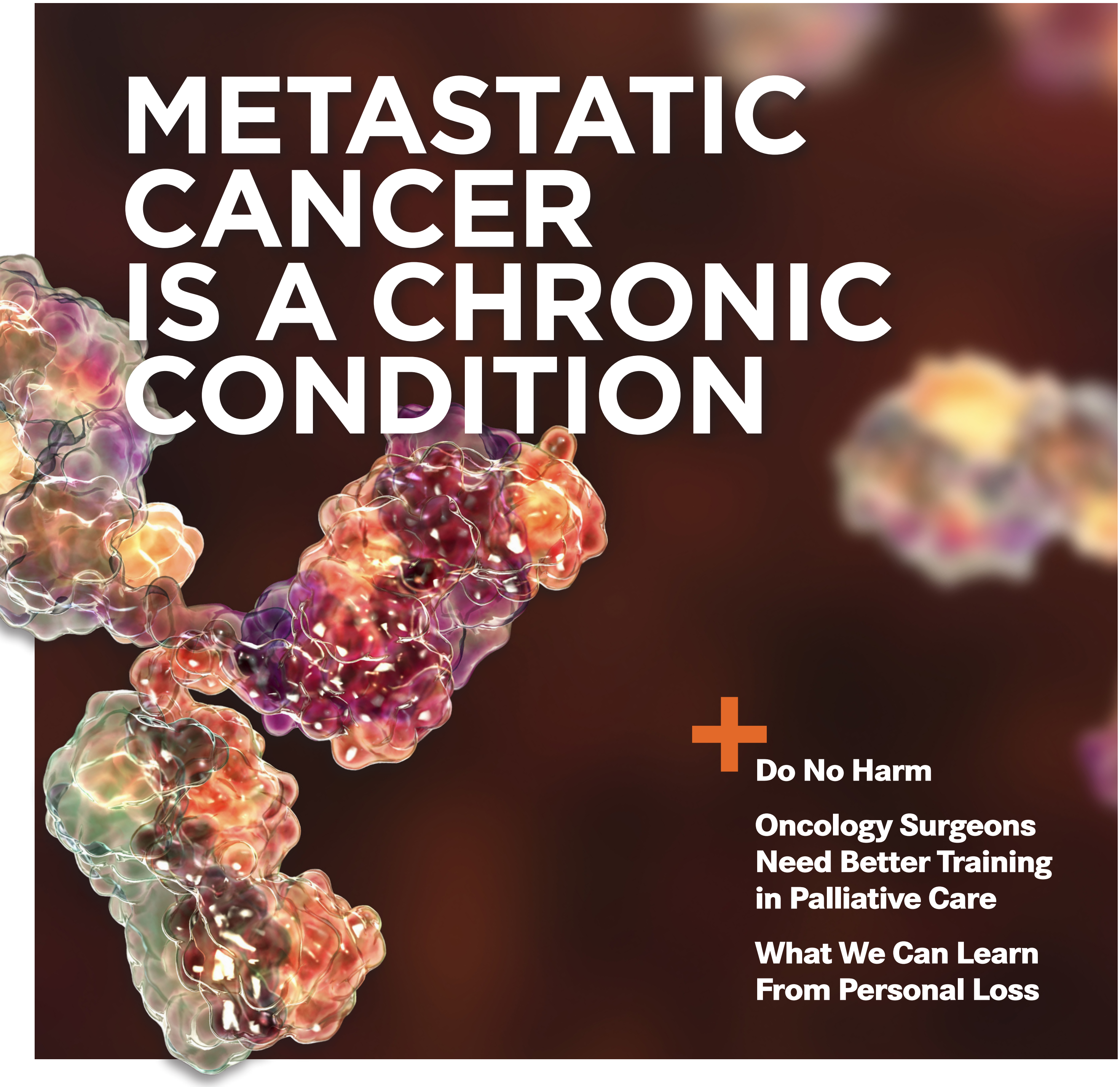
OncLive.com
Volume 11 • Issue 1, 3.19

ONCOLOGY Fellows

A specialty journal of
OncologyLive

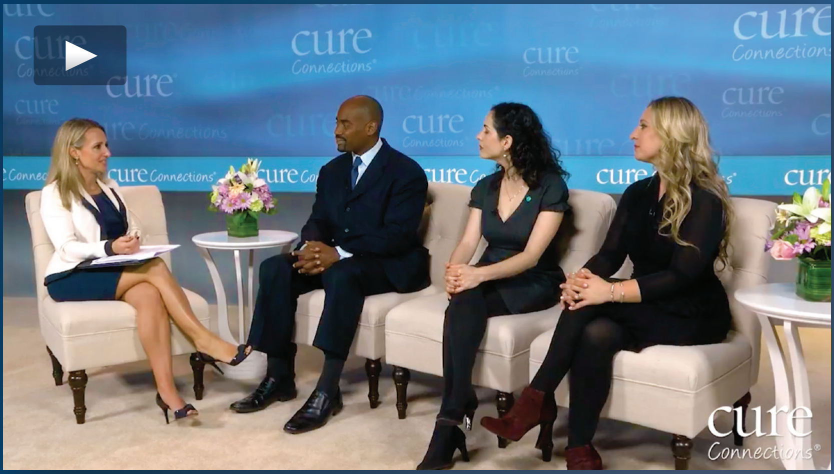


METASTATIC CANCER IS A CHRONIC CONDITION

+ **Do No Harm**

Oncology Surgeons Need Better Training in Palliative Care

What We Can Learn From Personal Loss



Intellisphere®
Oncology Specialty Group

Editorial & Production

Associate Editorial Director, Print
Anita T. Shaffer
ashaffer@onclive.com

Associate Editorial Director, Digital
Jason M. Broderick

Senior Editors
Tony Hagen
Jason Harris
Kristi Rosa

Associate Editor
Brittany Lovely

Managing Editor OncLive.com
Gina Columbus

Assistant Web Editor
Brandon Scalea

Copy Chief
Jennifer Potash

Copy Editors
Maggie Shaw
Rachelle Laliberte
Paul Silverman

Creative Director, Publishing
Ray Pelesko

Senior Art Director
Melissa Feinen

Designer
Brianna Gibb

Sales & Marketing

Vice President
Robert Goldsmith

Vice President & Executive Producer, MJH Productions
David Lepping

Senior Account Director
Albert Tierney

National Accounts Manager
Phil Conover
Morgan Michon

National Accounts Associates
Patrick Kugel

Sales & Marketing Coordinator
Julisa Sosa

Operations & Finance

Circulation Director
Jon Severn

Vice President, Finance
Leah Babitz, CPA

Controller
Katherine Wyckoff

Corporate

Chairman and CEO
Mike Hennessy, Sr

Vice Chairman
Jack Lepping

President
Michael J. Hennessy, Jr

Chief Operating Officer
George Glatcz

Chief Financial Officer
Neil Glasser, CPA/CFE

Executive Creative Director
Jeff Brown

Executive Vice President, Oncology Professional Relations
Donna Short, MA

Senior Vice President, Operations
Tom Tolvé

Senior Vice President, Content
Silas Inman

Senior Vice President, Information Technology Officer
John Moricone

Vice President, Patient Advocacy Development
Sandra Vassos, MPA

Vice President, Corporate Development and Integration
Dave Heckard

Vice President, Digital Media
Jung Kim

Vice President, Human Resources & Administration
Shari Lundenberg

Scan with a QR code reader to visit OncLive.com, the online home of *Oncology Fellows*.

MJH Associates, Inc.

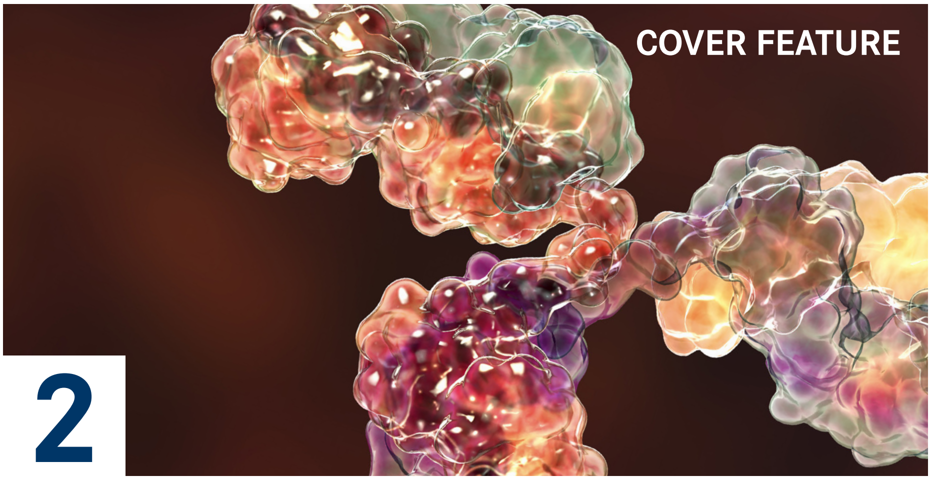
2 Clarke Drive
Suite 100
Cranbury, NJ 08512
(609) 716-7777

ONCOLOGY Fellows

TABLE OF CONTENTS

Volume 11 • Issue 1, 3.19

COVER FEATURE



©RETROSTAR/ ADOBE STOCK

Voices in the Field

Departments

Behind the Statistics

Mobile Medicine

OncLive® *20th Anniversary*

Meetings Calendar

OncLive Fellows Forum

No Images? Click here

OncLive® National Fellows Forum
TALKING AMONG OURSELVES

Dear Doctor:
Welcome to the first *Oncology Fellows* newsletter, a quarterly publication that highlights the first-hand experiences of oncology fellows as they weave their way through their fellowship programs. *Oncology Fellows* is unique because it addresses the challenges and milestones—both personal and professional—that fellows confront during their programs.

Highlighted below are recent stories from *Oncology Fellows* that addresses the problem of bias, medical ethics, and complex surgeries.

Do you have a story or experience that could benefit your colleagues? Contact **Anthony Berberabe** (aberberabe@onclive.com) for author guidelines. If your story is published, we provide a $500.00 honorarium.

Is Anchoring Bias a Real Phenomenon?

Two case reports illustrate the challenges of anchoring bias, which occurs when a physician locks onto a clinical diagnosis too early, often by basing those decisions on information provided by another physician.

Weighing Medical Ethics in Pediatric Oncology

When "doing no harm" means not trying an experimental drug therapy, which may prolong a patient's suffering, despite the patient and family's wishes. It is a thorny issue made especially complicated when treating pediatric patients.

Surgery in Oncology Is Not Always a Simple Decision

Treating patients with malignancies of different etiologies makes this fellow's career choice interesting. But a one-size-fits-all approach rarely works.

Featured videos on OncLive TV

Dr. West on Quality of Life Challenges in Gynecologic Cancer

Grant Opportunity

American Cancer Society Supports Early Career Clinicians' Move into Clinical Science

The American Cancer Society has launched a new grant program to support early career clinicians aiming to become clinician scientists.

Watch your inbox for our *Oncology Fellows* e-newsletter— written for fellows, by fellows. Send an email request to Jason Harris (**jharris@onclive.com**) to receive your copy.

METASTATIC CANCER IS A CHRONIC CONDITION

Evan Wu, MD
Medical Oncology Fellow
Johns Hopkins School of Medicine
Baltimore, MD

IMMUNO-ONCOLOGY, THE REDIRECTION of one's immune system to fight disease, is the single most important recent discovery, both in oncology and all of medicine. Immuno-oncology is the redirection of one's own immune system to fight off cancer. It has produced remarkable clinical outcomes in patients who were previously given a death sentence.

Although only in early stages of development, there are a host of adverse events and failures associated with immuno-oncology. However, investigators are expanding on the work done by this year's winners of the Nobel Prize in Physiology or Medicine, James P. Allison, PhD, and Tasuku Honjo, MD, PhD, at an extraordinarily rapid pace. We are discovering new targets for immunotherapy and learning how to use these agents in combination with other anti-cancer therapies.

As a medical oncologist in training, the most frequent question I get asked by peers outside of the medical field is when we will "cure" cancer. I am always astounded and disturbed by the simplicity of the question. Some cancers, such as testicular cancer and certain hematologic malignancies, are effectively curable already. But the biology of cancer development is so complex and individualized to each patient's tumor that it is incredibly difficult to categorize even tumors of the same organ and histological subtype.


Evan Wu, MD

However, an incensed rant is not what the average layperson is looking to hear from an oncologist, so this is my not-so-simple answer to the "curing cancer" question.

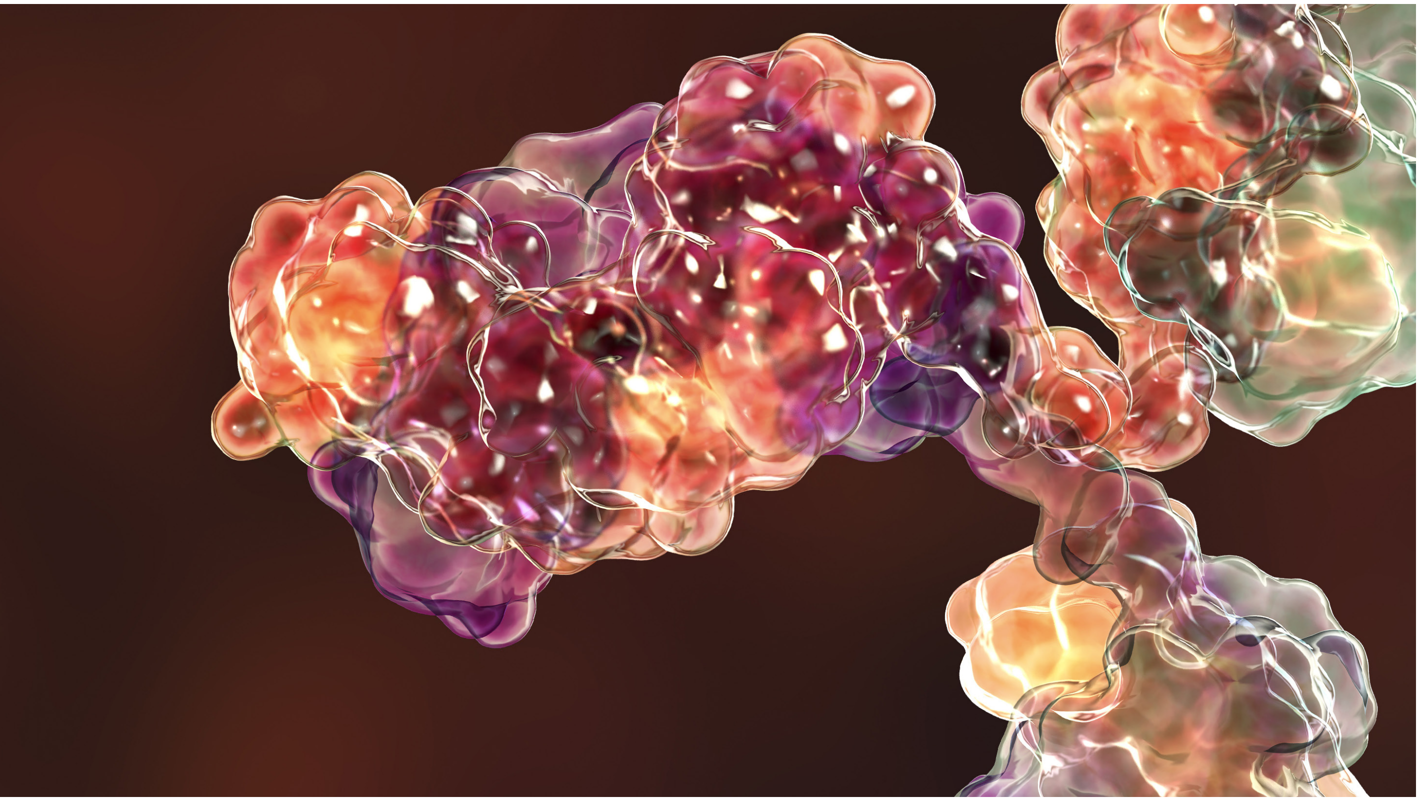
First, most early stage cancers are curable simply by removing them. One may argue that there will be more early stage curable cancers and less advanced cancers as screening mechanisms improve. But it is nearly impossible to imagine a situation where we could successfully prevent all advanced cancers from ever developing simply through early detection.

Colon cancer screening will still require regular colonoscopies, although there is always the possibility of novel biomarkers. Breast cancer will still depend on mammography and/or MRI. Hematologic malignancies will be caught on routine blood tests, and screening CT scans will never be a financially realistic option to catch all lung and upper gastrointestinal cancers.

Therefore, the primary focus of the question of curing cancer centers on advancements in the treatment of metastatic cancer. During training, oncologists are taught to call all metastatic cancers incurable and to emphasize the point that all treatment for metastatic disease is palliative. Recent developments in targeted therapies and immunotherapy have challenged this treatment paradigm.

In the very best, albeit exceedingly rare, cases, tumors dissolve away with immunotherapy, leaving no radiographic or clinical evidence of metastatic cancer. More often, the targeted agents and immunotherapy treatments lead to a prolonged state of stable disease. How

For more practical articles from *Oncology Fellows*, go to **onclive.com/link/2375.**



prolonged is to be determined, but success stories in breast cancer frequently detail women with metastatic disease on targeted therapy living otherwise healthy and normal lives for 10 years or more. Many patients with metastatic melanoma and lung cancer previously treated with immunotherapy are also nearing or surpassing a decade of survival living with metastatic cancer. Although oncologists will never call these patients "cured," they certainly do not fit the traditional mold or trajectory of patients with metastatic cancer.

As more and more of these patients accumulate through the improved therapies, this country will continue to collect a substantial population of patients with "chronic cancer." These patients will represent an overwhelming majority of our cancer clinic population and represent a new normal for the meaning of and our treatment approach to metastatic cancer. Patients will always be horrified and distraught from the diagnosis of metastatic cancer, but rather than immediately planning their will and traveling the world before they die, they can be assured that the new normal could easily mean 10-plus years of quality living with a chronic disease.

> **"We will not figure out every mechanism of resistance and every mutation that causes every type of cancer. And yet, advancements in targeted therapy and immunotherapy have led to a rapidly increasing number of patients with metastatic cancer becoming patients with chronic cancer."**
>
> — EVAN WU, MD

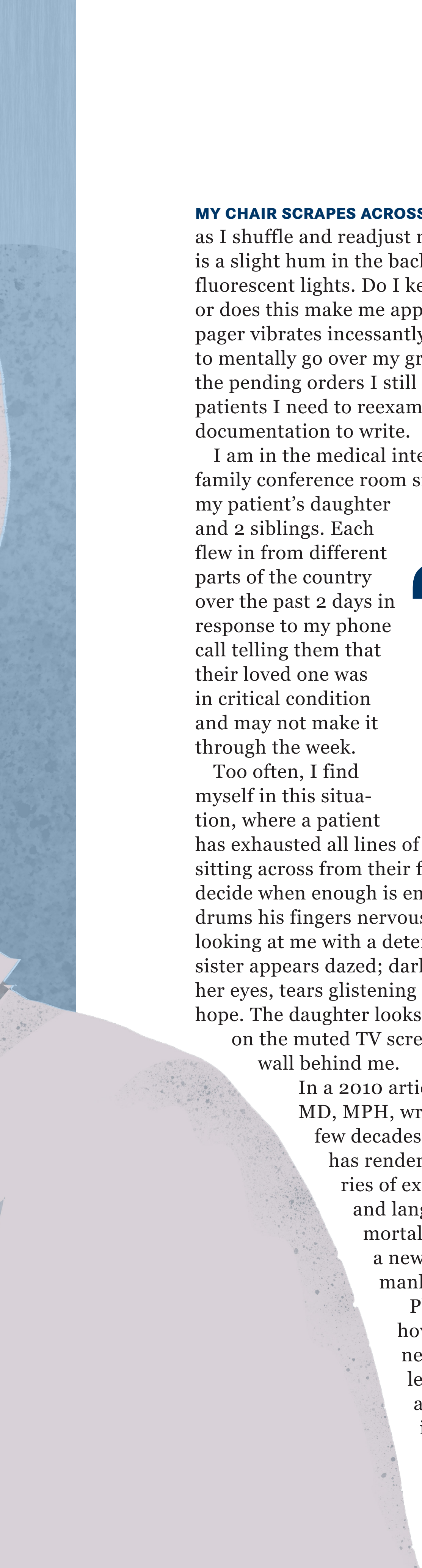
An appropriate analogy is to compare cancer to the evolution of HIV. In the early stages of HIV, the diagnosis was a death sentence. As treatments dramatically improved, however, and we learned about the complex biology of HIV, we have still been unsuccessful in curing HIV. But we have managed to turn HIV into a chronic disease. The virus remains dormant in one's cells just as cancer remains controlled in one's organs or lymph nodes. Stopping antiretroviral therapy may result in disease relapse much as how stopping targeted therapies will result in disease progression.

The often-asked simple question of "curing" cancer has 1 simple answer: NO! We will not cure cancer; we will never cure cancer. We will not figure out every mechanism of resistance and every mutation that causes every type of cancer. And yet, advancements in targeted therapy and immunotherapy have led to a rapidly increasing number of patients with metastatic cancer becoming patients with chronic cancer. We will continue to see more and more metastatic cancers become chronic conditions, and the oncology world will be full of patients living with the chronic disease known as metastatic terminal cancer. ■

DO NO HARM

Inas Abuali, MD
First-year Hematology-Oncology Fellow
University of Cincinnati College of Medicine
Cincinnati, OH

For more practical articles from *Oncology Fellows*, go to **onclive.com/link/2375.**



MY CHAIR SCRAPES ACROSS the frayed carpet as I shuffle and readjust my posture. There is a slight hum in the background from the fluorescent lights. Do I keep my back straight or does this make me appear too tense? My pager vibrates incessantly, and I try not to mentally go over my growing to-do list, the pending orders I still need to place, the patients I need to reexamine, the endless documentation to write.

I am in the medical intensive care unit's family conference room sitting across from my patient's daughter and 2 siblings. Each flew in from different parts of the country over the past 2 days in response to my phone call telling them that their loved one was in critical condition and may not make it through the week.

> **“My goal is to always remind the family that, ultimately, the burden of decision is not on them. Rather, they merely serve as the voice of their loved ones.”**
>
> —INAS ABUALI, MD

Too often, I find myself in this situation, where a patient has exhausted all lines of therapy and I am sitting across from their family trying to decide when enough is enough. The brother drums his fingers nervously across the table, looking at me with a determined gaze. The sister appears dazed; dark circles underneath her eyes, tears glistening with a glimmer of hope. The daughter looks resigned, eyes fixed on the muted TV screen hanging on the wall behind me.

In a 2010 article, Atul Gawande, MD, MPH, wrote, “In the past few decades, medical science has rendered obsolete centuries of experience, tradition, and language about our mortality, and created a new difficulty for mankind: how to die.”[1]

Physicians are taught how to deliver bad news. We initially learn about it in the abstract while sitting in a lecture hall in medical school. Then we observe residents and attendings do it. Then one day, you are the one in the white coat at the other end of the table, leading the family meeting, the term for the conversation with family members when we are expecting the worst. The “goals of care discussion” ultimately falls on you as an oncologist as you try to honor the oath to “do no harm” when salvage therapies are available and families want to exhaust every possibility.

A mentor once told me, “Never walk into a family meeting with the intent of pushing your own agenda.” I remind myself that what is a routine day for me is likely the worst day of their lives.

No matter how tired you are or how busy, you need to be present; the next 30 to 60 minutes demand your undivided attention. Consider your body language, and weigh your words carefully, knowing that this encounter will stay with them for a very long time. This meeting could be a source of solace or grief for years.

Before morning rounds, my resident said to me, “He is mechanically ventilated, on 3 vasopressors, with multiorgan failure. We doubt that there will be any meaningful neurological recovery in the setting of a catastrophic CVA [cerebrovascular accident].”

Those words mean very little to anyone outside the medical field. Instead I say to the family, “The infection has spread throughout his body. The machine is breathing for him, and he needs a lot of medications to help his heart pump blood to the rest of his body. He had a big stroke that has likely affected his ability to wake up or breathe on his own.”

Inas Abuali, MD

They stare at me as I do my best to explain in simple terms how his metastatic cancer has left him in an immunocompromised state that is worsened by neutropenic adverse effects from his chemotherapy. I tell them that there has been one complication after another over the past few days.

"Do you think he can recover and get back to where he used to be?" his daughter asks. "Two weeks ago, he was playing with the grandchildren in the backyard."

I pause. Research has shown that clinicians' abilities to prognosticate outcome are often imprecise. We do what we can in attempting to map out a trajectory according to each individual's progress, but there is always a chance for error.

I confess that, on occasion, I am haunted by decisions I've made. I wonder if, in the past, I've given up too soon.

"I don't think he can," I reply. "I don't think that he can come off the breathing machine. And I am worried that he has too much brain damage."

In 1 published study, more than 50% of caregivers reported regret about end-of-life care for a patient with cancer. Results from that study showed that better patient quality of death reduced the risk for bereavement regret.[2] It falls on us to tell patients and their loved ones when our therapies are doing more harm than good.

My goal is to always remind the family that, ultimately, the burden of decision is not on them. Rather, they merely serve as the voice of their loved ones. "What do you think he would have said if he was sitting here with us?" I ask during a lull in our conversation.

"He was full of life and very proud of his independence. He wouldn't have wanted this," his brother says, his shoulders slumped. The family had talked about what my patient would want if the disease progressed and recovery became unlikely. He wanted to fight for as long as it made sense. It no longer did.

His sister and daughter nod in agreement, and we spend the next few minutes discussing further steps in terms of transitioning to comfort measures.

"Thank you for everything," his daughter says quietly.

It is hard as a physician not to feel the sting of failure when you lose a patient. Yet, it serves as a reminder that at the end of the day, we uphold our oath by knowing when enough is enough, by ensuring that there is dignity, not only during life, but also in death. ■

REFERENCES

1. Gawande A. Letting go: what should medicine do when it can't save your life? *The New Yorker*. newyorker.com/magazine/2010/08/02/letting-go-2. Accessed December 24, 2018.
2. Garrido MM, Prigerson HG. The end-of-life experience: Modifiable predictors of caregivers' bereavement adjustment. *Cancer*. 2014;120(6):918-925. doi: 10.1002/cncr.28495.

ASCO SEEKS APPLICANTS FOR CANCERLINQ DISCOVERY GRANTS

THE AMERICAN SOCIETY OF CLINICAL ONCOLOGY (ASCO) is seeking research grant applications for projects using data from the CancerLinQ Discovery database. CancerLinQ Discovery provides curated sets of anonymous, real-world patient data to help investigators, government agencies, and others in the oncology community develop practical knowledge that will improve cancer care.

The $32,500 grants will provide early and mid-career clinical oncology and health service investigators with real-world evidence that can inform their research.

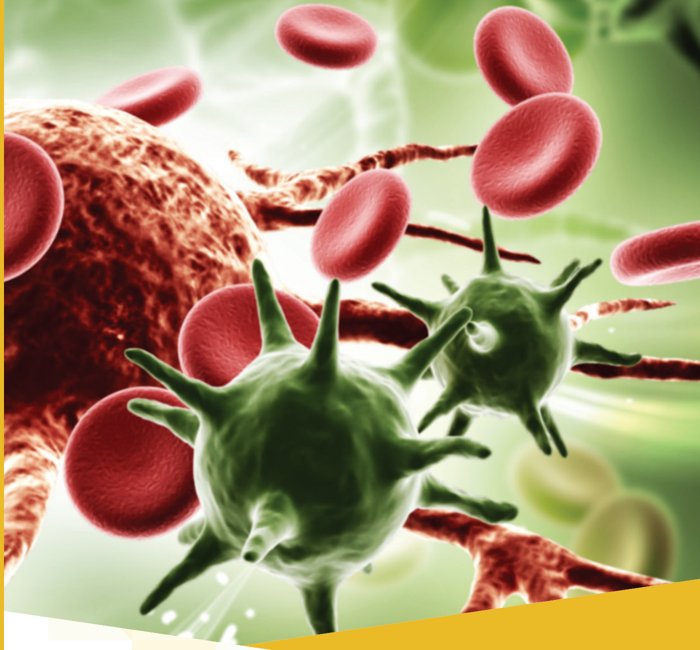
Active ASCO members are invited to submit research proposals consistent with ASCO's mission to conquer cancer through research, education, and promotion of the highest quality patient care that can be addressed using CancerLinQ Discovery data.

Grant recipients will be invited to ASCO headquarters for an initial training session, as well as ongoing mentoring on the use of the database. Recipients will be expected to publish their work in top-tier medical journals.

ELIGIBILITY CRITERIA

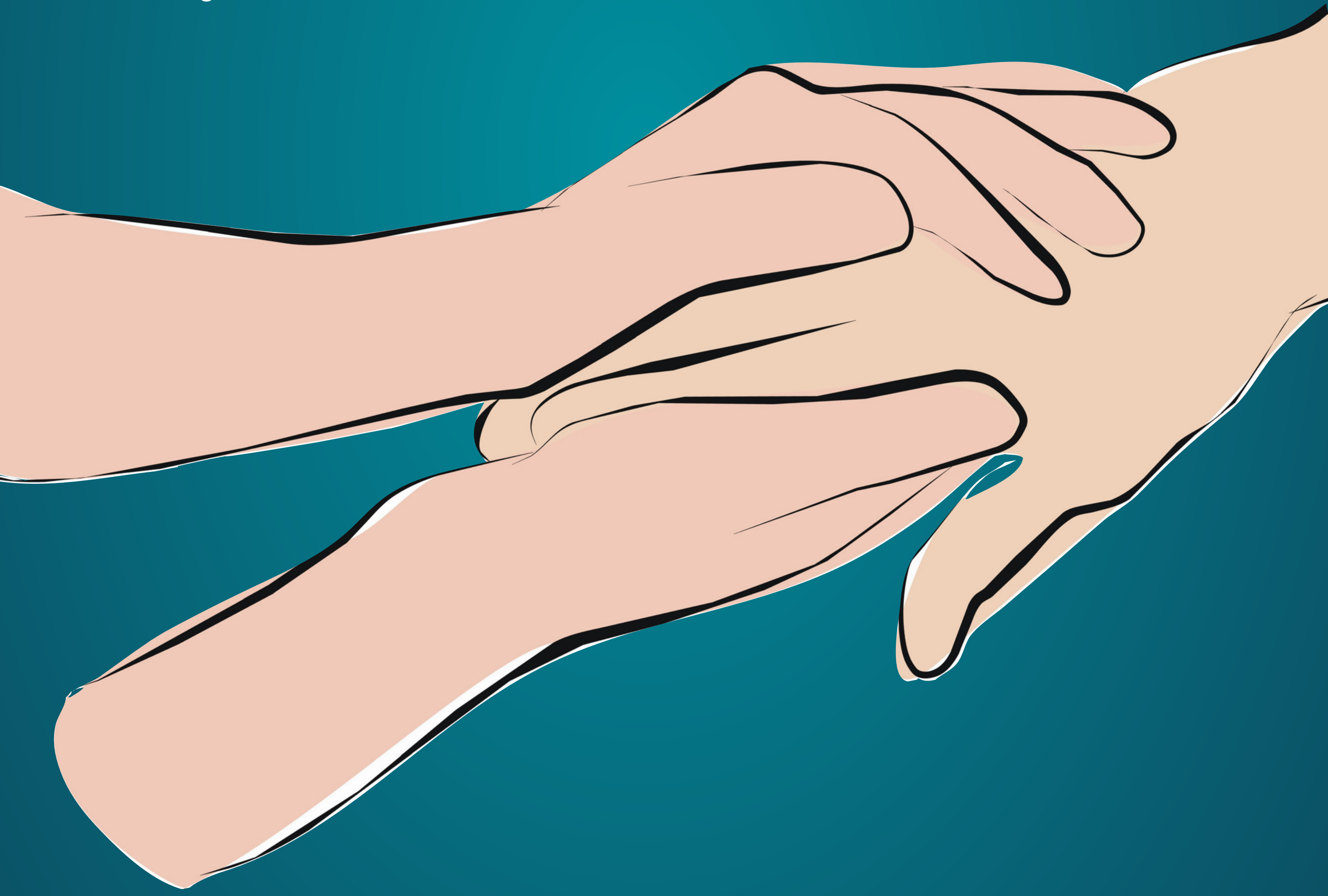
- Hold a doctoral degree
- Have completed final subspecialty training after 2009 for a PhD or PharmD and 2014 for an MD or DO
- Be planning an investigative career in clinical oncology or oncology-focused health services research
- Have a mentor in the proposed research field
- Not hold another active grant from Conquer Cancer, The ASCO Foundation
- Be based in a US practice or institution and a US citizen or permanent resident

Applications are due April 30, 2019.
Learn more about this opportunity at: https://bit.ly/2IoXORZ.



ONCOLOGY SURGEONS NEED **BETTER TRAINING** IN PALLIATIVE CARE

Sarah Walcott-Sapp, MD
Breast Surgical Oncology Fellow
Cedars-Sinai Medical Center
Los Angeles, CA



For more practical articles from *Oncology Fellows*, go to **onclive.com/link/2375.**

ONCOLOGISTS HAVE TRADITIONALLY BEEN the major specialists delivering supportive care to patients with cancer. However, surgeons may be the first physicians to diagnose metastatic disease or cancer recurrence and are frequently consulted to assist in the care of terminally ill patients with cancer. In addition to providing timely referrals to palliative care specialists, having difficult end-of-life discussions with patients and families, and managing pain in the setting of advanced malignancy, there is still a role for surgery in certain palliative situations.

It is important for oncology surgeon trainees to learn to recognize when a palliative surgical procedure for an advanced malignancy might be appropriate, be familiar with the conduct of these operations, and understand the nuances of postoperative care and management of complications in this unique patient population. As stated by Hanna et al, "Palliative care is not so much a new specialty as a rediscovery of a tradition of surgery in which palliative surgical interventions that do not cure are once again acknowledged to be of tremendous benefit for those with disease."[1]

Research, including randomized controlled trials and meta-analyses, has demonstrated that the addition of palliative care to oncology care improves symptom control and patient quality of life (QoL). There are even data which suggest that receipt of palliative care can decrease the rate of suicide in patients with high-risk lung cancer, which may be applicable to patients with gastric cancer, who are also at increased risk for suicide.[2] QoL benefits have been shown to increase with earlier referral to palliative care, emphasizing the importance of training all physicians in the basic tenets and potential benefits of palliative care.[3]

The American College of Surgeons recognizes the importance of palliative care, and the American Board of Surgery (ABS) mandates that "Certified general surgeons additionally must possess knowledge of the unique clinical needs of the following specific patient groups: Terminally ill patients, to include palliative care and pain management . . . and counseling and support for end-of-life decisions and care."[4-6] Nonetheless, many surgeons continue to lack formal training in palliative surgical care.

> **"[Palliative care] training has been shown to combat burnout in medical oncology fellows and has the potential to help mitigate symptoms of burnout in surgical trainees and attendings."**
>
> — SARAH WILCOTT-SAPP, MD

A 2005 survey reported that 84% of surgeons did not receive any palliative care training in residency and 44% did not receive training during continuing medical education (CME).[7] More recently, a 2018 study reported that 20% of surgeons received no palliative care education during residency, fellowship, or as part of CME while in practice despite the incorporation of palliative care into the Accreditation Council for Graduate Medical Education's 6 competency domains.[4,8]

In complicated patients with advanced malignancies, the potential palliative benefits of invasive procedures and operations must be balanced with the risks associated with surgery, particularly because complications could have profound effects on a patient's QoL in a limited timeframe. Investigators conducting a recent study compared palliative care training between surgeons and medical physicians and analyzed the effects of this training on clinical decision making. They found that surgeons received significantly fewer hours of palliative care training than medical oncologists or pulmonary critical care physicians and that physicians without palliative care training were more likely to recommend major operative intervention.[8]

A meta-analysis showed that surgeons are generally aware of the potential benefits of palliative care but lack knowledge about palliative care and are uncomfortable providing such care to their patients.[9] Surgeons, like oncologists, have a responsibility to provide realistic data regarding anticipated treatment outcomes and long-term prognoses while preserving hope, but they often lack the training necessary to accomplish this goal.


Sarah Wilcott-Sapp, MD

Moreover, the benefits of palliative care training go beyond patients and their families. Such training has been shown to combat burnout in medical oncology fellows and has the potential to help mitigate symptoms of burnout in surgical trainees and attendings.[10]

Efforts are increasing to include palliative care training during medical school and surgical residency, but it is even more important to include this training in fellowships in which physicians frequently care for patients with terminal diagnoses.[1] Ninety-eight percent of respondents in 1 survey of surgical oncology and hepatobiliary fellows generally or completely agreed that learning to care for dying patients is important.[11]

A recent study of surgical oncology and hepatopancreaticobiliary fellowship program directors found that only 60% of programs currently offer formal training in pain management, communication of bad news, or framing a conversation about disease prognosis.[12] The availability of this type of training is likely to grow as more institutions recognize the importance of education in these aspects of oncology care. Successful training in palliative care will require integrating existing departmental and institutional palliative care resources with fellowship and CME curricula.

According to results from the same survey, many resources for increased and improved training already seem to be available.[12] All of the responding programs reported having a palliative care consultation team, 42% have a surgical faculty member with clinical interest or expertise in palliative care, and 35% have a surgical faculty member with board certification in hospice and palliative medicine.

Lack of department support and a belief by curriculum program directors that fellows are uncomfortable dealing with death and dying patients—which could be due, at least in part, to the absence of training in the appropriate care of these patients—can act as barriers to the implementation of palliative care training. Furthermore, although the American Board of Surgery has a partnership with the American Board of Internal Medicine to provide certification in hospice and palliative medicine, not all surgeons who treat cancer will be able to complete an additional full year of training in palliative care.

The Society of Surgical Oncology and American Hepato-Pancreato-Biliary Association have recognized the value of palliative care training during fellowship, but these national leadership organizations can better integrate palliative care training into the defined curriculum objectives for fellows by developing short, intensive courses that can be provided at medical conferences and by advancing partnerships with existing committees on palliative care education.

Progress has been made in the presentation of palliative care research at prominent surgical meetings and the integration of patient-centered care goals in the general surgery residency curriculum objectives, but surgical departments need to further recognize that improved palliative care training, particularly for surgeons treating patients with cancer, has the potential to dramatically improve patient satisfaction and outcomes.

The ongoing development of CME related to palliative care is undeniably important for surgeons in practice. There is great potential to integrate palliative care training into the curriculum of surgical fellowships to better prepare the next generation of surgeons to practice evidence-based, multidisciplinary patient care to maximize patient QoL. ■

REFERENCES

1. Hanna NN, Bellavance E, Keay T. Palliative surgical oncology. *Surg Clin N Am*. 2011;91(2):343-353. doi: 10.1016/j.suc.2010.12.004.
2. Sullivan DR, Forsberg CW, Golden SE, Ganzini L, Dobscha SK, Slatore CG. Incidence of suicide and association with palliative care among patients with advanced lung cancer. *Ann Am Thorac Soc*. 2018;15(11):1357-1359. doi: 10.1513/AnnalsATS.201805-299RL.
3. Hui D, Hannon BL, Zimmerman C, Bruera E. Improving patient and caregiver outcomes in oncology: Team-based, timely, and targeted palliative care. *CA Cancer J Clin*. 2018;68(5):356-376. doi: 10.3322/caac.21490.
4. Brasel KJ, Weissman DE. Palliative care education for surgeons. *J Am Coll Surg*. 2004;199(3):495-499.
5. Dunn GP. Surgery, palliative care, and the American College of Surgeons. *Ann Palliat Med*. 2015;4(1):5-9. doi: 10.3978/j.issn.2224-5820.2015.01.03.
6. The American Board of Surgery: Specialty of General Surgery Defined. http://www.absurgery.org/default.jsp?aboutsurgerydefined. Accessed December 31, 2018.
7. Galante JM, Bowles TL, Khatri VP, Schneider PD, Goodnight JE Jr, Bold RJ. Experience and attitudes of surgeons toward palliation in cancer. *Arch Surg*. 2005;140(9):873-880.
8. Bateni SB, Canter RJ, Meyers FJ, Galante JM, Bold RJ. Palliative care training and decision-making for patients with advanced cancer: a comparison of surgeons and medical physicians. *Surgery*. 2018;164(1):77-85. doi: 10.1016/j.surg.2018.01.021.
9. Suwanabol PA, Kanters AE, Reichstein AC. Characterizing the role of U.S. surgeons in the provision of palliative care: a systematic review and mix-methods meta-synthesis. *J Pain Symptom Manage*. 2018;55(4):1196-1215. doi: 10.1016/j.jpainsymman.2017.11.031.
10. Mougalian SS, Lessen DS, Levine RL, et al. Palliative care training and associations with burnout in oncology fellows. *J Support Oncol*. 2013;11(2):95-102.
11. Amini A, Miura JT, Larrieux, et al. Palliative care training in surgical oncology and hepatobiliary fellowships: a national survey of the fellows. *Ann Surg Oncol*. 2015;22(6):1761-1767. doi: 10.1245/s10434-014-4226-0.
12. Larrieux G, Wachi BI, Miura JT, et al. Palliative care training in surgical oncology and hepatobiliary fellowships: a national survey of program directors. *Ann Surg Oncol*. 2015;22(suppl 3):S1181-S1186. doi: 10.1245/s10434-015-4805-8.

Join CURE® for a Memorable Night Out at This Year's ONS Congress!

HONOR ONCOLOGY NURSING AT AN INSPIRATIONAL EVENING FEATURING FOOD, MUSIC & FUN!

CURE® 2019 Extraordinary Healer® AWARD FOR ONCOLOGY NURSING

Thursday, April 11, 2019
Oncology Nursing Society
44th Annual Congress
Hilton Anaheim
Pacific A-D
777 W. Convention Way
Anaheim, CA 92802
6:00 p.m.-7:30 p.m.
(Check-in is from 5:30 p.m. to 6:00 p.m.)

Evening reception featuring refreshments, hors d'oeuvres and reception buffet.

Registration is FREE!
To register, visit **curetoday.com/extraordinaryhealer**
or call 609-716-7777, ext. 313.

Please note this event will sell out. All pre-registrants must pick up their ticket at the CURE® magazine ONS booth to secure a seat.

PRE-REGISTRATION AND SECURING A TICKET IS REQUIRED

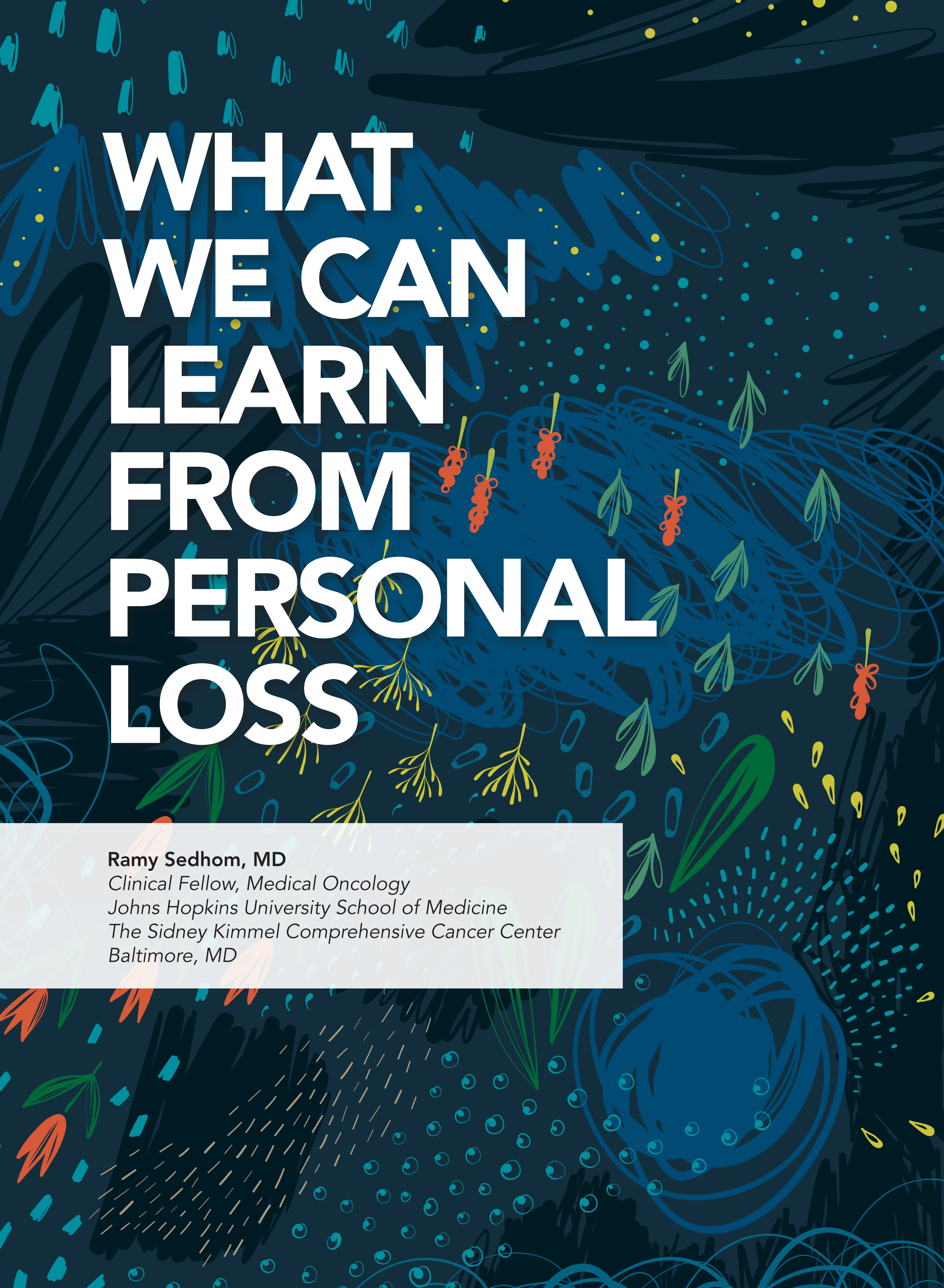
Award-winning ***CURE® magazine*** continues its tradition of inviting readers to submit essay nominations describing the compassion and helpfulness they received from a special oncology nurse. An evening reception will honor three essay finalists and the nurses they nominated, and one nurse finalist will be presented with the **2019 *CURE®* Extraordinary Healer® Award for Oncology Nursing.** Don't miss this chance to join hundreds of your peers and celebrate the field of oncology nursing!

To learn more about ***CURE®*** and the **Extraordinary Healer® Award**, visit **curetoday.com/extraordinaryhealer**.

Meeting space has been assigned to provide a symposia supported by CURE® Media Group during the Oncology Nursing Society's (ONS) 44th Annual Congress, April 11-14, 2019, in Anaheim, California. The Oncology Nursing Society's assignment of meeting space does not imply product endorsement.

cure®

curetoday.com



WHAT WE CAN LEARN FROM PERSONAL LOSS

Ramy Sedhom, MD
Clinical Fellow, Medical Oncology
Johns Hopkins University School of Medicine
The Sidney Kimmel Comprehensive Cancer Center
Baltimore, MD

For more practical articles from *Oncology Fellows*, go to **onclive.com/link/2375.**

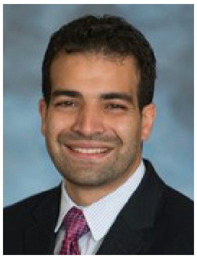
MY COLLEGE ROOMMATE CALLED on Thanksgiving to discuss his recent test results. He had been experiencing worsening headaches that weren't going away. After the phone call, I broke into tears, knowing the road ahead. His mother, who would be heroic throughout the ordeal, texted me to confirm what she already knew: Her only son was going to die from a glioblastoma multiforme (GBM).

A few short months later, after 1 of his radiation sessions, he had a seizure. I received a call that he was admitted to the intensive care unit and intubated. The prognosis didn't look good. His mother, tearful over the phone, kept repeating, "I'm so scared."

As an oncology fellow, giving bad news can just beat you down. It's been the most difficult transition from internal medicine. All throughout training, we do our best to help patients and their families. But there are more cases with happy, complete endings in internal medicine.

Caring for patients with cancer requires a change in perspective. The reward is the fight itself, the daily work. It's the lives we're able to save and the dignity we're able to preserve in death. But the grief, I learned, is not limited to patients or their families. It is also an unaddressed part of the cancer continuum.

Over the 6 months following his diagnosis, I saw surgery, chemotherapy, and radiation treatments ravage my friend's body. I spoon-fed him. I held back tears when I helped him to the bathroom at night. The last time I'd held a bowl for him to vomit, we were in our prime health, college students celebrating after a week of finals. Now, a few short years later, he was thin and had lost the ability to walk.


Ramy Sedhom, MD

We tried to share some old stories, but he had trouble focusing. I couldn't tell if it was fatigue or sadness that was pulling him down, but it deepened with each day. He told me that his favorite part of the day was being asleep—he was never sick in his dreams.

The disease was relentless. He no longer had the will to live. A few weeks later, I watched him drift into a coma in the intensive care unit where I rotated as a medical student. Days after that, I prayed silently at his funeral service.

I still keep in touch with his mother. She's never regained her vigor, even though it's been years since her son died. Every time our eyes connect, I can see her searching for him. I, too, feel a sense of guilt that is difficult to explain. Why was I so lucky to remain in good health? Should I ask how she is doing or not bring up her son? Do I tell her I miss him? Or will that make her relive a traumatic memory?

During a rotation 3 years later, I was discussing the care of a young patient with terminal GBM who was in the process of transitioning to hospice with some other residents. There were no viable treatment options left, and the care team muttered a series of negative commentaries on this young patient's family and their reluctance to "give up" on life and "accept that he was dying."

One of the more experienced oncologists had stopped by after clinic to see his admitted patients and shared a moment of compassion, surprising both the grumbling residents and the patient. "Sometimes," he said, "there are things in life worse than dying." I tried to comfort my patient's mother while she broke down weeping. She was unable to hold her only son's hand.

The senior oncologist was familiar with the grief and suffering that continues for all those who experience the loss of a loved one. He interrupted any arguments among the assembled doctors, helping us to imagine how the patient must have felt. And while I realize that situations will always arise that cause moral distress for providers, we must remember the uniqueness of the dying experience.

We cannot always choose who will be here with us to receive our love, but we can still choose to be loving, patient, and understanding. And this is how I remember those dying in front of me each day—that each story comes with a history of suffering, sacrifice, and pain.

The experience of losing my friend has affected how I approach patients' family members as they're watching a loved one die. It is easy for physicians to pontificate about what we think is best, but we often forget about the memories that extend beyond our interactions to their families and loved ones. There is no role for contention in a medical setting. Our care extends beyond our patients, to their wives, husbands, children, parents, and friends.

As a matter of good practice, I've begun writing letters to the families of patients I've cared for and lost. I share what I learned from caring for them, that it was certainly a privilege, and that it has prepared me to help a future patient suffering through a similar experience. I don't know how the families take it, but for me it provides closure and an opportunity to recover a tangible piece of what was lost.

We all want to hold on to a few more moments with the people we love–we are never taught how to die. But always remember those you've lost along the way. It humanizes the caregiver experience. I'll forever miss my friend, but he has taught me so much about how to care for others. ■

ASCO Survey Finds Strong Support for Alternative Therapies

Tony Hagen

ALTHOUGH ALTERNATIVE THERAPIES are not standard of care for cancer, public faith in these treatments is strong, according to the 2018 National Cancer Opinion Survey from the American Society of Clinical Oncology (ASCO). The report indicates that almost 40% of Americans believe that alternative therapies alone can cure cancer, medical marijuana should be available to patients with cancer, and efforts to restrict access to opioids should not apply to patients with cancer. The survey was conducted during the late summer of 2018 among 4038 US adults aged 18 years and older (**TABLE 1**).

The ASCO survey found that a large majority of Democrats and Republicans believe that alternative therapies can serve as complementary care for traditional cancer treatment, whereas just a minority of both parties believe that alternative therapies, which are not used in conjunction with traditional treatments, can cure cancer (**TABLE 2**). Most of those who have experienced cancer (84%) support the use of medical marijuana, which can offer pain relief. A small proportion of the same respondents said that they believe cancer can be cured solely through alternative treatments (22%).

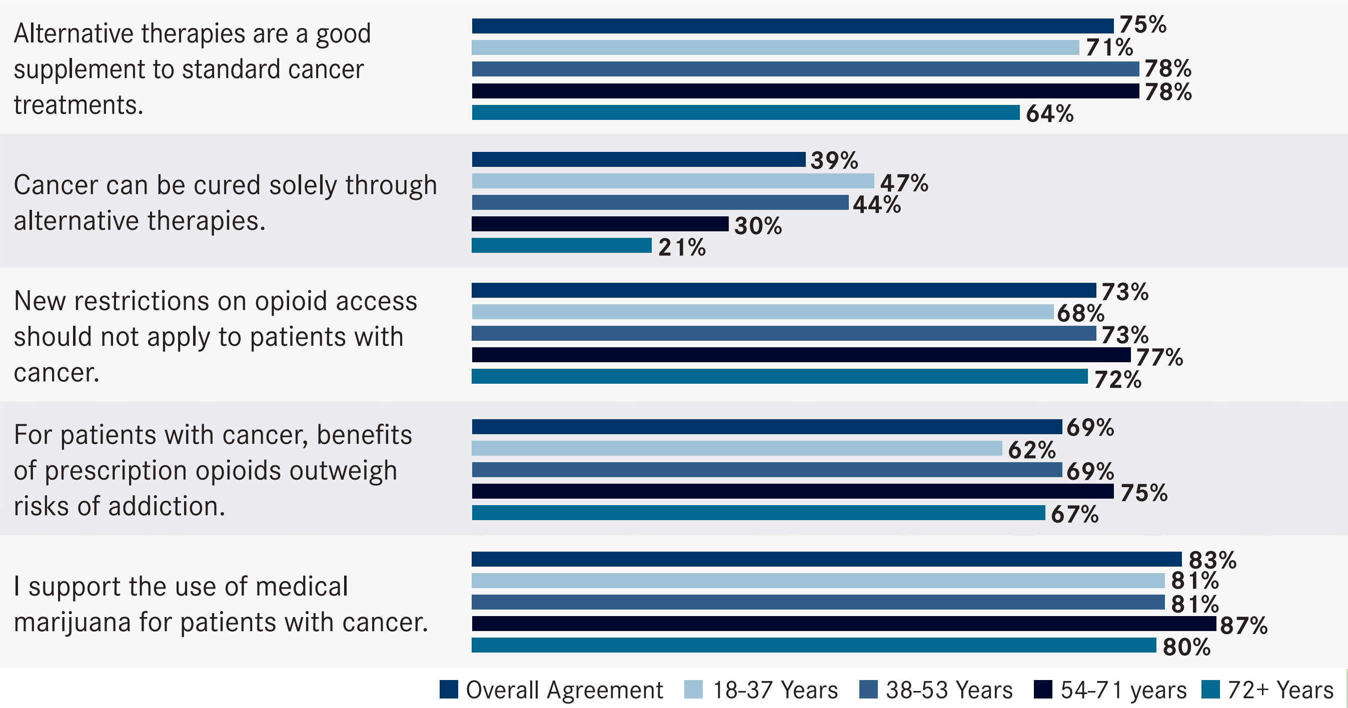
Interestingly, support for alternative therapies as a supplement to traditional cancer treatments was greater among caregivers, family members, and those with no experience of cancer than among patients with cancer (**TABLE 3**). Among patients who used medical marijuana for cancer management (n = 73), 44% said it worked "very well"; 49%, "somewhat well"; and 6%, "not very well."

Alternative treatments such as acupuncture, meditation, medical marijuana, and steroids tend to rank low on the list of methods for symptom management that patients discuss with physicians; OTC pain relievers (30%) and prescription opioids (27%) top the discussion list. ■

REFERENCE

National Cancer Opinion Survey. American Society of Clinical Oncology website. asco.org/research-progress/reports-studies/national-cancer-opinion-survey. 2018. Accessed January 7, 2019.

TABLE 1. AGE-SPECIFIC RESPONSES



For more timely and practical articles, go to **onclive.com/link/2375.**

TABLE 2. POLITICAL SUPPORT FOR ALTERNATIVE TREATMENTS

	Overall Agreement	Republican	Democrat	Independent
Alternative therapies are a good supplement to standard cancer treatments.	75%	75%	79%	71%
Cancer can be cured solely through alternative therapies.	39%	39%	38%	38%
I support medical marijuana for patients with cancer.	83%	76%	89%	83%
I support medical marijuana for any medical reason.	76%	65%	84%	76%

TABLE 3. OPINIONS ON ALTERNATIVE THERAPIES BY EXPERIENCE

	Have/Had Cancer	Family Member/Loved One	Caregiver	No Experience
Alternative therapies are a good supplement to standard cancer treatments.	68%	74%	78%	75%
Cancer can be cured solely through alternative therapies without standard cancer treatments.	22%	29%	38%	42%
New rules tightening prescription opioid access should not apply to patients with cancer.	69%	74%	79%	71%
Benefits of prescription opioids for patients with cancer outweigh risks of potential addiction.	63%	66%	75%	68%

More Progress Is Needed to Bring Oncology Practice Into the Digital Health Age

Edward P. Ambinder, MD

THE EXPLOSION OF DATA in medicine and the need to manage the information has challenged oncologists and patients. Common internet data and interoperability standards with electronic medical software such as electronic health records (EHRs) have become the glue that holds our patchwork healthcare system together; however, these tools are still perceived as being unable to provide actionable data that are structured, interactive, and both human and machine readable. This is especially true for the many medical specialties within oncology. Seamless interoperability, intelligent workflows, easy navigation, intelligent education with clinical decision support (CDS), and appropriate medical alert notifications should all be goals for improvement.

Given the logarithmic growth of data captured and the merging of information technologies, interoperability standards should be applied to clinical practice, physician reimbursement, quality measurement, outcomes documentation, medical research, governmental regulations, business practices, physician–patient communication, care coordination, and seamless data sharing.

In fact, interoperability standards across the care continuum have become a top priority for all healthcare stakeholders. Oncology surveys, even back in 2006, show that EHRs do well with billing and payment documentation, administration, medical research, and patients' clinical data.

Regulations have produced excessive amounts of EHR clinical documentation requirements. EHR use has increasingly reduced face-to-face time between patients and doctors and, most critically, fails to provide what has become necessary for an efficient and well-coordinated electronic healthcare system. One of the missing parts is seamless transmission

TABLE. INDUSTRY TOOLS FOR IMPROVING THE SHARING OF HEALTHCARE DATA

1	**Consolidated-Clinical Document Architecture (C-CDA)** C-CDA creates clinical documents that can be read by humans and are encoded in machine-readable extensible markup language. C-CDA provides templates and prescribes their use for specific document types, such as continuity of care documents, consultation notes, diagnostic imaging reports, discharge summaries, history and physical summaries, operative notes, procedure notes, and progress notes. The 2015 Edition Health IT Certification Criteria certified these documents for meaningful-use stage 2 requirements for electronic health record implementation, usability, and quality measurement. However, C-CDA is an example of a widely used standard that allows for too much variation in implementation and works with documents only and not granular data elements.
2	**Direct Secure Messaging (Direct)** The Direct secure messaging network is a document-based exchange that allows doctors and patients to send and receive encrypted messages. It is similar to email, but includes added security. It is used for provider-to-provider and provider-to-patient bidirectional exchange.
3	**Fast Healthcare Interoperability Resources (FHIR)** FHIR has become a foundational standard for clinical interoperability based on its ability to provide inexpensive, simplified, innovative, accelerated, scalable, and effective clinical information sharing of both granular data and complete documents between systems. Developed by the nonprofit Health Level Seven International, FHIR has gained rapid acceptance by almost all stakeholders using healthcare information technology (IT). It is a large community open to all health IT experts for healthcare data exchange built with modern internet technologies using well-defined data models and application programming interfaces to improve interoperability and destroy data silos. FHIR is open-source and free and has already developed many open-source tools and libraries.

of holistic medical data from multiple separate EHR medical portals, data that can be easily captured, auto-updated with user notifications, and aggregated from multiple different healthcare sources.

In addition, medical data must be secure and compliant with the Health Insurance Portability and Accountability Act. Data should be seamlessly interoperable with all authorized and authenticated healthcare stakeholders and under the patient's control, using educational and CDS apps, which are not currently sufficiently available in most EHRs.

Technological advancements notwithstanding, our EHRs still require the retyping of regulations set by the Office of the National Coordinator for Health Information Technology and redictation of preexisting data because interoperability and data sharing capabilities are inadequate. Reusable, interoperable electronic data created by the primary care physician (PCP), a specialist, or even the patient would save oncologists significant time in getting this information into the computer. Seamless electronic access to medical data would improve value-based care so that it reflects the most effective treatment, with the most acceptable toxicities, administered at a nearby site without significant delay and at a fair cost. Part of achieving this goal would involve improved sharing of health data such as labs, vital signs, clinical documents, and medical observations.

As medicine enters the digital health age, there has been an exponential increase in the quantity of meaningful sources and types of medical data for individuals and populations. Health and wellness data available from our smartphones and watches include vital signs with pulse, blood pressure, glucose, and ketones. These devices now provide electrocardiograms and arrhythmia detection, as well as monitoring for emotions, exercise, sleep, and sleep apnea. These highly individualized data from wearable and mobile devices, such as the Apple Watch and the iPhone, are increasingly used to detect acute and chronic toxicity related to cancer and its treatment and can be provided outside the medical setting. These efficient systems can capture, monitor, analyze, and report all findings to patients' mobile devices and increasingly to our EHRs. These instruments provide volumes of "personomic" detail—different from knowledge of the disease itself—and much of these data will come from different academic centers and laboratories.

Patients with cancer have access to the internet for their health and medical education, but these portals can be confusing. Many who use wearable computing medical devices and medical apps bitterly complain about the inability to easily upload the increasing amount of useful patient-generated health and wellness data to their doctors' and hospitals' systems, as well as the inability to easily download their health data generated by the EHRs of their providers and hospitals. The basic reason for these complaints is that although over 90% of patients' medical data reside in electronic form in hospital and clinic computers today, only 30% to 40% of the data can be easily exchanged with another computer, requiring oncologists to retype, redictate, or scan preexisting data from the PCP, the specialists, and even the patients.

Data that we collect in our EHR can be structured as coded data so that they are both machine and human readable, and by adhering to common data and interoperability standards, we can transmit these data to other computers with complete understandability. The data can also be reused or managed in a readable, unstructured format.

There are 3 industry standards for health data exchange and interoperability that support mainly foundational and structural interoperability (**TABLE**).

Much needs to be done to improve interoperability of medical data systems. However, standards and new systems are developing at a rapid pace, affording advantages and efficiencies where, previously, enormous impediments stood in the way. As 2019 gets underway, we can now begin to imagine taking full advantage of the maturing of digital health and merging it with standards developed for healthcare data and interoperability. ■

Edward P. Ambinder, MD, is a clinical professor of medicine emeritis at the Tisch Cancer Center, Icahn School of Medicine at Mount Sinai, New York, New York. A respected leader in oncology informatics, he co-created the first oncology electronic medical record and has been an active member of the American Society of Clinical Oncology's informatics activities since 1995. He is nationally recognized for his professional roles and publications on cancer.

From One Cancer to Many: How NSCLC Treatment Has Changed in 20 Years

REFLECTING ON THE PAST 20 years of advances in non–small cell lung cancer (NSCLC), I am struck by how long a period went by with so little progress. Of course, today NSCLC treatment is changing at a breakneck pace, with new advancements presented at seemingly every major meeting and newly approved drugs emerging multiple times per year. However, not that long ago, NSCLC treatment was anything but exciting, and it took a completely different way of thinking about this disease to make today's advances happen.

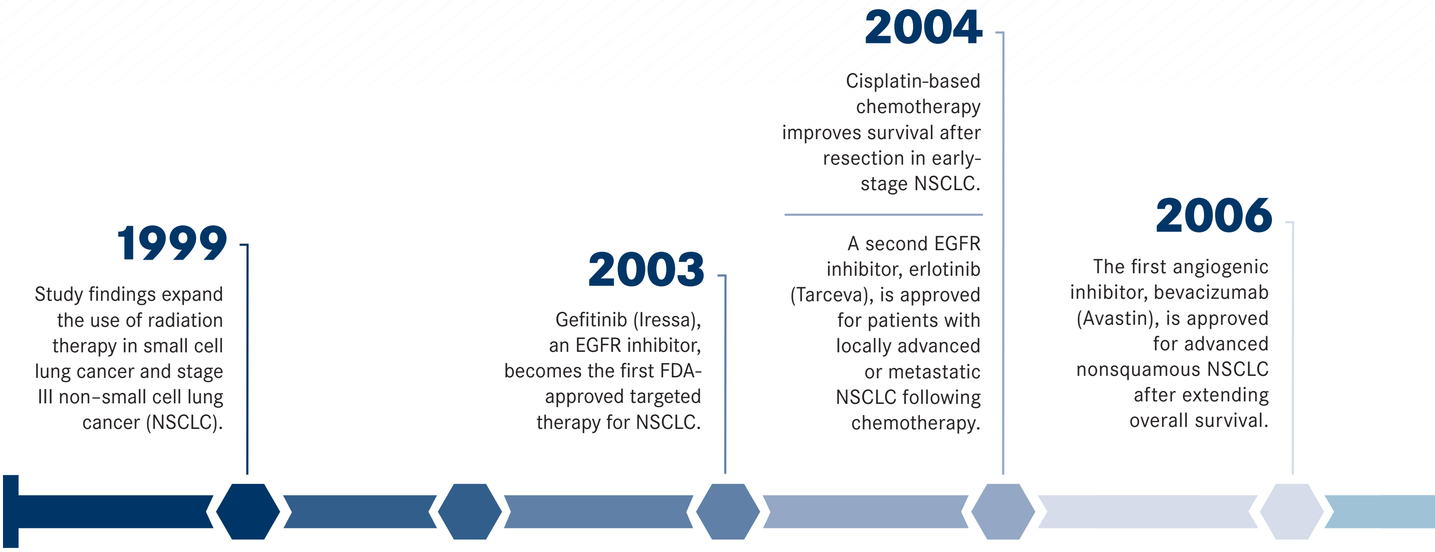

Nathan A. Pennell, MD, PhD

In 1999, the data supporting routine use of platinum-based chemotherapy were still fresh, based on a meta-analysis of chemotherapy trials showing a modest survival benefit with these regimens.[1] Prior to that, there really was no proven therapy for advanced NSCLC if it wasn't resectable or amenable to radiation. In fact, the name "non–small cell" itself reflects the recognition at the time that the only value in a diagnosis of NSCLC was to rule out the more treatable small cell carcinoma (No, I'm not kidding.)

The understanding that platinum-based chemotherapy was beneficial led to a flurry of studies, culminating in 2002 with the ECOG 1594 trial, which showed that all platinum-doublet regimens were equivalent in NSCLC, with a response rate of 19% and median survival of 8 months. It was clear by then that new strategies would be needed to move the field forward and that treating everyone the same meant that just a few people experienced benefit.[2]

Over the next decade the field saw multiple new targeted agents enter the fray, and for the first time a diagnosis of "non–small cell carcinoma" was no longer good enough. We needed to know at least if it was squamous cell carcinoma or adenocarcinoma for both safety and efficacy reasons.[3,4] We had our first evidence that genetic subtypes of lung adenocarcinoma existed with the discovery of *EGFR* mutations and *ALK* fusion genes and that these types of tumors benefited from up-front genetic testing because targeted treatments worked much better than one-size-fits-all chemotherapy.[5,6]

In the most recent decade—really, the past 6 to 7 years—we have seen an acceleration of discovery in NSCLC, primarily driven by our understanding that there are



1999

Study findings expand the use of radiation therapy in small cell lung cancer and stage III non–small cell lung cancer (NSCLC).

2003

Gefitinib (Iressa), an EGFR inhibitor, becomes the first FDA-approved targeted therapy for NSCLC.

2004

Cisplatin-based chemotherapy improves survival after resection in early-stage NSCLC.

A second EGFR inhibitor, erlotinib (Tarceva), is approved for patients with locally advanced or metastatic NSCLC following chemotherapy.

2006

The first angiogenic inhibitor, bevacizumab (Avastin), is approved for advanced nonsquamous NSCLC after extending overall survival.

Sources: Cancer progress timeline: lung cancer. ASCO website. asco.org/research-progress/cancer-progress-timeline/lung-cancer; Drugs@FDA: FDA approved drug products.FDA website. accessdata.fda.gov/scripts/cder/daf/index.cfm.

many types of lung cancer. Ubiquitous pie charts split NSCLC into multiple pathologic, genetic, and biomarker-defined groups that now must be determined before a course of therapy can be chosen. At least 4 genetic tests (*EGFR*, *ALK*, *ROS1*, and *BRAF*) should be run on every patient with lung adenocarcinoma, with more waiting in the wings (I see you, *MET* and *RET*). PD-L1 immunohistochemical testing identifies which patients would benefit from immune checkpoint inhibitors as monotherapy or if combination chemoimmunotherapy would be the best choice.

Who could have foreseen in 1999 that in 2019 essentially no patient with NSCLC should receive chemotherapy alone as their optimal choice of therapy?

Whether you call it precision medicine or personalized therapy, this approach has led to real hope of lasting benefit for many patients with NSCLC. In 2019, a new patient with stage IV *EGFR*-mutant or *ALK*-positive adenocarcinoma can expect to live a median of 3 to 5 years, and the 30% of patients with >50% PD-L1 expression have a median survival of 30 months with pembrolizumab (Keytruda), with some living beyond 5 years and possibly being cured.[7,8] We still have a long way to go, but at the current pace of discovery, I can't wait to see what the next 20 years hold! ■

Nathan A. Pennell, MD, PhD
Cleveland Clinic Cancer Center
Case Comprehensive Cancer Center
Cleveland, Ohio

REFERENCES

1. Non-small Cell Lung Cancer Collaborative Group. *BMJ*. 1995;311(7010):899-909.
2. Schiller et al. *N Engl J Med*. 2002;346(2):92-98.
3. Sandler et al. *N Engl J Med*. 2006;355(24):2542-2550.
4. Scagliotti et al. *J Clin Oncol*. 2008;26(21):3543-3551.
5. Lynch et al. *N Engl J Med*. 2004; 350(21):2129-2139.
6. Soda et al. *Nature*. 2007; 448(7153):561-566.
7. Solomon et al. *J Clin Oncol*. 2018;36(22):2251-2258.
8. Reck et al. *N Engl J Med*. 2017;376(10):997.

2009

Maintenance therapy is shown to improve survival in advanced NSCLC.

2011

Crizotinib (Xalkori) is the first drug to gain FDA approval for *ALK*-rearranged NSCLC.

2015

Nivolumab (Opdivo) and pembrolizumab (Keytruda) usher in the immunotherapy era in NSCLC for PD-1/PD-L1 immune checkpoint inhibitors.

2018

The FDA issues a rare new drug approval in small cell lung cancer, granting an indication for nivolumab for patients whose disease progresses after ≥2 lines of therapy.

© ERANICLE/ADOBE STOCK

2019 Oncology Conferences

© TRYFONOV/ADOBE STOCK

March 12, 2019
State of the Science Summit™:
Hematologic Malignancies
Intercontineal Hotel Miami
Miami, FL

March 14, 2019
State of the Science Summit™:
Gastrointestinal Malignancies
Sheraton Charlotte Hotel
Charlotte, NC

March 14-15, 2019
Clinical Application of CAR T Cells 2019
Zuckerman Research Center
New York, NY

March 15-16, 2019
New York GU™: *12th Annual* Interdisciplinary Prostate Cancer Congress® and Other Genitourinary Malignancies
The Westin New York at Times Square
New York, NY

March 20-23, 2019
16th St. Gallen International Breast Cancer Conference: Primary Therapy of Early Breast Cancer
Austria Center
Vienna, Austria

March 22, 2019
Approach to Gastrointestinal Premalignant Conditions: A 2019 Update
Zuckerman Research Center
New York, NY

March 26, 2019
State of the Science Summit™:
Ovarian Cancer and STS
Millennium Hilton New York
New York, NY

March 27-30, 2019
SSO Annual Cancer Symposium
San Diego Convention Center
San Diego, CA

March 28, 2019
OncLive® Regional Seminar Series:
Hodgkin Lymphoma/CTCL
Capital Grille Hartford
Hartford, CT

March 29-April 3, 2019
AACR Annual Meeting 2019
Georgia World Congress Center
Atlanta, GA

April 10, 2019
Cutting CVD Risk by Adding PCSK9 Inhibitors: What the Internist Needs to Know
Philadelphia Mariott Downtown
Philadelphia, PA

April 10, 2019
State of the Science Summit™:
Breast Cancer
Dallas, TX

April 10-13, 2019
ELCC 2019—European Lung Cancer Congress
Palexpo Exhibition Centre
Geneva, Switzerland

April 11, 2019
State of the Science Summit™:
Hematologic Malignancies
The Colonnade Boston Hotel
Boston, MA

April 16, 2019
State of the Science Summit™:
Lung Cancer
Rosewood Mansion on Turtle Creek
Dallas, TX

2019 Oncology Conferences (continued)

April 17, 2019
OncLive® Regional Seminar Series: Pancreatic Cancer
Alley Cat Oyster Bar
Cleveland, OH

April 18, 2019
State of the Science Summit™: Breast Cancer
The Langham Huntington, Pasadena
Pasadena, CA

April 20, 2019
State of the Science Summit™: NETS
Hyatt Regency Lexington
Lexington, KY

April 23, 2019
State of the Science Summit™: Breast Cancer
Milwaukee, WI

April 27, 2019
***4th Annual* School of Gastrointestinal Oncology™ (SOGO®)**
Grand Hyatt Washington
Washington, DC

May 2-4, 2019
ESMO Breast Cancer
Maritim Hotel Berlin
Berlin, Germany

May 3, 2019
Transforming Treatment Paradigms in Renal Cell Carcinoma: Understanding the Role of Risk Stratification and Emerging Data in the Adjuvant Setting
McCormick Place West
Chicago, IL

May 9, 2019
State of the Science Summit™: Gastrointestinal Malignancies
Embassy Suites Denver Tech Center
Denver, CO

May 9-10, 2019
1st Annual Precision Medicine Symposium: An Illustrated Tumor Board
New York, NY

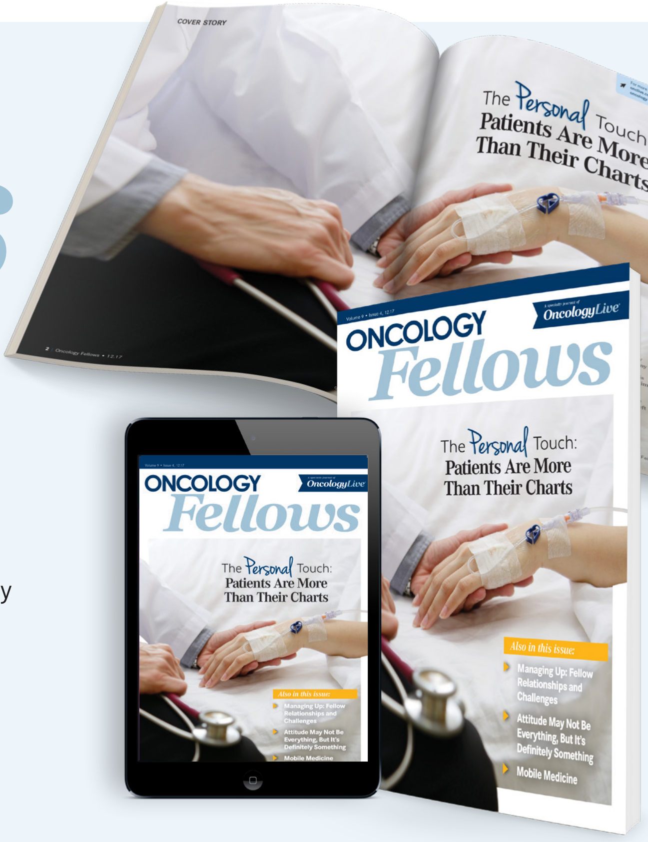
May 18-21, 2019
Digestive Disease Week
San Diego Convention Center
San Diego, CA

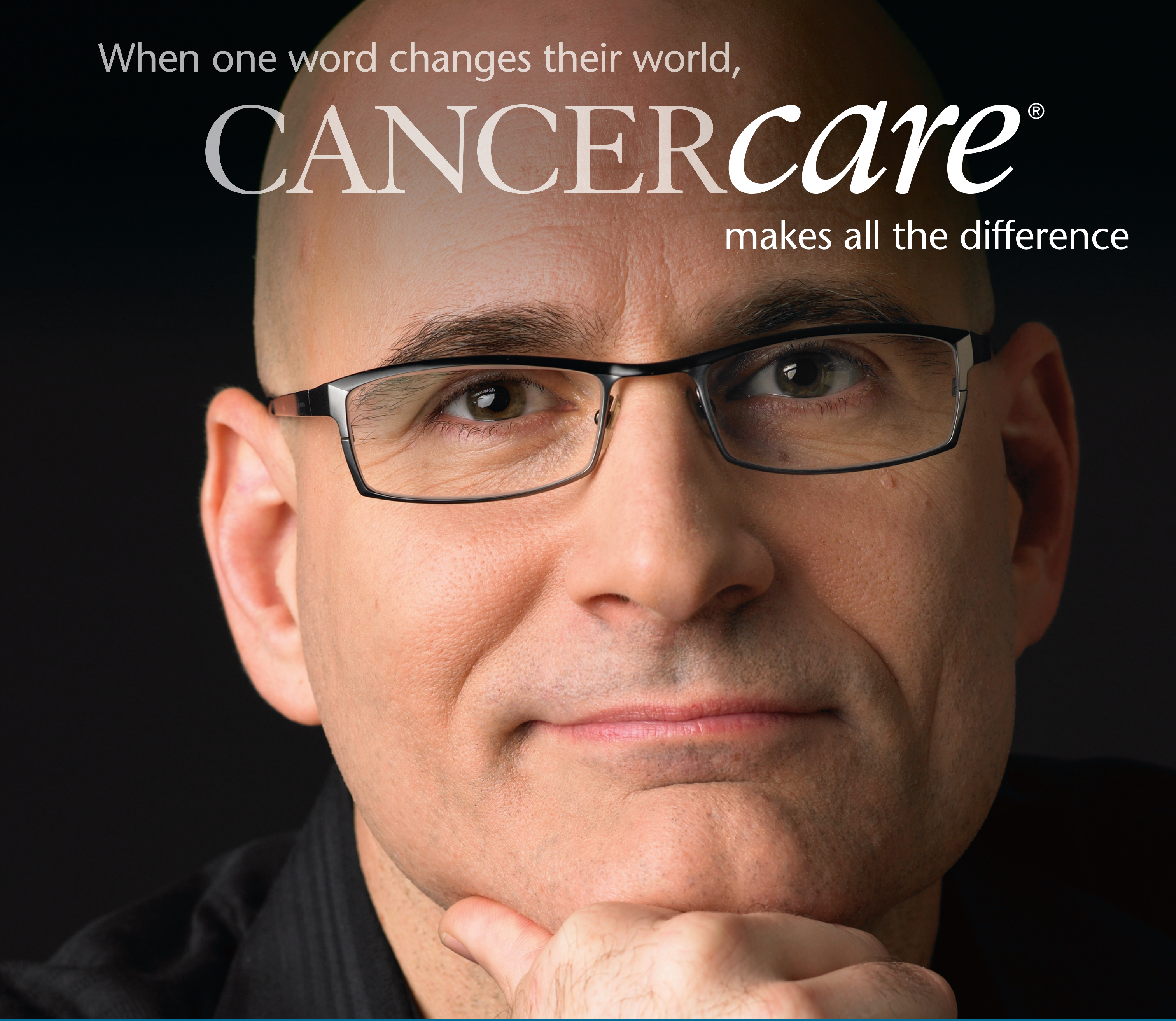
May 21-23, 2019
17th CIMT Annual Meeting
Rheingoldhalle Congress Center
Mainz, Germany

May 31-June 4, 2019
2019 ASCO Annual Meeting
McCormick Place
Chicago, IL

June 12, 2019
State of the Science Summit™: Lung Cancer
Cleveland, OH

June 22, 2019
3rd Annual International Congress on Oncology & Pathology™: Towards Harmonization of Pathology and Oncology Standards
Crowne Plaza® Times Square Manhattan
New York, NY




When one word changes their world,
CANCER*care*®
makes all the difference