursing
- 24 Annual Survivorship Celebration
- 25 Senior Health and Fitness Day
- 26 Hospitalists Increasingly Integral to MSK's Stellar Inpatient Care
- 28 Interview: Jun Mao
- **30** Philanthropy
- **32** Awards
- 34 MSK Survivorship Champion Mary McCabe Recounts Victories, Challenges as Retirement Nears
- 36 MSK Survivorship Center Educates Centers Around the World
- **37** Presentations
- **38** Posters
- **39** Clinical Trials
- **41** Publications
- 46 How You Can Help

Letter from the Division Head

he Division of Survivorship and Supportive Care (DSSC) lives within the Department of Medicine and is composed of the following clinical services: General Internal Medicine, Hospital Medicine, Urgent Care, Palliative Medicine, Geriatrics, Integrative Medicine, and Employee Health and Wellness. The mission of the DSSC is to develop and deliver the highest standards of care for supportive oncology and cancer survivorship, ultimately helping Memorial Sloan Kettering (MSK) realize its mission to provide patients with the most cutting-edge, compassionate, and efficient cancer care anywhere. Our division serves as the administrative and academic home for MSK practitioners and researchers whose primary efforts are focused on supporting patients and staff throughout the cancer journey. DSSC clinicians and researchers work with others across the breadth of MSK to develop unique programs that care for and support patients from diagnosis, through treatment challenges and side-effects, to the end of life.

In a very real sense, our clinical and research programs strive to improve the physical, emotional, and spiritual well-being of the whole cancer patient.

Some examples of our world-class programs include the Long Term Follow-up Clinic for adult survivors of childhood cancer, our unique Palliative Care practices which are fully embedded and co-located with MSK oncology, and our internationally renowned, multi-disciplinary Integrative Medicine service. Finally, the DSSC



is fully engaged in the educational mission of MSK and serves as the faculty home for the MSK Transitional Year Residency Program, the MSK Palliative Medicine fellowship program, and Weill Cornell's medical student program.

We truly welcome your partnership to help us change cancer care as we know it!

With warm wishes.

Robert Sidlow MD, MBA, FACPDivision Head and Associate Chairman

General Internal Medicine Service



Robert Sidlow



Deborah Korenstein



Shrujal Baxi Assistant Attending Researcher



Annarita Marcelli Associate Attending



Steven Martin



Kevin Oeffinger Attending



Nirupa Raghunathan



Marina Rozenberg Assistant Attending



Emily Tonorezos Associate Attending



Associate Attending

NOT PICTURED Shellie Gumbs Associate Attending Amsale Ketema Associate Attending

Employee Health and Wellness Service



Arthur Brown Chief Attending



Rebecca Schwager Guest Assistant Attending



Anna Lucca Bianchi Instructor



Alan Engelberg Associate Attending

Hospital Medicine Service



Barbara Egan



Kathleen Atlas Associate Attending



Helen Chung Assistant Attending



Lisa Diamond Assistant Attending



Brenton Fargnoli



Ancy George



Tabitha Goring Assistant Attending



Jennifer Heinen



Douglas Koo Assistant Attending



Chhavi Kumar Assistant Attending



Elizabeth Maina Instructor



Caroline Novak Instructor



Cori Salvit Associate Attending



Peter Stetson Associate Attending



Elina Tsyvkin Assistant Attending

Palliative Medicine Service



Judith Nelson



Yvona Griffo Assistant Attending



Jason Meadows Assistant Attending



Natalie Moryl Assistant Attending



Geriatrics Service

Beatriz Korc-Grodizicki Chief Attending



Koshy Alexander Assistant Attending



Reggie Saldivar Assistant Attending



Stacey Stabler Associate Attending



Roma Tickoo Assistant Attending



Alison Wiesenthal Assistant Attending



Armin Shahrokni Assistant Attending



Sung Sun Assistant Attending

Integrative Medicine Service



Jun Mao Chief Attending



Ting Bao Assistant Attending



Gary Deng Attending



Shelly Latte-Naor Assistant Attending

Secondary Palliative Medicine Appointment

William Brietbart Alan Carver Eli Diamond Robert Dingeman Barbara Egan Andrew Epstein Douglas Koo Chhavir Kumar Vivek Malhotra Garvil Pasternak Damani Taylor Louis Voigt

Urgent Care Service



Jeffery Groeger Chief Attending



Alberta Alickaj



Kathleen Cathcart Associate Attending



Judy Dong Associate Attending



Venera Grasso Associate Attending



Erik Johnson Associate Attending



Adam Klotz Associate Attending



Michelle Logozzo
Associate Attending



Alison Mainardi Assistant Attending



Barbara O'Sullivan Assistant Attending



Ranisha Patel Assistant Attending



Dragos Rancea Associate Attending



Yael Raymon Assistant Attending



Nelson Sanchez Assistant Attending



Robin Stutman Assistant Attending



Nicole Tyer Assistant Attending



George Wang Assistant Attending

Promotions

2016



Deborah Korenstein Chief Attending



Judith Nelson Chief Attending



Cori Salvit Associate Attending

NOT PICTURED **Shellie Gumbs** Associate Attending

2015



Kathleen Atlas Associate Attending



Annarita Marcelli Associate Attending



Michelle Logozzo Associate Attending



Yael Raymon Assistant Attending



Stacey Stabler Associate Attending

Appointments

2016



Shelly Latte-Naor Assistant Attending

2015



Anna Lucca Bianchi Instructor



Jun Mao **Chief Attending**



Jason Meadows Assistant Attending



Reggie Saldivar **Assistant Attending**

Joe Biden Comes to MSK

repping the launchpad for his cancer research moon shot initiative, Vice President **Joe Biden** held a roundtable discussion at Memorial Sloan Kettering in 2016. The visit was the latest in Mr. Biden's efforts to "change cancer as we know it" through an ambitious national effort dubbed the National Cancer Moonshot Initiative. He's been traveling the country, pressing for new treatments to attack and ultimately cure cancer.

A round-table discussion involving many of Memorial Sloan Kettering's doctors and nurses, including the division head of the Division of Survivorship and Supportive Care, Dr. Robert Sidlow, worked through pressing issues of concern. During the hour-long conversation, the vice president honed in on several key topics that have emerged since President Barack Obama announced the initiative earlier this year: increasing access to and enrollment in clinical trials, collecting and sharing cancer data, and breaking down barriers to scientific collaboration.

Near the end of the roundtable discussion, Mr. Biden returned to a topic obviously close to his heart: data sharing. He reported being "stunned" to find out how many barriers currently hinder the free sharing of information among researchers and centers. He pointed to pay walls at scientific journals that put the results of publically funded research out of reach to those unable or unwilling to pay, and to duplicate research efforts at different centers that seemingly reinvent the wheel. He contrasted this situation with that of astronomers, who routinely collaborate on common goals and share their data freely and immediately — a fitting comparison, given the moonshot analogy.

"If I have any regret about not running, I would have liked to be the president to preside over ending cancer as we know it."

- JOE BIDEN





Adam Klotz

DIRECTOR, CLINICAL DECISION UNIT, URGENT CARE CENTER



he shift work inherent in Urgent Care enabled **Adam Klotz, MD**, to balance dual early careers as an internist at Memorial Sloan Kettering and a ballet dancer with the Metropolitan Opera. But Dr. Klotz, who began working at MSK's Urgent Care Center (UCC) in 1999, is now happily and entirely ensconced in his physician role as the scope and volume of patient care at the UCC continues to markedly increase.

"Very few cancer centers do what we do. I feel like I have a front-row seat at one of the most incredible places and times in medical history," he explains. "Being able to participate in the management of cancer emergencies is essentially a sub-sub-specialty that's really ours."

Treating up to 2,000 patients each month, the UCC functions as an emergency room for MSK patients, evaluating and managing problems related to cancer, medical and surgical complications, and the side effects of cancer treatments. The most common conditions Dr. Klotz and his colleagues see include infections, fever, pain, nausea, and weakness an ever-evolving mix that sometimes obscures a clear path forward.

In early 2015, MSK created the Clinical Decision Unit, a nine-bed area next to the UCC intended for patients who require additional monitoring or treatment that may prevent a hospital admission. Dr. Klotz serves as director of this unit and finds that gaining his footing there on any given day requires just as much agility as his former dance role.

"What draws people to emergency medicine is also very true about the Urgent Care Center at Memorial," he says.

"We are interacting with people at an extremely vulnerable time, and there's a very real possibility to reverse or mitigate a bad experience in their life. These encounters often occur at important milestones in a person's illness, and it's a real privilege to be able to cross paths with them at that time."

ADAM KLOTZ, MD

Here. Dr. Klotz discusses how MSK's mission has fueled the UCC's growth; the research happening in the Urgent Care Service; and how its work affects patient outcomes.

How prominently does Urgent Care fit into most cancer patients' array of needs?

It's very disease- and patient-specific, but most patients visit Urgent Care at some point during their course of care. With more treatments and procedures being done on an outpatient basis — such as surgeries at MSK's new Josie Robertson Surgery Center — the downstream effect is that Urgent Care is the place patients go when a problem arises.

Why are Urgent Care Center visits increasing and how has MSK adapted to this growth?

Memorial has grown considerably during the last several years. We now have many regional satellite centers, alliances with other institutions, and increased participation in clinical trials. The net result is, if you look at active patients at Memorial, those numbers are increasing at a very impressive rate. The more patients seen at MSK, the more likely we are to find new and better ways to treat cancer. The flip side is that we have been busier than ever during the last three or four years.

What types of clinicians work in the UCC and how collaborative is your work with other clinicians across the hospital?

All of the Urgent Care attending physicians are trained in internal medicine, but some have done specialty training as well in such areas as palliative care, critical care, oncology, infectious disease, and endocrinology. That said, we often receive important input from the patient's primary oncologist and surgeon. It's a very collaborative experience, and it's always beneficial for the patients.

What research are you and colleagues undertaking and how does it impact patient experience in the UCC?

Recently, we analyzed admission patterns, clinical outcomes, and patient experience before and

after we opened the Clinical Decision Unit to find out if we were actually admitting fewer patients or if patients were bouncing back here a few days later. One thing we found was that having the unit clearly decreased inpatient bed use; the other was we can now say that our patients have very different problems or sets of problems than in noncancer settings. About one-third of our patients get admitted versus 10 percent of patients in noncancer settings.

We're also doing some research on how to treat patients who have a fever while their blood counts are very low. Historically, most of these patients are admitted to the hospital. We believe a short course of treatment in the Clinical Decision Unit may allow them to be safely discharged.

How does your clinical work impact patient outcomes?

About 5 percent to 10 percent of the time, patients arrive in Urgent Care who are very ill, and we are able to get them out of serious trouble. That's the allure of emergency medicine for a lot of people, but it doesn't happen very often. Much more commonly, we are stabilizing a bad situation for someone whose at-home care plan is not working. For example, a patient may have uncontrolled pain or severe nausea. We can usually improve that situation in some way.

Sometimes, we have an opportunity to help a patient and their family address the difficult decisions that happen at the end of life. When a patient presents to the UCC with a critical illness, we must immediately clarify the goals of care and try to understand how the patient would like us to proceed. Ideally, these issues have already been discussed in the oncologist's office, but sometimes it doesn't unfold that way. Guiding a patient and their family through this difficult conversation and helping them make a choice they feel comfortable with is a unique privilege.

Rebecca Guest

ASSOCIATE MEDICAL DIRECTOR, EMPLOYEE WELLNESS PROGRAM

hile taining in public health at Johns Hopkins and completing occupational medicine research at Memorial Sloan Kettering, it became clear to Rebecca Guest, MD, MPH, that many injuries and diseases could be avoided. This realization — and a growing interest in preventive health — sparked a new professional path for Dr. Guest, with Memorial Sloan Kettering eventually becoming the lucky beneficiary.

Dr. Guest joined the MSK faculty in 2008, just as MSK's Employee Wellness Program took shape under Chief and Medical Director Arthur Brown, MD. With about 15,000 employees and volunteers at MSK, the need for a formalized program to keep its own workforce healthy and strong was immediately evident. The MSK Employee Wellness Program helps employees and their family members reach for optimal health and increase productivity by targeting such issues as nutrition and weight management, fitness and exercise, tobacco cessation, and stress management.

Dr. Guest works with colleagues to prevent, diagnose, treat, and monitor illnesses and injuries in MSK employees. Frequently seen problems include work-related injuries, such as from trips and falls; influenza; blood-borne pathogen exposures, such as needle sticks; rashes; environmental exposures, such as chemical splashes; and ergonomic concerns, such as carpal tunnel syndrome.

"We care for the caretakers. It's about making MSK the best it can be by keeping the healthcare workers healthy, which helps them be in the best condition possible to keep our patients and visitors healthy."

- REBECCA GUEST, MD, MPH

"It can be as obvious as keeping influenza out of the hospital by making sure that our staff are immunized or making sure that they stay out of work if they're sick," she adds. "But it can also be as complicated and multifaceted as enabling our employees to feel good and be healthy so they can bring their best attitude and physical ability to work with patients."

In this Q&A, Dr. Guest details how the mission of Employee Wellness — part of MSK's Employee Health & Wellness Services (EH&WS) — impacts the experience of patients with cancer; compelling research efforts in the service; and why self-care is so important for MSK employees.

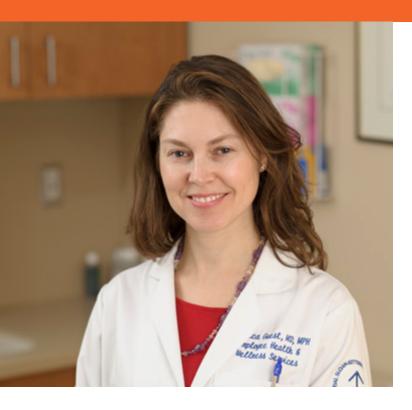
Why is it so pivotal to have a service specifically dedicated to keeping MSK's operations humming along?

MSK employees' well-being has a direct impact on the organization's health, as well as the health of patients and the experience of families, because we could not function at a maximum without them. Fifteen thousand employees translates into a lot of people with a lot of everyday illnesses and injuries. For those that are work-related meaning they occurred at work or could impact the staff's ability to do their jobs — we're involved.

Since I've been here, the visibility of the EH&WS has really increased, and everybody seems to understand the importance of keeping the staff well. Sometimes our staff members do sustain injuries or get sick, and when that happens, our goal is to support them in getting the best care available and facilitate a safe return to work.

Why are employee wellness initiatives particularly necessary at a cancer center like MSK?

Taking care of patients is stressful, and our staff experiences unique stressors as well as rewards. We make it easy and free for employees to voluntarily maintain and improve their health by participating in weight loss or nutrition programs, building resilience, smoking cessation,



and fitness challenges, among other things. We don't simply want to do what's mandated because we hope our employees will thrive and stay with us for a long time. Other medical centers are taking note and learning from us. Since we represent the best cancer care available anywhere, we should aspire to that standard with what we provide for our employees.

What research efforts by you and your EH&WS colleagues do you find especially compelling?

Related to infectious disease in a healthcare setting, several in our service are working on evaluating shorter treatment regimens for latent tuberculosis infection. We ask anyone who works here to be treated. So we're evaluating shorter treatments that are less cumbersome.

Another interesting area of research has looked at issues experienced by employees who have returned to work after taking a leave of absence for cancer treatment. We tried to learn from them so we can also contribute to knowledge about how to support others returning to work after cancer. A lot of my research is focused on how to best care for the caretaker. I'm really interested in how to support our healthcare workers who are so determined to provide the highest standard of care for patients or produce important research but who also need to be sustained themselves.

One of your research interests centers on the tension existing between a workplace culture of productivity and the needs of employee self-care and organizational safety. Why did you become interested in this?

When I started working here, I was asked to look at the issue of burnout in our population so we might try to prevent it. It's now commonly covered in the press, but it wasn't always understood how prevalent burnout is among healthcare providers because they have such emotionally and physically demanding jobs. We needed to understand what some of the potential occupational hazards are of working at major medical center. For example, akin to hurting one's back by moving a patient is compassion fatigue. While the topic can be uncomfortable to broach, it's part of the job.

I think there's a tension between a culture of productivity and the need for self-care because we have multiple competing responsibilities. First, we are totally dedicated to our patients and our research. At the same time, we're human beings and have family responsibilities and sometimes have personal medical problems or other challenges. I think we need to attend to the total person in order to be professionally successful.

What are the biggest challenges remaining in optimizing employee health and wellness initiatives at MSK?

Time, mainly. We've surveyed groups of our employees about barriers to participating, and often the major barrier is there's no time. With enormous work and personal demands, self-care, like weight control or getting fit, is put on hold. Another barrier is communication — just making sure people are aware of what's available to them and how they can access it easily. Lastly, I think there has been a stigma against prioritizing self-care because, as people who've devoted our lives to caring for others, we often put ourselves last. But there's increasing recognition that by taking care of yourself, you can do a better job taking care of others.

Judith Nelson

CHIEF. PALLIATIVE MEDICINE SERVICE

ith a law degree from Harvard complementing her extensive medical training and board certification in four subspecialties — internal medicine, palliative medicine, pulmonary disease, and critical care medicine — Judith Nelson, MD, JD's career might have gone in countless directions.

But Dr. Nelson feels keenly that her expertise converges best in palliative care at Memorial Sloan Kettering Cancer Center, which she describes as the "standard bearer" for comprehensive cancer care that's also leading the integration of palliative medicine in novel ways.

Coming to MSK's Division of Survivorship and Supportive Care from Mount Sinai in early 2015, Dr. Nelson was named Chief of the Palliative Medicine Service in April 2016, holding a joint appointment in Critical Care.

"I've come to view palliative medicine as the work of supporting patients and their families to live maximally in the face of serious or critical illness, and that focus really brings together all of the training and experience I have," she explains. "It's the most deeply gratifying work I can imagine."

In her short time here, Dr. Nelson has already proven integral to advancing the institution's expanding commitment to palliative and supportive care. She helped spearhead MSK's inaugural day-long Palliative Medicine Retreat in fall 2015, bringing together more than 100 of our physicians, surgeons, nurses, social workers, chaplaincy, and senior institutional leadership to collaborate on defining a vision of MSK's future at the forefront of palliative care and create a roadmap for that vision.

"I think palliative care is often conflated with end-of-life care and hospice care, and that's very unfortunate because it leads to delaying palliative care, which is really based on need and not prognosis, until it's decided there's no other cancer-directed treatments," she says. "The whole field is still dealing with this confusion. Where could it be more appropriate than here at Memorial to establish the best model of cancer

care as fully integrating palliative care into routine, comprehensive cancer care?"

In this interview. Dr. Nelson details her vision for the Service as well as a pivotal new initiative that should help fulfill that mission.

How close is MSK to fulfilling the goal of tightly weaving palliative medicine into cancer care?

We have felt and very much welcome the recognition by this institution that palliative care and cancer care go hand-in-hand. We're now piloting a new initiative called the 1-2-3 Project for the specific purpose of introducing components of palliative care right from the beginning, when patients first establish care at our institution. The project supports the primary oncology team, who provide most of this care, and also provides palliative care specialists to coach the primary team and provide consultative services when needed.

I feel very enthusiastic about this project, very committed to it, and very confident it will achieve its goal and allow this institution to continue setting the standards for the finest comprehensive cancer care that's available, which includes appropriate palliative care and supportive care. If it continues to show the success it seems to be at this early phase, we hope to be able to expand it more widely.

What's your vision for the future of the Palliative **Medicine Service?**

I see our Service as the foundation for the institutional strategy. We bring to this an incredibly strong and collaborative interprofessional team of not only amazingly expert physicians, but the finest nurse practitioners, a palliative care specialist social worker, a chaplain, and a palliative care specialist clinical pharmacist.

We focus on patient experience, and also on the efficiency of the use of the institution, so we can really facilitate growth and continued advances in cancer care while supporting patients and their families throughout cancer. Our hope



is that with good palliative and supportive care, patients will achieve both longer and better survival. We speak of living maximally, and that's defined by the patients we care for and their families. It's not an either-or choice between cancer care and palliative care.

How does the Division of Survivorship and Supportive Care incorporate these ideals into its identity?

The focus on supporting patients to live better while they receive cancer treatment and face cancer is not only a job for the Palliative Medicine Service but also includes many other services in this Division and throughout the institution. Having the Division gives us a strong structure for that kind of collaboration, which is enormously valuable — essential, really — for good clinical care, for innovative educational efforts, and also for the kind of research we want to be conducting.

Describe the research in the Palliative Medicine Service that you find especially compelling?

There are several components of what is an expanding program of research. One relates to the new 1-2-3 Project focusing on the integration of truly early palliative care from the beginning of cancer care. This innovative model presents a number of extremely interesting and novel research issues.

I'm continuing my own research at the interface of critical care and palliative care. I just submitted a proposal to the National Institutes of Health that relates to supporting rapid response teams who are critical care nurse practitioners, respiratory therapists and other clinicians called into situations where patients are acutely deteriorating. Rapid response teams need to be able to address urgent palliative needs at a "primary" (non-specialist) level. We're going to test an intervention to help them do that.

We're also part of a tri-institutional pain registry that involves Cornell and the Hospital for Special Surgery, and this growing database of information allows us to better understand how to evaluate and treat acute pain in effective ways that are also safe.

What goals were developed at the Palliative Care Retreat that you feel have furthered palliative care as an offering at MSK?

This idea of integrating palliative medicine early on with cancer care as a routine part of care in this institution, and making sure palliative care is not simply deferred until there's no cancer care, was a central theme of that retreat. The 1-2-3 Project is an important expression of that and was built on that theme. The idea that palliative medicine is a collaborative effort by oncology teams themselves at the primary level was another key theme, as was the collaboration of all supportive services to enhance cancer care. What's happening on the ground now is deeply rooted in the themes and ideas that came out in planning and implementing the retreat.

MSK Survivorship Leader Spearheads **Seminal National Symposium**

ith mounting numbers of cancer survivors worldwide, the director of Memorial Sloan Kettering's Cancer Survivorship Center has helmed a pivotal initiative, bringing together health professionals in the oncologic and primary care fields to further spotlight these patients and enhance their outcomes.

Kevin C. Oeffinger, MD, also the director of MSK's Adult Long-Term Follow-Up Program, spearheaded the creation of the Cancer Survivorship Symposium by the American Society of Clinical Oncology (ASCO), the primary professional society in the cancer field. Also sponsored by the American Academy of Family Physicians and the American College of Physicians, the inaugural symposium was held in 2016.

Long involved in all three sponsoring organizations and having served as a past chair of ASCO's Cancer Survivorship Committee, Dr. Oeffinger decided a symposium focusing specifically on this patient group and its needs would be an ideal spin-off of ASCO's annual meeting. Fortunately, ASCO officials agreed.

"In essence, it's a reflection of two changes within the United States and even internationally. One is that the number of cancer survivors continues to grow, with an estimated 14.5 million in the U.S. now," Dr. Oeffinger explains. "Meanwhile, people in the survivorship field have struggled to provide the highest-quality approach and how to partner with oncologists and primary care to facilitate that."



Symposium Successful Out of the Gate

Already, the Cancer Survivorship Symposium has proven to be a magnet for health professionals from a variety of disciplines along with nursing and allied health. More than 830 people attended the inaugural symposium — including a core group of 15 from MSK — with more than 1,000 expected in San Diego this coming winter for the second.

The symposium showcases abstracts presented on a variety of research interests related to survivorship, including late- and longterm treatment effects; psychosocial issues; recurrence and secondary malignancies; and care coordination and financial implications.

"The first symposium drew about double

the number of attendees we were targeting and double the number of abstracts we were hoping for," says Dr. Oeffinger, who served as its Steering Committee chair last year and is now chairing its Planning Committee.

Dr. Oeffinger's prominence in creating the new ASCO symposium mirrors the leading role MSK has assumed globally in furthering cancer survivorship issues. A scant two years after its formal establishment, about 75 MSK clinicians and researchers work within the Cancer Survivorship Center — up from the tiny handful who worked in survivorship when Dr. Oeffinger came to MSK in 2005.

Largest Patient Volume in Survivorship

"We are among the four or five most notable centers in the country for our efforts in cancer survivorship" says Dr. Oeffinger, "and our growth certainly highlights the strides MSK has made in this area."

"We didn't start from scratch; it's a program that has grown up a lot over the last 10 years. From a clinical perspective, we saw more than 14,000 patient visits this past year, which is likely the largest volume of cancer survivors seen at an institution worldwide."

- KEVIN C. OEFFINGER, MD

The Cancer Survivorship Center is also actively fulfilling additional priorities, such as promoting research, education, and training in the field, Dr. Oeffinger notes. MSK receives about \$8 million in grants from the National Institutes of Health and related institutions to support survivorship research annually. Meanwhile, the hospital also endows a survivorship fellow each year to do its part in training the future generation of clinicians and researchers in this area.

A National Cancer Institute-supported independent investigator who has led studies to better understand long-term health problems related to cancer and its treatment, Dr. Oeffinger points out that one of every five cancer diagnoses is actually a second or subsequent cancer for a patient. This revelation, among others, is fueling MSK research efforts, he says.

"Late-treatment effects can include second cancers, heart-related problems, and problems with fertility, sexual function, or cognitive function, and our patients tell us — or we learn from them — what things affect both their longevity as well as the quality of their lives," he says. "What gets me really excited is seeing how the care we're able to provide improves based on what we learn from patients and the research we conduct."

Treating Older Adults with Cancer Requires a Multidisciplinary Approach and a Deft Touch

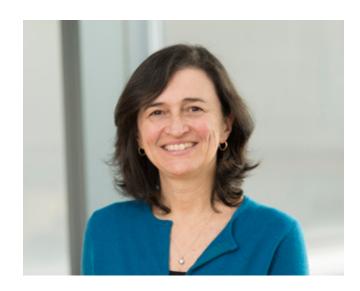
even years after being recruited by Memorial Sloan Kettering to create the Geriatrics Service that's now part of the Division of Survivorship and Supportive Care, **Beatriz Korc, MD, PhD**, is seeing its vision — to provide a comprehensive, patient-centered focal point for the care of older patients with cancer bear fruit.

Caring for older patients, who comprise about 40 percent of all MSK patients and about 55 percent of oncology patients nationally, is made more challenging by many aging-related issues. Chronologic age differs from functional age, and this difference and the uniqueness of each patient need to be integrated in the decision-making process of cancer treatment. Some older adults remain vital and strong into their 70s, 80s, and beyond, but that's not always the case. Adding disparate conditions — such as diabetes, heart disease, cognitive impairment, or functional dependency into the mix, not to mention a bevy of medications for those ailments — makes cancer harder to treat and outcomes more unpredictable.

The Geriatrics Service operates mostly on a consultant basis. It is an interprofessional team that includes geriatricians, a geriatric oncologist, nurses, a geriatric pharmacist, and support staff. Additionally, the service collaborates with members of MSK's long-established 65+ program (a multidisciplinary initiative offering rehabilitation, counseling, and other support to older patients) in the ever-evolving hunt for best practices in caring for this population.

"We see a percentage of older patients treated at MSK, not all of them," explains Dr. Korc, the Geriatrics Service Chief and Director of the 65+ program. "We receive about 1,000 referrals a year for preoperative evaluations in patients 75 and older, and if they're admitted, we follow them during their hospital stay. All of them are evaluated by an abbreviated electronic geriatric assessment in addition to their usual care.

"We also provide consultations for older adults prior to or during other cancer treatments



such as chemotherapy or radiation therapy," adds Dr. Korc, "emphasizing not only on patient comorbidities but also on life expectancy and patient preferences."

Grant, Research Boost Service's Profile

With a national shortage of geriatricians in the United States — despite a projection that those 65 and older will comprise 20 percent of the population by 2030 - MSK's Geriatrics Service has been recognized for its excellence. A recent grant from the U.S. Health Resources and Services Administration (HRSA) will funnel \$750,000 per year for the next three years into our service's efforts to educate others about geriatrics, including oncologists at MSK, primary care providers in the wider community, and the public.

The HRSA is "very keen regarding efforts to educate disadvantaged or underserved populations," Dr. Korc notes. "So we're collaborating with the Immigrant Health and Cancer Disparities Service at MSKCC, the Queens Cancer Center and the South Asian Council for Social Services to bring education on geriatric subjects to people who are immigrants or underserved, who speak other languages, and who are from other cultures."

An array of research projects also raises the service's profile and impact. A major one capitalizes on the preoperative workups performed on older MSK surgical patients. Clinicians have developed an online geriatric assessment and have been investigating the influence of so-called geriatric syndromes — such problems as cognitive impairment, falls, malnutrition, and functional dependency, which occur more frequently with age — on these patients' surgical outcomes.

"We have found that patients who have a history of cognitive impairment, dependency in their activities of daily living, and falls have a higher frequency of delirium after cancer surgery," says Dr. Korc, who previously worked at the Mount Sinai School of Medicine.

Additionally, a geriatrics research program is being developed by MSK clinicians interested in geriatric oncology. These include physicians from gynecological oncology, gastrointestinal oncology, and lymphoma, as well as representatives from some of the regional sites, she says.



"Doing a Very Good Deed"

Dr. Korc would relish the ability to evaluate every older adult patient at MSK with "some form of geriatric assessment that's easy and practical enough to be incorporated into the daily routine of a busy oncology practice."

But this ideal, she acknowledges, is a major task topping a lengthy list of remaining challenges in optimizing care for older people with cancer. She hopes to scale those obstacles over coming years as awareness grows of the need for dedicated geriatricians in oncology.

"Not many geriatricians are interested in oncology, and not that many oncologists are interested in geriatrics," Dr. Korc explains. "A big challenge worldwide is the inclusion of more older patients in clinical trials, which would give oncologists better data to base treatment decisions on.

"I'd also like to see cancer treatment decisions be more patient-centered, particularly for patients who are frail or have shorter life expectancy due to other medical problems," she adds.

"Despite challenges, I think we're doing a very good deed. After you've seen how older cancer patients can really fall apart just because other, not-soobvious problems aren't taken into account, you can understand that the small interventions we do can do a lot of good."

- BEATRIZ KORC, MD, PHD

Research Grants



Karen Cadoo, MD

"Single-Arm Study of Supervised Exercise Training in Combination with Cisplatin and Paclitaxel Intravenous and Intraperitoneal Chemotherapy in Ovarian Cancer — A Pilot Study"

Chemotherapy delivery is critical in the management of patients with ovarian cancer, however this delivery can be hampered by treatment toxicity. It has been shown in breast and other cancers that the addition of exercise to chemotherapy is safe and tolerable and can improve patient outcomes, including treatment tolerance. The primary objective of this grant is to determine the safety and tolerability of a supervised exercise training intervention in women with ovarian cancer receiving chemotherapy. The secondary objectives are to determine the preliminary effects of exercise on chemotherapy tolerability, exercise capacity, and patient-reported outcomes.



Nirupa Raghunathan, MD

"A Risk Communication Tool to Increase Statin Use among High-Risk Cancer Survivors: Development and Pilot Testing"

The Statin Risk Communication Tool project has progressed through development and is currently in the IRB protocol approval process. The Division of Survivorship and Supportive Care's small grant funding has also allowed for the successful application and award of a KL2 grant, which is funded through the Clinical and Translational Science Center (CTSC). The CTSC is a multi-institutional consortium based through Weill Cornell Medicine: this award establishes a multi-institutional team for further examination of statin use and decision-making in cancer survivors.



Rebecca Guest, MD, MPH

"Caring for the Caretakers: How Effective and Feasible Is a Workplace Wellness Intervention to Help Healthcare Staff Lose Weight and Improve Well-Being?"

We are planning a small-scale pilot project evaluating a voluntary workplace wellness intervention intended to help employees lose weight and improve well-being. Our wellness intervention will be assessed for acceptance of the program by MSK employees (including expressed interest, participation, and satisfaction) and efficacy (including weight loss and additional benefits to well-being). We will pilot the use of a Wellness Survey that can be used in the future, and we will collect feedback from employees by conducting a focus group.



Kara Mosesso, NP

"Developing and Assessing the Feasibility of Implementing a Video Web-Based Patient-Education Application"

The purpose of this protocol is to develop and assess the feasibility of implementing an interactive, web-based patient-education application promoting lifestyle modifications to reduce the incidence of metabolic syndrome and its individual medical conditions in participating patients following allogeneic stem cell transplant (allo-SCT). The educational material can be personalized based on defined clinical monitoring parameters and will be further tailored to the unique needs of the SCT population (i.e., accounting for neutropenia, anemia, thrombocytopenia, treatment for GVHD). Development of the web-based application will occur over a sixmonth period. Participant recruitment will occur over a six-month period, and participants will be able to use the program over a three-month period. Although the aim of this protocol is to develop and assess the feasibility of implementing the program, if it proves feasible, we will consider evaluating change in clinical parameters as part of a separate study.



Kimberly Chow, NP
"Piloting a NP-Led Palliative Medicine Clinic for the Pancreatic Cancer Population"

Our pilot project aims to introduce palliative care along with other supportive services from the outset as part of the oncologic treatment approach for patients with myelodysplastic syndromes (MDS) who establish care at MSK. The project will spotlight and support the role of oncology nurses in assessing patients' palliative care needs, collaborating with other oncology team members to provide primary palliative care, and obtaining specialist input when needed from dedicated palliative care nurse practitioners. With targeted training and system tool development, the intervention will better position oncology nurses, together with physicians and others, to help their teams optimize access to and integration of high-quality primary and specialist palliative care across the trajectory of cancer.

Kimberly Chow

NP COORDINATOR AND CLINICAL PROGRAM MANAGER; DIRECTOR, NP FELLOWSHIP PROGRAM

rom the time she was a bone marrow transplant nurse more than a decade ago, Kimberly Chow, NP, ANP-BC, ACHPN, knew that cancer patients needed more support from both a symptom and psychosocial perspective. So forging a career at Memorial Sloan Kettering in palliative care — the nature of which is sometimes still clouded by misconceptions — made perfect sense for the New York native.

Chow, who has been part of the Division of Survivorship and Supportive Care's Palliative Medicine Service since 2008, now oversees the service's nurse practitioners (NPs) and directs the NP Fellowship Program. She finds it especially gratifying that the number of NPs in both areas has significantly increased in just the last several years as MSK and its patients have started to embrace the power of palliative care.

"The misconception, though it's getting better, is that palliative care is the same as hospice and only comes into play when treatment stops or patients are nearing the end of life," she explains. "But what we try to teach others and get the world to understand is that palliative care starts as early as diagnosis and means excellent symptom management and psychosocial support. Palliative care is an approach to care, not just a type of treatment, and should be provided by all healthcare providers."

Here, Chow discusses the ways palliative care continues to be integrated into cancer care at MSK and the challenges that remain.

How does lingering misinformation about palliative care influence how patients and families turn to you as a resource?

Often misconceptions are addressed within the first few minutes of the initial visit. As soon as you explain what palliative care really is, patients feel more at ease, and it doesn't take long for them to open up to us about their struggles and concerns related to their cancer diagnosis and treatment. Our mission is to make sure that their symptoms are well controlled and that their care aligns with their treatment goals. Once patients and

families come to understand this, they often gladly embrace the care we provide.

What factors have fueled the expansion of nurse practitioners at MSK and the Palliative **Medicine Service?**

As the field continues to rapidly grow, we're realizing the nurse's crucial role in providing this type of care. In fact, nurses are extremely skilled in some of the best aspects of palliative care. Three years ago I was the only NP in our service, but now we have nine, with over half fellowshiptrained through MSK. This rapid growth is also due to excellent institutional support. With all of the exciting research MSK is doing, patients have to feel well in order to continue with these treatments, and that's part of the role we're playing. Everyone is now seeing that palliative care is part of what excellent cancer care is all about.

How do palliative care NPs collaborate with oncologists and other physicians here?

In particular, three of our NPs are working on the outpatient side, and one has been working in a newer embedded model of care since October 2015, sharing clinic space with our oncologists. She checks in with the oncology teams each morning to see if someone might benefit from a palliative care consult. After the patient is done seeing the oncologist, the embedded NP sees them in the same clinic space or in the chemotherapy chairs when they're getting infusions. Because of her presence, there's the opportunity for just-in-time visits — a patient may be uncomfortable and she can help.

How tightly woven should palliative care be into cancer care?

I think it has to be fluid. Because of the field's rapid growth, we're trying to figure out how to meet the needs of an institution where technically everyone would benefit from palliative care. We're still trying to better define what an oncology team should be doing upfront and what a palliative care specialist can do to support them. I think the term

"palliative care" still frightens some clinicians. But when you identify that what they've been doing all along is excellent palliative care, people will feel acknowledged for what they do. The future of palliative care here at MSK is in embedded models like the one we have in outpatient care, coaching and supporting the primary teams giving that care.

The NP Fellowship Program has also expanded since you've been its director. How and why?

The program, a one-year clinical nurse fellowship for master's prepared nurse practitioners, has been in place for more than 25 years. The training is similar to that of hospice and palliative medicine requirements for physicians. Three years ago, when I took over as fellowship director, we had one NP fellow. Now we have three each year. What we're seeing is that many NPs want this type of formalized training in order to be experts in their field of interest. As the fellowship has evolved, NPs are coming in with very different ideas of the type of palliative care they want to practice. This year, one is interested in pediatrics, another in geriatrics, and the third in underserved populations. It's been a really unique way to put NPs on a protected academic track where they have lots of support.

What exciting research is happening in the Palliative Medicine Service?

We do a lot of complex pain and symptom management here that other institutions haven't done, and individual practitioners on our service are looking at the way we use different medications to treat these symptoms. So we have a database people could really learn from. On a larger scale, many projects are in the early stages, including research gauging the impact of embedding NPs with oncology teams on treatment courses and outcomes. We're also looking at exploring how integrating palliative care as early as diagnosis by primary teams can improve outcomes and allow the community to be more open to this type of support throughout the disease trajectory.

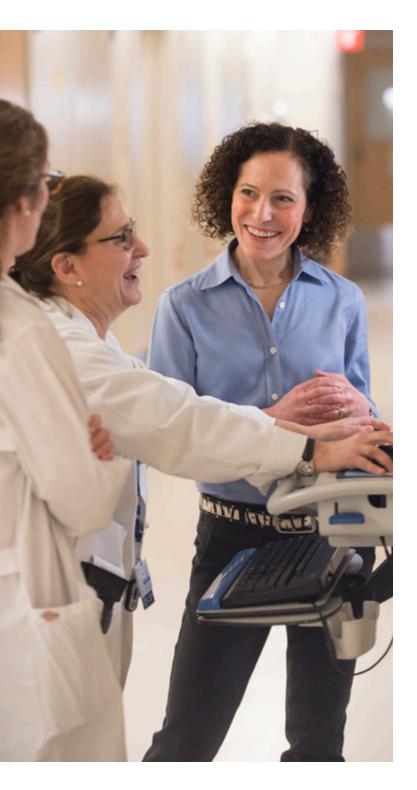


What are the biggest challenges remaining in palliative medicine in terms of optimizing patient care?

Man power and space. It sounds like a wonderful thing to have everyone educated and armed with palliative care skills, but it will still take lot of effort and work. Until then, we're trying as a service to meet the needs of the hospital, where many patients have poorly controlled symptoms or difficulty coping with their illness.

Space is a big issue in New York City, so while the embedded model of care is what we're hoping to move toward, a lot of that is reacting to the amount of space we have and carving out time with patients. With the high volume of patients we see here, it's still a challenge. But the rapid growth of our service and the acceptance by other teams I've seen instills the hope that we're not far from where we need to be.

Easing Transitions and Optimizing Value



eborah Korenstein, MD, would argue that the medical imperative "First, do no harm" is especially relevant to the work done in the Division of Survivorship and Supportive Care's General Internal Medicine Service.

Arriving at Memorial Sloan Kettering in December 2014, Dr. Korenstein focused her role on the value of care for patients with cancer, specifically seeking to minimize unnecessary and potentially harmful tests and treatments. Through quality improvement initiatives and research into factors leading to so-called "lower-value" care, the new service chief helped design and implement programs to optimize care.

The position here was one Dr. Korenstein felt she couldn't refuse, since it affords her the flexibility to pursue a true passion. Such efforts, she says, also fit right in with the service's general mission: to improve cancer care across the continuum.

"The best quality of care provides everything a patient needs and not things they don't need," she explains. "Every single thing we do subjects people to potential harm. Drugs have side effects, scans can lead to complications...so in that sense, it's a patient safety issue.

"To me, efficiency of cost savings is a happy result of doing the right thing for patients." Dr. Korenstein adds. "It's the reason this issue has come to national attention, but to me as a clinician, it's of secondary significance."

Parallels Between Oncology, General Internal Medicine

Dr. Korenstein hadn't worked in oncology until she came to MSK, practicing for many years as a general internist at Mount Sinai Health System. But she's noticed that the issues affecting cancer patients and a general patient population are "quite universal," making it easier for her to hit the ground running. A few notable differences remain, however. "Because cancer patients these days undergo very intense treatment, the benefits and harms are magnified," she says. "Because they're sick, the harms that can befall them are also really dramatic at times. Oncology patients are almost a magnifying glass for this issue. Even trivial issues can be important for them, and there are opportunities for improvement across the board."

Dr. Korenstein's initial efforts at MSK have concentrated on laboratory testing in hospitalized patients — an obvious issue since most clinicians agree that too many unnecessary tests are ordered in this group.

But the General Internal Medicine Service functions at many seminal points in a patient's course of treatment, she notes, including during perioperative care just after diagnosis and continuing well into long-term survivorship. In Dr. Korenstein's clinical work, she provides ongoing care to adult survivors of childhood and other high-risk cancers in the Adult Long-Term Follow-Up Program.

"We're looking at the whole person during their cancer journey. Overuse fits into those domains in many places, and we're really here as facilitators."

- DEBORAH KORENSTEIN, MD

Research Needed Before Changes Implemented

Research on lower-value care by Dr. Korenstein and her MSK colleagues will necessarily precede implementing specific changes at the hospital. "It's not an easy thing to fix," she says. "But I think our perspective of looking at the whole person helps us think about benefits and harms."

The already challenging task of deciding what to tackle is complicated by such aspects as national guidelines lacking a sharp focus for addressing appropriate care in certain clinical situations. Additionally, widespread research to support Dr. Korenstein's efforts is scarce. She and colleagues have uncovered only four studies done worldwide since January 2012 that evaluated an intervention to reduce medical services overuse in cancer patients.

"There are some opportunities for immediate action, and a lot of others require a long view of the process," she says. "I'm trying to identify some things I can do now and also work toward longer term, probably more impactful things that a broader community of clinicians will have to pay attention to."

Improving Patient Experience Facilitated by "Global Perspective"

Today's increasingly subspecialized cancer care affords General Internal Medicine physicians, nurses, and other staff a prized opportunity to uniquely improve patient experience, Dr. Korenstein says.

Part of the service's value lies in its "global perspective," she notes, focusing on issues spanning medicine and surgery.

"Our clinicians are the first [doctors that] patients see when they're in a very vulnerable place, newly diagnosed with cancer and about to have surgery to take it out," Dr. Korenstein explains. "We shepherd them into the experience, and we shepherd them out of it when they don't need to see an oncologist anymore.

"We provide all screening for cancers and bring patients back to their general doctors to join the noncancer world," she adds. "It's very powerful to be part of people's lives during those transitions, and I hope we can make them easier for patients."

Excellence in Nursing

emorial Sloan Kettering has long been proud of the exceptional care that our nurses provide to patients and their families. Our dedicated, compassionate nursing staff has achieved Magnet® recognition, the nation's highest honor for excellence in nursing. This prestigious designation, granted by the American Nurses Credentialing Center, marks the culmination of a concentrated years-long effort involving nurses at all levels, hospital leadership, and other staff — and validates the exceptional care that our nurses provide.

The Magnet Application Process

Appraisers review and score documentation demonstrating transformational leadership. shared governance, innovative practice and learning environment, patient outcomes, and nurse job satisfaction. If the institution's performance falls within a range of excellence, the appraiser team conducts an on-site visit.

"The journey toward MSK's Magnet recognition has required intense effort by every one of MSK's nearly 3,000 nurses, as well as the support and encouragement of their clinical and administrative colleagues. We need to give special thanks, however, to Annlouise Moran, our Nurse Leader, Magnet Program, for her focused, relentless quest to ensure that our hopes for Magnet recognition were realized," says Craig B. Thompson, MSK President and CEO.

MSK NURSING

Compassion Advocacy Relationship Excellence





(From left) Soo Kim, NP; Elma Thomas, RN; Katherine Romano, RN; Carol Ann Koehne, RN; Sincere McMillan, NP



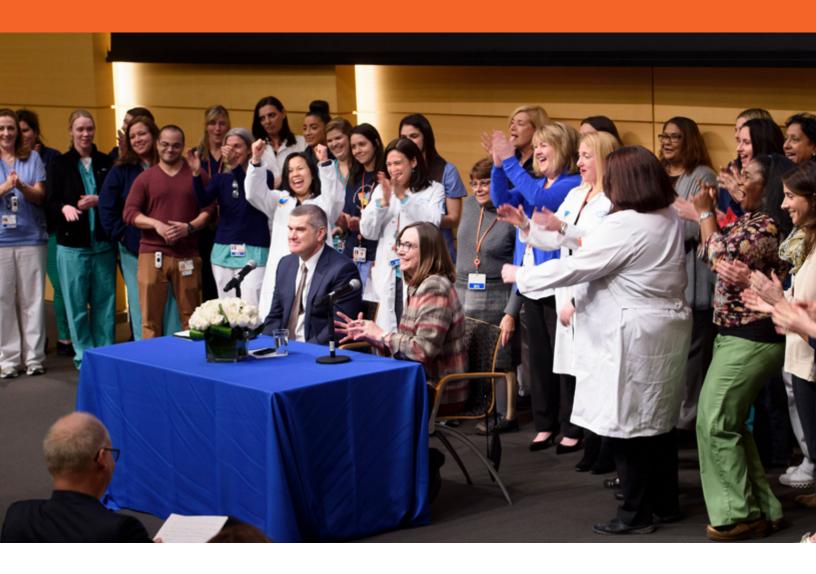
(From left) Jenn McEvoy, RN; Karen White, Unit Assistant; Erica Scott, Nursing Assistant; Sheila Spencer, RN; Sara Rasmussen, RN; Kerr Fellows, RN



Donna Wilson, Integrative Medicine Service



Melinda Gooch, RN; Patrick Murtagh, RN, General Internal Medicine Service





(From left) Bethany Paglianulo, RN; Deborah Semple, RN; Ethel Frierson, RN

"We have always known that MSK nurses are in a class of their own, and today we received official word that the rest of the world will know too."

 CRAIG B. THOMPSON, MD MSK PRESIDENT AND CEO

Annual Survivorship Celebration

o mark National Cancer Survivors Day, MSK hosts its annual Survivorship Celebration to acknowledge and honor survivors' strength, courage, and resilience. Feelings of joy, hope, and camaraderie are always apparent among the more than 2,000 patients and their guests, caregivers, and healthcare providers who attend our cancer survivorship celebrations. The 2016 keynote speaker was Olympic gold medalist, television broadcaster, and cancer survivor Scott Hamilton.

"This evening belongs to our cancer survivors, their families, their friends, and their caregivers. It is our unique opportunity to honor them this evening."

- MARY MCCABE



Mary McCabe(left), Scott Hamilton, and Karri Morgan, Executive Director of the Scott Hamilton CARES Foundation



"The real reward for us at Memorial **Sloan Kettering is seeing our Survivorship Celebration grow larger** and larger with each passing year. **Every employee at MSK comes to work** every day to help patients overcome the obstacles that cancer puts in their way. And that's why this event is so special — so we can hear your stories and thank you for inspiring us."

> - CRAIG B. THOMPSON, MD, MSK PRESIDENT AND CEO

Senior Health and Fitness Day

ntegrative Medicine and the Geriatrics Service recently teamed up to organize a Senior Health & Fitness Day event, a national recognition of older adults' wellness needs. On May 26, an enthusiastic group of senior patients joined the Integrative Medicine Service's Clinical Fitness Specialist Donna Wilson, RN, MSN, RRT for a free exercise



class, gaining advice, support, and motivation for exercising. Jeannine Nonaillada, PhD, OTR/L, BCG, from the Geriatrics Service provided resources on balancing other health needs, such as fall prevention and drug interactions.

Cancer surgery and certain drugs can accelerate the rate of deterioration. Integrative Medicine offers weekly exercise classes and personal-training sessions that are open to patients of all ages and stages of treatment and survivorship.

Encouraging older patients to add 30 minutes of exercise five days a week can help achieve these benefits:

- Decrease cancer-related fatigue
- Build muscular strength
- Make bones stronger
- Increase balance
- Improve sleep patterns
- Decrease anxiety and depression



Hospitalists Increasingly Integral to MSK's Stellar Inpatient Care

s she now sees it, Barbara Egan, MD, was hired by Memorial Sloan Kettering a dozen years ago as an experiment. Dr. Egan was MSK's very first hospitalist — a physician who specializes in delivering comprehensive medical care to those who are hospitalized. Prior to 2004, only oncologists cared for inpatients here, not internists. But as cancer care increasingly focused on outpatient and clinic-based appointments, it became apparent that "hospitalists could free oncologists to do what they do best, which is to treat cancer patients, which is mostly an outpatient endeavor," explains Dr. Egan, now Chief of the Hospital Medicine Service in the Division of Survivorship and Supportive Care.

Perhaps the best proof of the value now placed on hospitalists at MSK was the designation of Hospital Medicine as an independent service in 2014. Previously, it had been a subgroup within General Internal Medicine, she says, but its "growth and maturity" demonstrated the need for a more formalized role.

"It's an experiment that I think worked really well because now there are more than 20 hospitalists at MSK," she adds. "The field of oncology hospital medicine is also much more prevalent nationally now."

Caring for Hospitalized Patients a "Team Sport"

Dr. Egan originally steered her career toward hospital medicine because she relishes the intensity of inpatient work and its inherent requirement to work collaboratively. In this regard, she hasn't been disappointed at MSK, where the majority of faculty members in the service are double board-certified in both internal medicine and hospice and palliative care.

"Caring for hospitalized patients is absolutely a team sport," Dr. Egan says, noting that the service is integrated into a multidisciplinary hospital team that also includes nurses, case managers, and social workers, among others.

While much of current oncology training focuses on outpatient care of cancer patients, "we may have a little more familiarity and comfort with inpatient conditions, which can be very distinct from what is seen in clinic."

Patients also can benefit from hospitalists' undivided focus, since they're not "racing off to the clinic or fielding calls from outpatients," Dr. Egan says. "We're 100 percent focused on inpatients. We also bring up specialized skills in palliative medicine — we know hospitalized cancer patients are suffering a tremendous burden of symptoms often related to late-stage disease. and we can provide comprehensive care of those symptoms without calling in a consultant to help."

Indeed, the service's mission aligns perfectly with the prevailing needs of this patient group. Working mainly with GI oncology inpatients, MSK hospitalists typically see patients "at a most critical and vulnerable time," says Dr. Egan, who became a Senior Fellow of the Society of Hospital Medicine in 2010, an honor that recognizes her commitment to the field of hospital medicine and her demonstrated excellence in leadership, teamwork, and quality improvement.

"First and foremost, we want to provide the highest quality care to hospitalized cancer patients through the trajectory of their illness, from diagnosis to survivorship or end of life."

- BARBARA EGAN, MD

Service Also Leads in **Educational Programs**

Dr. Egan's role at MSK also encompasses teaching. another huge priority for her. Working with a medical student, two residents, and three interns at a time, she starts a typical day at 8 AM, making



rounds with this group and discussing each patient's case. The recipient of the MSK Division of Medicine Teacher of the Year Award in 2008, Dr. Egan also ran a broad-based clinical training program at MSK for physicians just out of medical school — the largest program in the Department of Medicine — for 10 years, only recently stepping away from that role.

"The institution has given us quite a bit of responsibility as far as driving high-profile and important educational programs," she notes. "That speaks volumes about the way the service is valued and viewed."

Dr. Egan has also been tapped to participate on a small panel of expert physicians, stemming from a partnership formed last year between The Hastings Center, an independent bioethics research institute, and the Society of Hospital Medicine to improve end-of-life care in the hospital. Panel members will create guidelines for frontline hospital clinicians on discussing care preferences as a patient's condition changes.

"This is an issue I care deeply about and is very fulfilling to me," she says. "With the new CMS (Centers for Medicare and Medicaid) mandate to allow reimbursement for end-of-life planning, it's important that we arm hospitals with the tools to do this well."

Quality Care 24-7

Dr. Egan feels it's important to publicly recognize a largely unsung group that greatly adds to the quality of the Hospital Service's care: the so-called "nocturnalists" who work exclusively at night, between 7 PM and 7 AM. Since some hospitalized patients' conditions inexplicably worsen during the wee hours, these physicians — many whom are young and in the formative stages of their careers — "face a unique set of challenges, since some resources aren't available at night but patients' needs don't end when the sun goes down," she says.

"Patients and families assume, of course, that the hospital keeps running, but it only happens because a team of doctors works really hard to maintain quality and safety," Dr. Egan adds.

As her tenure continues, Dr. Egan hopes that MSK will expand hospitalists' role beyond gastrointestinal oncology to other solid tumor services.

"I think it's in the near-term future," she says. "We've been able to demonstrate through research, when comparing inpatient care by hospitalists versus oncologists in the GI Unit, the care is completely equivalent between the two groups. So it can really be of value to the institution to expand the type of care that hospitalists give."

Jun Mao

CHIEF, INTEGRATIVE MEDICINE SERVICE

ess than two decades after establishing the nation's first integrative oncology program, Memorial Sloan Kettering has endured as a trailblazer in the field with the recent hiring of Jun Mao, MD, MSCE, as the newest Chief of the Integrative Medicine Service.

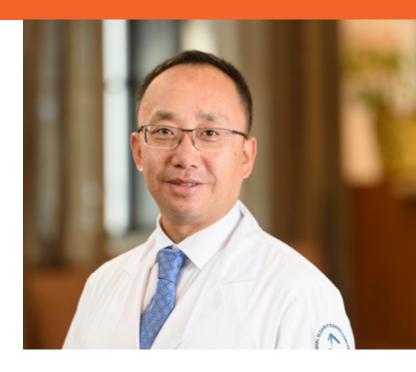
After a 12-year stint developing the integrative oncology program at University of Pennsylvania's Abramson Cancer Center, Dr. Mao arrived in 2015 with a clear vision: to make MSK the world leader in the discovery, translation, and dissemination of evidence-based integrative healthcare to improve outcomes for patients with cancer.

Also President of the Society for Integrative Oncology, a group with 458 members, who hail from 19 countries, Dr. Mao aims to promote integrative medicine — which blends complementary such therapies as massage. acupuncture, and music therapy with conventional cancer treatments — as a standard part of cancer care, not an afterthought.

"I think most of the American public at this point has a fairly general and probably accurate perception of what integrative medicine can and can't do," Dr. Mao explains. "But still, a small proportion of clinicians and patients feel integrative medicine should be used alone, instead of conventional treatment. Fortunately that number is small, but I still think a fair amount of education needs to be done about the importance and value of some integrative medicine therapies and what they can do for symptom control."

Founded in 1999 by Barrie Cassileth, PhD, MSK's Integrative Medicine Service boasts one of the largest such programs in the United States, with 58 staff and faculty members. Even since Dr. Mao — also a board-certified family physician and licensed acupuncturist — took the helm, the number of integrative medicine physicians here has doubled from two to four.

Nationally, between 40 percent and 60 percent of all cancer patients utilize some form of integrative medicine, and Dr. Mao is in the process of analyzing those percentages at MSK, where 22,000 integrative medicine visits took place last



year. "My gut feeling is we're probably touching a small proportion of patients overall," he says, "but our goal is to increase access to patients in a much more integrated and impactful fashion."

In this interview, Dr. Mao details the range of integrative therapies available to MSK patients and the challenges inherent in seamlessly blending these therapies into standard care.

What is the biggest misconception about integrative medicine and what it seeks to accomplish?

Some people still think integrative medicine is alternative. But integrative medicine doesn't seek to replace conventional cancer treatments, such as chemotherapy, radiation, and surgery. Rather, its goal is to augment conventional treatments to improve symptom control and quality of life, as well as help patients through survivorship. We don't advocate using alternative approaches instead of conventional treatment, but we want to integrate that with evidence and safety to bring about the best outcomes.

What complementary therapies does MSK's Integrative Medicine Service offer and how do they address patients' physical, emotional, and spiritual needs?

We offer physician consults to patients about comprehensive care incorporating lifestyle, mindbody therapies, and information about potential

interactions of herbs and other supplements with conventional cancer treatments. Our modalities include acupuncture; massage; mind-body therapies, such as yoga, tai chi, and meditation; exercise and diet counseling; and music therapy in an inpatient setting. For pediatric patients, we also offer martial arts therapy and multisensory dance therapy to help them cope with treatment side effects.

Based on research done in our Integrative Medicine Service and elsewhere, we already know that acupuncture, yoga, massage, and music therapy can reduce symptoms of pain as well as emotional distress and insomnia. Many complementary therapies cultivate a sense of finding peace and meaning in the context of cancer. As a result, there's a greater overall sense of physical, emotional, and spiritual well-being.

What is the optimal result when integrative medicine is strategically incorporated into a patient's conventional cancer treatments?

Integrative medicine can really be a very important tool for patients dealing with symptoms and side effects of treatment, such as pain, fatigue, sleep disturbances, and anxiety and depression. As a result, it may enhance their ability to tolerate some cancer treatments, particularly chemotherapy or hormonal therapies, such as in breast cancer. It not only enhances their quality of life and improves their physical and cognitive function but also presents the opportunity to improve patients' adherence to conventional treatment and, as a result, possible overall survival rates. We're still researching these effects.

What research are you or colleagues currently undertaking that you find especially compelling?

We have several research projects in progress. One randomized trial, called CHOICE (choosing options for insomnia in cancer effectively) is comparing the effectiveness of acupuncture versus cognitive behavior therapy for insomnia in cancer survivors, with 80 participants in each group. Another of our studies, which examined the barriers to acupuncture utilization among women with breast cancer, has shown that 50 percent of

cancer patients have no idea what acupuncture is. People simply do not know how it can help their symptom management, and that's a huge barrier.

In the medical literature, we also see that people who are highly educated are much more likely to use integrative medicine. The field of integrative oncology is only in its second decade, so we definitely have more evidence than we did in 1999 when our service was established, but we still have a long way to go to build definitive evidence in the field, in addition to educating patients and clinicians about the evidence as it accumulates.



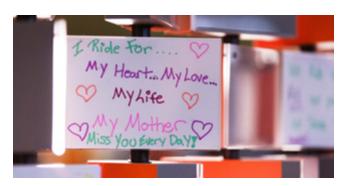
What are the biggest remaining challenges in promoting integrative medicine that are specific to cancer patients?

There are several. One is producing really large, rigorous clinical trials to establish evidence in our field. The second involves insurance coverage: We already have therapies demonstrated to be beneficial for cancer symptoms, but until these therapies are covered by insurance, we're still going to have access issues.

Another issue is education. As our type of program increases nationally and globally, the need for highly qualified integrative medicine providers is becoming huge. How do we provide a pipeline to grow this field? And last but not least, a real challenge is how to best integrate our therapies into standard cancer care. Studying how individual therapies are successful doesn't necessarily lead to optimal integration, so there are still unanswered questions about how best to integrate therapies into a patient's treatment trajectory to make it seamless and improve outcomes.

Philanthropy

Meg's Team, a part of Fred's Team, is Memorial Sloan Kettering's athletic fund-raising program dedicated to bringing us closer to a world without cancer. Established by Dr. Kevin Oeffinger in 2010, in memory of one of his patients, the Meg Berté Owen Fund honors Meg's life by supporting cancer survivorship research at Memorial Sloan Kettering. Each year a group of runners from Meg's Team, set out to complete the strenuous 26.2 miles in the New York City Marathon. Their efforts not only honor Meg but all those who have lost their fight.



Cycle for Survival 2016 Tribute Wall



Kevin Oeffinger, MD, pays tribute to a former patient with Meg's team members and supporters.

The Andréa Rizzo Foundation was established in memory of Andréa Rizzo, a beautiful young woman who survived childhood cancer and was tragically killed at the age of 24 by a drunk driver. Her dream was to become a dance therapist and give children with cancer and disabilities the gift of dance. With the support of many, including the Integrative Medicine Service at Memorial Sloan Kettering, her dream has become a reality. The foundation's goal is to foster Andréa's dream of helping children with cancer and special needs through the power of dance.

The Gabrielle's Angel Foundation for Cancer **Research** encourages development of moreeffective therapies for patients with leukemia, lymphoma, and related cancers. The foundation, with help from the Integrative Medicine Service, funds research to improve the efficacy of cancer treatments, reduce their toxicity, and improve patients' quality of life. The research will spark novel therapeutic approaches that could replace or be used in combination with existing effective therapies. Such therapeutic approaches could include alternative or complementary medicine.

The MSK Employee Wellness Program is supported in part through the generosity of the **Frederick Henry Prince IV Family Hospital** Morale Program.

The Integrative Medicine Service is thankful for the individual gifts that are received in honor of Donna Wilson.











Team UCC rides and raises funds for research on finding a cure for rare cancers.

Cycle for Survival is the national movement to beat rare cancers. The high-energy indoor team-cycling event provide a tangible way for participants to fight back and 100 percent of Cycle for Survival funds go directly to research initiatives at MSK within six months of the events. To date, Cycle for Survival has raised over \$106 million for rare cancer research and has founded over 100 clinical trials and research studies.

Jennifer and David Linn co-founded Cycle for Survival in 2007 and 2009. Since then it has become an official MSK event, with Equinox becoming the founding partner. Mrs. Linn who was first diagnosed with sarcoma in 2004, passed away

in 2011, but her indomitable spirit and extraordinary legacy live on through Cycle for Survival.

In 2014, the Cycle for Survival national movement had several exciting firsts, including kicking off the season with the Times Square Takeover ride, an appearance on *Good Morning America*, ringing the opening bell at the New York Stock Exchange, and inaugural rides in South and Pacific Northwest. Nearly 17,000 indoor cyclists participated in 2014 to raise \$20 million at events at Equinox clubs in 12 cities: New York City; Roslyn, New York; San Francisco; Los Angeles; Washington, D.C.; Boston; Greenwich, CT; Miami; Summit, NJ; Dallas; Palo Alto; and Seattle.

PARTICIPANTS

Koshy Alexander Hilda Andrade Laura Andwood Grace Caufield Kathryn Edwards Shelley Fridman Maria Gonzalez Lisa Groden Jerrfrey Groeger Daniel Haughie Courtney Langan Sincere McMillan

Cassandra Mishrick Molly Nussbaum Justin O'Leary Robin Stutman Jonathan Tarquinio Anna Vagner Kiran Virdee Sung Wu Sun Lindsey Yulo

Awards

Employee Health and Wellness Service



Arthur E. Brown, MD, MACP

Master of the American College of Physicians Top Doctors in New York City Metro Area Who's Who in America



Alan L. Engelberg, MD, MPH

Board of Directors, American College of Occupational and **Environmental Medicine**



Rebecca S. Guest, MD, MPH

Fellow of the American College of Occupational and **Environmental Medicine**

Geriatrics Service



Beatriz Korc-Grodzicki, MD, PhD

The 2015 Geriatric Workforce Enhancement Program grant.

\$100,000 from the Beatrice and Samuel A. Seaver Foundation to support the program of cancer and aging at Memorial Sloan **Kettering Cancer Center**



Armin Shahrokni, MD, MPH

The 2015 Clinical Scholar Award from the Alliance for Clinical Trials in Oncology.



Sincere McMillan, MSN, ANP, RN

The Change Agents Action Award by Hartford Foundation for her proposal titled "Bridging from Novice to Knowledge: Implementing a Geriatric Oncology Curriculum for Nurse Practitioner Students"

Hospital Medicine Service



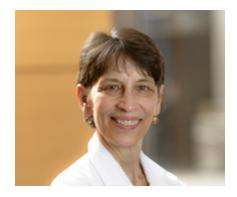
Cori Salvit, MDExcellence in Teaching Award,
Fourth-Year Subinternship

Palliative Medicine Service



Kimberly Chow, NP, ANP-BC, ACHPN

2015 Samuel and May Rudin Nursing Award for Excellence in Advanced Nursing Practice



Judith E. Nelson, MD, JD

5th Annual Henning Pontoppidan MD Visiting Professorship Award for her teaching in anesthesia, critical care, and pain medicine at Harvard Medical School

Integrative Medicine Service



Jun Mao, MD, MSCE

MSK's first Patient Centered Outcomes Research Institute (PCORI) grant for his work titled "CHoosing Options for Insomnia in Cancer Effectively (CHOICE): A Comparative Effectiveness Trial of Acupuncture and Cognitive Behavior Therapy"

Survivorship — General Internal Medicine



Nirupa Raghunathan, MD

Clinical and Translational Science KL2 Scholar Award for her project titled "Statin Use in Survivors of Childhood Cancer: Tools for Improved Communication"

MSK Survivorship Champion Mary McCabe Recounts Victories, Challenges as Retirement Nears

y all rights, **Mary McCabe, RN, MA**, has earned a victory lap for her tireless efforts on behalf of cancer survivors over the course of her career. But the Director of Clinical Programs for Memorial Sloan Kettering's Cancer Survivorship Center — whose mission is to continue shaping the field and establishing oftreplicated standards of care — refuses to rest even as her retirement from MSK looms.

McCabe's 13-year tenure here has produced a surge of initiatives boosting attention and care for cancer survivors, as well as pivotal research delving into this growing population's longterm treatment effects and ongoing needs. With an estimated 15 million cancer survivors in the United States — a number predicted to grow to 18 million by 2020 — McCabe and her colleagues in the Division of Survivorship and Supportive Care, along with other MSK divisions, have relentlessly advocated for this patient population.

As she steps down from her role at MSK, McCabe contemplates her many contributions to this dynamic aspect of cancer care and the challenges that still lay ahead. With major input from McCabe on how to pilot models of survivorship care — particularly those integrating nurse practitioners into survivors, clinics — MSK created the Cancer Survivorship Center in 2014 to combine its Survivorship Initiative with various related programs and to provide an infrastructure to promote cancer survivorship studies.

"Our institution has taken a lead nationally in survivorship care, highlighting its importance in the healthcare continuum. Seeing how MSK is viewed as a leader is important and satisfying to me."

- MARY MCCABE, RN, MA

"Wonderful Opportunity" to Shape **Care Delivery for Survivors**

Recruited in 2003 from the National Cancer Institute to lead MSK's then newly launched Survivorship Initiative, McCabe arrived at a time when cancer centers didn't provide comprehensive services for survivors across all age groups. MSK's Department of Pediatrics had launched the Long-Term Follow-Up Program one of the earliest such programs in the country - for children in 1990, but it was high time to establish a similar initiative for patients treated for adult-onset cancers.

Her task was to help develop a comprehensive program for adults, one encompassing follow-up care, research, and education and training. But the oncology nurse - also chair of MSK's Ethics Committee - wasn't daunted, recognizing that a convergence of factors would ease the path.

"A few things came together at that time, specifically national recognition of the increasing number of cancer survivors and a developing body of research focusing on the long-term and late effects experienced by people successfully treated for cancer." she says, "Memorial Sloan Kettering, always looking to be forward-thinking and on the cusp of research and clinical care, was committed to launching a whole new endeavor.

"I thought it was a wonderful opportunity," McCabe adds. "It was an opportunity to start something new and novel and think about a whole new way of delivering care."

Nurse Practitioners are "Orchestra Conductors" for Post-Treatment Patients

A huge part of McCabe's vision centered on developing an NP-led model of survivorship care at MSK that has embedded these advanced practice providers within the clinical team for disease-specific follow-up. As patients complete treatment, they transition from the care of their

oncologists and nurses to NPs. This enables team members to bring in new patients and to continue caring for patients with complex advanced disease, while those individuals who are progressing well are followed by an NP who is part of the team they've come to trust and rely on.

Adopted after much collaboration between a steering committee formed by McCabe and many staff members, the first MSK survivorship clinics based on this model served lymphoma, thoracic surgery, and prostate surgery patients. Now MSK also provides follow-up care for survivors of breast, cervical, colorectal, endometrial, esophageal, head and neck, kidney, lung, ovarian, prostate, and thyroid cancers, along with survivors of melanoma and patients who have undergone blood and marrow stem cell transplantation.

"This is an ideal role for NPs, and they've been very eager to take on the responsibilities of care for cancer survivors," McCabe says. "It's an independent role that allows them to practice at the highest level of nurse practitioner training, and we've been able to recruit 21 outstanding NPs as well as two physician assistants.

"NPs are essential to the model of care we've developed," she adds. "In many ways, they're the orchestra conductor for the patient post-treatment to ensure that the kinds of services that the patients need are available, whether at our institution or the outside community."

Proving Survivorship's Value Among Remaining Challenges

Survivorship clinics launched at several of MSK's regional facilities in the last several years are evidence of the hospital's ability to "take a particular model of care and evolve it in a way that remains very functional," McCabe says. She believes that survivorship care and research — which at MSK has notably included studies focusing on the neurocognitive effects of chemotherapy and the role of exercise in cancer



recurrence — must be able to prove its worth as reimbursement models continue to change within healthcare as a whole.

"There is an increasing focus on value, and we're going to have to fit survivorship care into the value proposition," says McCabe, who plans to move to Washington, D.C., after her retirement but still work part-time in a variety of roles in the field. "It's a concern for everyone, and survivorship is sort of the new kid on the block." We are confident that we can demonstrate value to patients, caregivers, and payers both in terms of better long-term outcomes, and better patient experience.

MSK Survivorship Center Educates Centers Around the World

ince 2005, the MSK Survivorship Center has hosted over 173 national and international site visitors who have a keen interest in learning about the services and resources that MSK is able to offer cancer survivors. The Survivorship Center hosted 16 groups in 2015. It is projected that by the end of 2016 the Survivorship Center will educate even more. Each healthcare center is asked to provide a detailed list of the educational goals that they hope to accomplish during their visit; this list helps guide meeting strategies and planning to ensure that the site visitors are learning the most from their visit.



SURVIVORSHIP CENTER VISITORS

Asan Medical Center

Seoul, Korea

Barcelona Children's Hospital

Barcelona, Spain

Bupa Health Foundation

London, United Kingdom

Edith Cowan University Health and

Wellness Institute

Perth, Australia

Epworth HealthCare

Melbourne, Australia

Epworth Rehabilitation

Melbourne, Australia

Flinders Medical Center

Adelaide, Australia

Henry Ford Health System

Michigan, United States

Moncrief Cancer Institute

Texas, United States

Mater Private Hospital

Dublin, Ireland

Murtha Cancer Center

Maryland, United States

National Institute of Cancer of Mexico

Mexico City, Mexico

Peter MacCallum Cancer Center

Melbourne, Australia

PIC, Institute of Molecular and Ontological

Medicine of Asturias

Asturias, Spain

University Cancer Center Hamburg

Hamburg, Germany

University of New South Wales

Sydney, Australia

Royal Marsden Hospital, Breast Unit

London, United Kingdom

Sheba Medical Center

Ramat Gan, Israel

PRESENTATIONS

Survivorship

Joanne Kelvin

"Current Approaches to Fertility Preservation." NCCN Annual Nursing Program: Advancing Oncology Nursing, Hollywood, Florida, 2015.

"Current Approaches to Fertility Preservation." NCCN Webinar, 2015.

Stacie Corcoran

"Cancer Survivorship." Leukemia and Lymphoma Society Conference for Patients and Caregivers, 2015.

"Caring for Cancer Survivors: Identification and Management of Long-term and Late Effects." Oncology Nursing Society, Upstate New Jersey Chapter Conference, 2015.

"Cancer Survivorship." New York City Police Department's First Annual Cancer Awareness Symposium, 2015.

"Incorporating Survivorship Care into Practice." Advanced Practitioner Society for Hematology and Oncology Annual Conference, 2015.

Mary McCabe

"Moving Survivorship Care Forward: Lessons from Quality Measures" and "Using Quality Measures to Guide Improvements in Survivorship Care." ASCO Annual Meeting, Chicago, 2015.

"Survivorship Care Planning and the Delivery of Coordinated Care." National Coalition for Cancer Survivorship, Cancer Policy Advocate Training. Washington D.C., 2015.

"Delivering High-Quality Cancer Care: Challenging a New Course." San Francisco Bay Area ONS 15th Annual Oncology Care Update, San Francisco, 2015.

Geriatrics

Beatriz Korc and Armin Shahrokni

"Care of the Older Adult Across the Cancer Continuum." Symposium at MSK, 2015.

"Risk Assessment and Treatment Considerations in the Elderly Patient with Head and Neck Cancer." ASCO Invited Speaker: Beatriz Korc-Grodzicki, 2015.

Hospital Medicine

Douglas Koo

"Palliative Care for the Hospitalist." 2015 Mid-Atlantic Region SGIM Conference, Hershey, Pennsylvania, 2015.

Lisa Diamond

Invited Presentation, Department of Medicine Grand Rounds at Northwell Health (formerly NSLIJ), 2015.

"Caring for the Hospitalized Patient with Cancer." Society of General Internal Medicine Annual Meeting, From Screening to End of Life: Caring for Patients across the Cancer Control Continuum Symposium, Toronto, Canada, 2015.

"Standardizing the Way Clinicians Report their Non-English Language Proficiency Levels." International Conference on Communication in Healthcare in New Orleans, 2015.

Nancy Tray

"Therapy-Related Myeloid Neoplasms Are Associated with Unique Somatic Mutation Profiles Compared with De Novo Myelodysplastic Syndromes and Acute Myelogenous Leukemia." MSK Survivorship Symposium Abstract.

Barbara Egan

"Oncology Hospital Medicine Special Interest Forum." Society of Hospital Medicine Annual Meeting, 2015.

"Oncology Hospital Medicine Special Interest Forum." Society of Hospital Medicine Annual Meeting, 2016.

Cilian White

"The Daily Draw: Clinical Perceptions of Inpatient Laboratory Testing." Lown Institute's Fourth Annual Conference, Chicago, 2016.

Elina Tsyvkin

"Narratives of Patients with Sickle Cell Anemia." American Society of Hematology Annual Meeting, 2015.

Employee Health and Wellness

Arthur E. Brown

Mentorship Breakfast for Medical Students, Annual Scientific Meeting of the American College of Physicians, Boston, 2015.

"Friday Afternoon with the Infection Control Pager." Infectious Diseases Society of New York, Fellows' Program, Albert Einstein College of Medicine of Yeshiva University, New York, 2015.

"Marketing Strategies: Branding and Communications at MSK Wellness." Wellness Working Group, Greater New York Hospital Association, New York, 2015.

"Blood Borne Pathogen Exposures and Post Exposure Prophylaxis." Advanced Topics in Infectious Diseases, Infectious Disease Service, Department of Medicine, MSK, New York, 2015.

Rebecca S. Guest

"Building Resilience among Medical Center Staff." Association of Occupational Health Professionals, San Francisco, 2015.

"Work-Life Balance in Medical Education." American Society of Clinical Oncology, Chicago, 2015.

Physicians' Wellness, Residency, and Fellowship Directors' Retreat, Arlington, VA, 2015.

"Memorial Sloan Kettering's Building Resilience Wellness Program." Greater New York Hospitals Association, Wellness Work Group, New York, 2016.

Anabella Lucca Bianchi

"Value in Practice Session — Avoid Testing for C. diff Infection in the Absence of Diarrhea." House Staff Conference, Department of Medicine, MSK, New York, 2015.

"Infection Control & Employee Health: Research Opportunities." Infectious Diseases Research Conference, MSK, New York, 2015.

General Internal Medicine

Emily Tonorezos

"Exercise and Quality Diet after Leukemia: The EQUAL Study." Grand Rounds, Department of Psychiatry and Behavioral Health, MSK, New York, 2015.

Childhood Cancer Survivors "Cure Is Not Enough," Advocate Children's Hospital, Chicago, 2015.

Palliative Medicine

Jason Meadows

"Giving Naloxone Safely: An Examination of a Misunderstood Medication." Quality and Performance Improvement Fair, MSK, New York, 2016.

POSTERS

Survivorship

Joanne Kelvin

Benedict C, Thom B, Kelvin J. (2015, April). Fertility Preservation: Factors Contributing to Decision Regret among Young Adult Female Cancer Survivors. Women's Health: The 23rd Annual Congress, Washington, D.C., 2015.

Benedict C, Thom B, Kelvin J. Decision Regret About Fertility Preservation among Young Adult Female Cancer Survivors. Society of Behavioral Medicine, San Antonio, Texas, April

Thom B, Benedict C, Friedman DN, Diotallevi D, Pottenger E, Kelvin J. Impact of Income on Fertility-Related Information Needs, Reproductive Concerns, and Fertility Preservation Decisions among Young Adult Female Cancer Survivors. Critical Mass Annual Conference, Chicago, November 2015.

Geriatrics

Beatriz Korc and Armin Shahrokni

Romano K. Mahmoudzadeh S. Korc-Grodzicki B. Shahrokni A. SA-ICAN via WoW: A New Model of Outpatient Postoperative Geriatric Care in Cancer Patients. American Geriatric Society, 2015.

Alexander K, Shahrokni A, Mahmoudzadeh Pournaki S, Korc-Grodzicki B. Skilled Care Utilization after Abdominal Cancer Surgery in Older Patients. American Geriatric Society, 2015.

Shahrokni A, Pinheiro N, Mahmoudzadeh S. The Effect of Age on Technology Acceptance by Cancer Patients. American Geriatric Society, 2015.



Boparai MK, Korc-Gordzicki B, Mahmoudzadeh Pournaki S, Shahrokhni, A. Prevalence of Polypharmacy in Older Adults with Cancer Who Underwent Intra-Abdominal Surgeries and Its Relationship to Geriatric and Clinical Outcomes. American Geriatric Society, 2015.

Shahrokni A, Mahmoudzadeh Pournaki S, Korc-Grodzicki B. The Impact of Immediate Geriatric Assessment on Inpatient Postoperative Outcomes in Older Abdominal Cancer Patients. American Geriatric Society, 2015.

Palliative Medicine

Alison Wiesenthal

Wiesenthal A, Lucca Bianchi A, Sidlow R, Seo S, Korenstein D. Inpatient Care at the End of Life: A Closer Look. Palliative Care in Oncology Symposium, Boston, 2015.

Wiesenthal A, Dave V, Glare P. Evaluation of the MPM2 Score versus Clinical Predictions of Mortality in a Tertiary Cancer Center. American Society of Clinical Oncology Annual Meeting. Chicago, 2015.

Natalie Moryl

Wiesenthal A, Moryl N, Glare P. Long or Short Acting Opioids in Cancer Pain Management: What Is the Best Ratio? Palliative Care in Oncology Symposium, Boston, 2015.

Moryl N, Wiesenthal A, Nikolova T, Griffo Y. Opioid Analgesics in Cancer Survivors: What to Expect. Cancer Survivorship Research Symposium, MSK, New York, 2015.

General Internal Medicine

Emily Tonorezos

Tonorezos E. Hepatic Adenoma among Adult Survivors of Childhood Cancer, 14th International Conference on Long-Term Complications of Treatment of Children and Adolescents for Cancer, Arlington, Virginia, 2015.

Integrative Medicine

Choosing Options for Insomnia in Cancer Effectively (CHOICE)

Mao JJ, PI

A comparative effectiveness trial of acupuncture and cognitive behavioral therapy for insomnia in cancer survivors via a mixed-methods clinical trial design.

Comparative Effectiveness of Acupuncture for Chronic Pain and Comorbid Conditions in Veterans

Mao JJ, PI

This project seeks to evaluate the effects of electroacupuncture and battle field acupuncture for chronic pain and its associated psychological conditions in veterans.

Estrogen Deprivation and Aromatase Inhibitor Associated Arthralgia

Mao JJ, PI

This grant seeks to understand the relationship among genetic polymorphisms in estrogen synthesis and metabolism, estrogen withdrawal, and onset and severity of aromatase inhibitor associated arthralgia among breast cancer survivors.

Reproductive Health Survivorship Care Plan

Mao JJ, Co-investigator; Su, HI, PI

This grant seeks to develop a novel survivorship care tool to meet young breast cancer survivors' needs for reproductive health information and care.

Retention in Cancer Clinical Trials: Modeling Patients' Risk-Benefit Assessment

Mao JJ, Co-investigator; Ulrich C, PI

This study seeks to examine the relationship between patient-participant, clinical, and investigator characteristics and other external influences on patient-participants' risk-benefit assessment; and to examine the relationship between risk-benefit assessment and retention in CCTs.

University of Pennsylvania Cancer Center Core Grant

Mao JJ, Staff Scientist; Deng CV, PI

To develop a program of research on complementary and integrative medicine for cancer patients and survivors in the University of Pennsylvania's Abramson Cancer Center.

Survivorship - General Internal Medicine

Canadian Team to Improve Community-Based Cancer Care along the Continuum (CanIMPACT)

Oeffinger KC, Scientific Advisory Committee; Grunfeld E, PI

This program grant aims to develop an inter-disciplinary multi-jurisdictional coordinated program of research and knowledge transfer to enhance the capacity of community-based primary healthcare (CBPHC) to provide care to cancer patients and improve the link between CBPHC and specialty care along the cancer care continuum.

Cancer Center Support Grant — Outcomes and Risk (SOAR) Program

Oeffinger KC, Co-Leader; Thompson CB, PI

The SOAR Program is one of the 10 research programs at MSKCC that is included in the P30 Cancer Center Support Grants (CCSG) for NCI-designated cancer centers. The SOAR Program encompasses the studies of investigators involved in research in cancer control, prevention, and population science. As program co-leader, it is my responsibility to steer the direction of our program's research and ensure that there are venues to allow program members to collaborate with each other, as well as with members of other cancer center programs. Financial support is not provided for the 1.80 calendar months.

Chronic Disease Working Group

Oeffinger KC, Executive Committee Chair; Armstrong GT, PI

The aim of this multicenter study is to determine the efficacy of a stepwise two-component intervention on mammogram screening rates compared to a standard control among women who were treated with chest radiation for a childhood cancer. This is a 26-institution cohort study investigating late outcomes in long-term survivors of childhood cancer who were diagnosed between 1970 and 1999.

Do Cardiovascular Risk Factors Modify the Cardiotoxicity Of Lymphoma Treatments?

Oeffinger KC, Co-Investigator; Salz, PI

This proposal investigates whether risk factors for heart disease that exist before a lymphoma diagnosis interact with lymphoma therapies (chemotherapy and radiation) to heighten the risk of developing heart disease well after cancer treatment is complete.

EMPOWER Study: Promoting Breast Cancer Screening in Women Who Survived Childhood Cancer

Oeffinger KC, PI

The aim of this multicenter study is to determine the efficacy of a stepwise two-component intervention on mammogram screening rates compared to a standard control among women who were treated with chest radiation for a childhood cancer

Exercise and Quality diet after Leukemia: the EQUAL Study

Oeffinger KC, Co-Investigator; Tonorezos ES, PI

The aims of this study are to Determine the effectiveness of a 24-month remotely-delivered diet and physical activity intervention, compared to self-directed weight loss, among a nationwide sample of obese adult survivors of childhood acute lymphoblastic leukemia (ALL) and to calculate the effect of the diet and physical activity intervention, compared to self-directed weight loss, on three key metabolic biomarkers: fasting insulin, leptin: adiponectin ratio, and small, dense LDL.

Extended Cancer Education for Longer-Term Survivors (EXCEL) in Primary Care

Oeffinger KC, Scientific Advisory Committee; Hudson S. Pl

This study aims to test the effectiveness of an intervention on the use of preventive health services and tracking of cancer recurrence and late effects with patient coping as a secondary outcome.

Genetic Susceptibility and Biomarkers of Platinum-**Related Toxicities**

Oeffinger KC, Consultant; Feldman D, Mentor for Site PI; Travis LB. PI

This multi-institutional study aims to establish a large clinically well-characterized cohort of platinum-treated testicular cancer survivors available for lifelong follow up to enable study of the genetic underpinnings of long-term toxicities; to identify SNPs associated with long-term cisplatin ototoxicity and neurotoxicity; and to determine and validate the extent to which candidate SNPs identified through studies of cellular susceptibility to cisplatin are associated with clinical long-term ototoxicity and neurotoxicity.

PCMH Implementation Strategies: Implications for Cancer Survivor Care

Oeffinger KC, Scientific Advisory Committee; Crabtree BF. PI

The aims are to identify and describe how the patientcentered medical home is successfully implemented and the challenging attributes needed for cancer survivor care.

Simplifying Care for the Complex Cancer Survivor

Oeffinger KC, Co-Investigator; Baxi, Co-PI; Salz, Co-PI

We designed an electronic system to collect information about survivors, guide discussions about care, and produce a personalized survivorship care plan to share with the survivor and their providers. Our proposal studies the usability and feasibility of this system from the perspective of experts and key stakeholders.

Survivorship: Mentoring and Bridging Primary Care and Oncology

Oeffinger KC, PI

This study is focused on improving outcomes of cancer survivors. The goals are to systematically mentor early career investigators studying survivorship outcomes and conduct two research studies aimed at promoting breast cancer surveillance and reducing health disparities among female Hodgkin lymphoma survivors treated for a pediatric or young adult cancer with chest radiation; and bridging primary care and oncology and promoting the shared care model.

Tissue Substrate and Functional Characterization of Pre-Clinical Myocardial Injury among Survivors of **Hodgkin Lymphoma**

Oeffinger KC, Co-Investigator, Mentor; Matasar M, Co-PI; Weinsaft J, Co-PI

The aims of this study are to determine the prevalence of regional and global myocardial imaging using novel CMR imaging and state of the art echocardiography (speckle strain, 3-D echo) in long-term survivors of Hodgkin lymphoma treated with mediastinal radiation.

Palliative Medicine

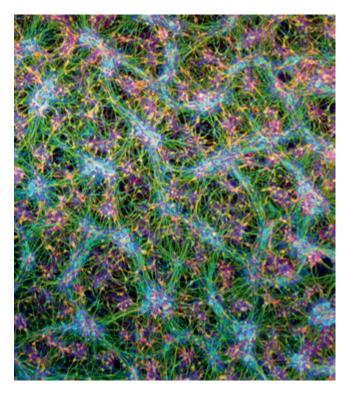
Decision Architecture of Patients with Advanced Cancer Stabler S, PI; Collaboration with Columbia University (Higgins T & Fridman, I)

The purpose of this study is to use insights from socialpsychological theory to improve our understanding of how to communicate anxiety-provoking information to patients in a way that allows them to process the information more thoroughly. Patients being followed in MSK Palliative Medicine Clinic are presented with hypothetical scenarios about hospice that are focused either on achieving gains or avoiding losses. Survey results will allow us to determine if using regulatory nonfit framing can reduce negative reactions by disrupting the person's usual way of seeing the situation.

Identifying Family Members in Need of Support During Cancer Care and Bereavement

Stabler S, Co-Investigator; Lichtenthal W, PI

The purpose of this study is to develop a screening tool to help identify family members who may need professional emotional support. Cognitive interviewing, a method considered standard in the development of patient reported outcomes measures, is utilized to obtain feedback from spouses or partners, adult children, and parents of cancer patients before and after the patient's death. Interviews are transcribed and analyzed using thematic analysis. This information will allow us to increase the sensitivity, clarity, and utility of this screening tool.



Human ESC Neurons

Employee Health and Wellness

Anabella Lucca Bianchi

Delcastillo M, Lucca A, Plodkowski A, Huang YT, Kaplan J, Gihuley K, Babadyne NE, Seo SK, Kamboj M. Atypical presentation of Legionella pneumonia among patients with underlying cancer: A fifteen-year review. *J Infect.* 2016 Jan;72(1):45-51.

Hospital Medicine

Helen Chung

Chung HH and Tsyvkin E [in press]. Tumor Lysis Syndrome. *Hosp Med Clin.*

Anjali Varma Desai

Desai AV, El-Bakkar H, Abdul-Hay M. Novel agents in the treatment of chronic lymphocytic leukemia: A Review About the Future. *Clinical Lymphoma, Myeloma & Leukemia* 2015 June;15(6):314-22.

Lisa Diamond

Costas-Muniz R, Leng J, Diamond L, Aragones A, Ramirez J, Gany F. Psychosocial correlates of appointment keeping in immigrant cancer patients. *Journal of Psychosocial Oncology*, 2015;33(2):107-23. Epub 2015/01/13. doi: 10.1080/07347332.2014.992084.

Schwei RJ, Del Pozo S, Agger-Gupta N, Alvarado-Little W, Bagchi A, Chen AH, Diamond L, Gany F, Wong D, Jacobs EA. Changes in research on language barriers in health care since 2003: A cross-sectional review study. *International Journal of Nursing Studies*.

Patel DN, Wakeam E, Genoff M, Mujawar I, Ashley SW, Diamond LC. Preoperative consent for patients with limited english proficiency. *J Surg Res.* 2016 Feb;200(2):514-22. doi: 10.1016/j.jss.2015.09.033. Epub 2015 Oct 3.

Silva MD, Genoff M, Zaballa A, Jewell S, Stabler S, Gany FM, Diamond LC. Interpreting at the end of life: a systematic review of the impact of interpreters on the delivery of palliative care services to cancer patients with limited english proficiency. *Journal of Pain and Symptom Management* 2015, doi: 10.1016/j.jpainsymman.2015.10.011.

Jennifer Heinen

Amengual JE, Johannet P, Lombardo M, Zullo K, Hoehn D, Bhagat G, Scotto L, Jirau-Serrano X, Radeski D, Heinen J, Jiang H, Cremers S, Zhang Y, Jones S, O'Connor OA. "Dual targeting of protein degradation pathways with the selective HDAC6 inhibitor ACY-1215 and bortezomib Is synergistic in lymphoma." *Clin Cancer Res.* Vol. 21, No. 20, pp. 4663-75, October 15, 2015.

Douglas Koo

Koo DJ, Goring, TN, Pinard KA, Egan BC [in press]. Malignant bowel obstruction in advanced cancer. *Hosp Med Clin.*

Koo DJ, Goring TN, Saltz LB, Kerpelev M, Kumar CB, Salvit C, Chung HH, Abou-Alfa GK, Martin SC, Egan BC. Hospitalists on an inpatient tertiary care oncology teaching service. *J Oncol Pract.* 2015 Mar;11(2):e114-9. dos: 10.1200/JOP.2014.000661.

Koo DJ, Tonorezos ES, Kumar CB, Goring TN, Salvit C, Egan BC. Hospitalists caring for patients with advanced cancer: An experience-based guide. *J Hosp Med.* 2015 Nov 20. doi: 10.1002/jhm.2511.

Chhavi Kumar

Lipitz-Snyderman A, Atoria C, Kumar C, Gendron M, Killen A. Does laboratory testing decrease during scheduled downtime of an electronic order entry system? *American Journal of Medical Quality* 2015 Jan; 30 (1):94-5.

Nancy Tray

Klimek V and Tray N [in press]. Therapy-related myeloid neoplasms: What's in a name? *Current Opinion in Hematology.*

Integrative Medicine

Jun Mao

Im EO, Kim S, Tsai H, Nishigaki M, Yeo S, Chee W, Chee E, Mao JJ. Practical issues in multi-lingual research: A discussion paper. *International Journal of Nursing Studies* 2015. doi: 10.1016/j.ijnurstu.2015.02.008.

Mao JJ, Xie SX, Zee J, Soeller I, Li SQ, Rockwell K, Amsterdam J. Rhodiola Rosea vs. Sertraline for major depressive disorder: A randomized placebo-controlled trial. *Phytomedicine* 2015; 22(3):394-9.

Brier MJ, Chambless D, Lee L, Mao JJ. Development and validation of the penn arthralgia aging scale among breast cancer survivors. Cancer 2015. doi: 10.1002/cncr.29407.

Bauml J, Chokshi S, Schapira MM, Im EO, Li SQ, Langer C, Ibrahim S, Mao JJ. Do attitudes and beliefs regarding complementary and alternative medicine impact its use among patients with cancer? A cross-sectional survey. Cancer 2015;121:2431-2438.

Garland SN, Stainken C, Ahluwalia K, Vapiwala, Mao JJ. Cancer-related search for meaning increases willingness to participate in mindfulness-based stress reduction. *Integrative* Cancer Therapies 2015;14(3):231-9.

Goldstein J, Ibrahim S, Frankel E, Mao JJ. Race, Pain and Beliefs associated with interest in complementary and alternative medicine (CAM) among inner city veterans. Pain Medicine 2015;16:1467-1474.

Amsterdam JD, Lorenzo-Luaces L, Soeller I, Li LQ, Mao JJ, DeRubeis R: Safety and effectiveness of continuation antidepressant versus mood stabilizer monotherapy for relapse-prevention of bipolar II depression: A Randomized, double-blind, parallel-group, prospective study. Journal of Affective Disorders 2015;185:31-37.

Amsterdam JD, Lorenzo-Luaces L, Soeller I, Li SQ, Mao JJ, Derubeis RJ. Short-term venlafaxine v. lithium monotherapy for bipolar type II major depressive episodes: Effectiveness and mood conversion rate. British Journal of Psychiatry 2015.

Bauml J, Chen L, Chen J, Boyer J, Kalos M, Li SQ, DeMichele A, Mao JJ. Arthralgia among women taking aromatase inhibitors: Is there a shared inflammatory mechanism with co-morbid fatigue and insomnia? Breast Cancer Research 2015;17:89.

Im E, Kim S, Tsai H, Nishigaki M, Yeo S, Chee W, Chee, E, Mao JJ. Practical issues in multi-lingual research. International Journal of Nursing Studies 2016;54:141-149.

Mao JJ, Bowman MA, Xie SX, Bruner D, DeMichele A, Farrar JT. Electro-acupuncture vs. gabapentin for hot flashes among breast cancer survivors: A randomized placebo-controlled trial. Journal of Clinical Oncology 2015.

Dean LT, DeMichele A, Lee SQ, Colameco C, Stephens A, LeBlanc M, Coursey M, Mao JJ. Black cancer survivors experience greater upper extremity disability. Breast Cancer Research and Treatment 2015.

Brier MJ, Chambless D, Gross R, Su HI, DeMichele A, Mao JJ. Association between self-report adherence measures and oestrogen suppression among breast cancer survivors on aromatase inhibitors. European Journal of Cancer 2015.

Nyarko E, Metz JM, Nguyen GT, Hampshire M, Jacob LA, Mao JJ. Cancer Survivors' perspectives on delivery of survivorship care by primary care physicians: An internet-based survey. BMC Family Practice 2015.

George M., Abboud, S., Pantalon, MV, Sommers, MS, Mao, JJ, Rand C. Changes in clinical conversations when providers are informed of asthma patients' beliefs about medication use and integrative medical therapies. Heart & Lung: The Journal of Acute and Critical Care 2015.

Bauml J, Haas A, Simone C, Li SQ, Cohen RB, Schmitz K, Langer CJ, Mao JJ. Acupuncture for dyspnea in lung cancer: Results of a feasibility trial. Integrative Cancer Therapies 2015.

General Internal Medicine

Deborah Korenstein

Ryskina KL, Smith CD, Weissman A, Post J, Bollmann K, Korenstein D. US internal medicine residents' knowledge and practice of high value care: A national survey. Acad Med 2015

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