

PROMISE & PROGRESS

THE SIDNEY KIMMEL COMPREHENSIVE CANCER CENTER AT JOHNS HOPKINS

50

TURNING RESEARCH INTO RESULTS

1973 – 2023



JOHNS HOPKINS is one of America's first research universities and home to the Sidney Kimmel Comprehensive Cancer Center. From its inception, our Cancer Center had full support and cooperation of many departments, including Medicine, Surgery, Pediatrics, Radiology, Engineering, Mathematics and more, with the Department of Oncology serving as the academic home for the planning and operation of the Cancer Center at Johns Hopkins. This interdisciplinary focus on cancer continues to expand, and our diverse team of experts now spans five schools and 35 departments and includes oncologists, radiation oncologists, pathologists, radiologists, population scientists, nurses, engineers, physicists, astronomers, bioethicists and more, working together to combat challenging cancer problems.



1973 50 2023

FIFTY YEARS OF TURNING RESEARCH INTO RESULTS

P&P

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EDITOR'S MESSAGE

THIS IS PERSONAL for me, and what you will read inside this 50th anniversary issue of *Promise & Progress* truly is from the heart.

I started my career at the Johns Hopkins Kimmel Cancer Center in 1986 as a new college graduate and a newlywed whose husband was battling stage 4 Hodgkin's lymphoma. I was desperately searching for any bit of information about this disease everyone feared, but until this moment had never touched me personally. There was no internet, no email or social media, and the books about cancer in the library were often outdated soon after they were printed.

I yearned for information that would bring us hope and would help us understand the disease we were fighting. Words like oncology, lymphoma, and metastasis were foreign to me. It was then I decided to put my journalism degree to work and write about cancer with the goal of bringing hope and knowledge to others by writing about cancer in a way everyone could understand.

Those books I got from the library when my husband was diagnosed all told me that he was going to die and quickly. They were published before one of the first great success stories in the War on Cancer—a treatment for Hodgkin's lymphoma that made the almost uniformly fatal cancer curable for nearly 90% of patients.



We were about to embark on an era of tremendous progress in understanding how cancer developed, and as a result, how it could be better treated. I had a front row seat with the privilege of being able to tell these stories of promise and progress.

This has always been more of a mission than a job for me.

Dr. David Ettinger, you asked me often, "When are you going to write the history of

this Cancer Center?" I hope what you will read in this issue fulfills that request. I hope it honors the journeys of our patients and families, celebrates the amazing work of the many incredible people of a Cancer Center that is second to none, acknowledges the many donors who made the work possible, and brings some comfort and hope to those who are waging their own battles.

With gratitude,

A handwritten signature in black ink that reads "Valerie Mehl".

Valerie Matthews Mehl
Editor and Sr. Writer
The Johns Hopkins Kimmel Cancer Center
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1970s

The National Cancer Act of 1971 leads to the creation of the National Cancer Institute. In 1973, the trustees of the University and Hospital approve construction of the Johns Hopkins Oncology Center, which opens in April 1977. The Center is among the first to earn comprehensive cancer center status and recognition as a "Center of Excellence."

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1980s

Our researchers begin to crack the cancer code, revealing it as a disease caused by an accumulation of genetic mistakes. This becomes the paradigm for much of modern cancer research, ushering in the age of molecular cancer biology with new gene-targeted therapies and paving the way for gene-based screening tests for cancer.

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1990s

The field of epigenetics, characterized by chemical alterations to genes that support the growth and spread of cancer without mutating the DNA, becomes part of mainstream cancer medicine. The Cancer Center's discoveries in genetics and epigenetics are regarded as the most relevant in cancer biology, earning the Center the nickname "Cancer Research Powerhouse."

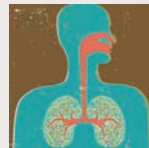
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2000s

Translational, bench-to-bedside research continues to be the hallmark of our Cancer Center. Breakthroughs in research and clinical care are facilitated by two new cancer research buildings, and our Center is renamed in honor of philanthropist **Sidney Kimmel**.

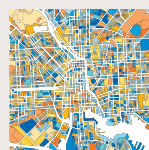
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2010s

Cancer care moves primarily to the outpatient setting, and the Kimmel Cancer Center expands, occupying the largest footprint at Johns Hopkins. Breakthroughs in immunotherapy, using drugs and vaccines to unleash the natural killing power of the immune system against cancer, are a key clinical advance. Multidisciplinary Clinics, with specialists from all fields related to cancer care working together, become the standard, leading to improved therapies and survival.

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2020s

Entering the digital age of cancer medicine, advanced computer technologies, such as machine learning, are making sense of the billions of data points generated in modern cancer research and medicine to predict the best treatment options for each patient, understand disparities and close gaps, improve cancer detection, and reveal novel ways to combat cancer.

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“The charge to take the foundation they put in place and somehow improve upon it has been my mission as the Center’s third director.”

—*Bill Nelson*



FROM THE DIRECTOR

AS ONE OF America's first research universities, it was fitting that Johns Hopkins was also one of the first nationally designated comprehensive cancer centers. In 1973, the university and hospital trustees approved construction of our Cancer Center. From the day we opened the doors, a talented and tenacious group of medical pioneers led the way in understanding cancer through research, developing therapies, attending to the complex needs of patients and disseminating findings to communities everywhere.

The pioneers included George Santos, a leader in bone marrow transplant; Paula Pitha, the center's first laboratory researcher; Linda Arenth, who helped develop the standards of cancer nursing; Mike Colvin, who discovered how the chemotherapy medication cyclophosphamide worked and how to best use it to treat patients; Brigid Leventhal, our first pediatric oncologist; Moody Wharam, who revolutionized radiation therapy; and Ray Lenhard, Donna Cox and David Ettinger, who ensured advances were quickly communicated to oncologists and patients around the globe.

Leading this unique new enterprise — a medical center focused solely on the research and treatment of cancer — was Albert Owens Jr. I am humbled to follow in the footsteps of two of the greatest figures in cancer medicine: Al Owens and Martin Abeloff. Dr. Owens helped found the field of oncology and paved the way for our Cancer Center, and our second director, Martin Abeloff, led the center through a period of rapid growth in physical structures and discovery, with particular attention to the care and comfort of patients and their families.

The charge to take the foundation they put in place and somehow improve upon it has been my mission as the Center's third director.

In this issue, you will read about our remarkable, groundbreaking history and the new pioneers who push the limits of human ingenuity to move cancer research and treatment forward.

Today, the Cancer Center occupies the largest footprint at Johns Hopkins, and our collaborations have grown to span five Johns Hopkins schools and 35 departments. Our experts have mapped the genetic blueprints for cancer, deciphered the epigenome, figured out ways to make the immune system fight cancer, brought proton therapy and other advanced technologies to radiation treatment, eliminated the need for perfect matches in bone marrow transplant, expanded community outreach to encompass diversity and inclusion, and entered the realm of digital cancer medicine. This digital technology has led to new frontiers, such as the microbiome and single cell sequencing, that allow us to look at cancer in completely new ways and uncover how individual cells in and around tumors influence cancer growth, spread, and response to treatment.

As we conquer new challenges, we owe a debt of gratitude to our greatest pioneer, Sidney Kimmel. Without his continuing generosity and historic gift in 2001, none of these advances would be possible. To Mr. Kimmel and the many other donors who advance our understanding of cancer and improve our ability to care for patients, and to our patients and their families, we commit to you an even brighter future. As we celebrate our history, we renew our mission to expand the boundaries of our imaginations until cure is possible for every patient.

William G. Nelson, M.D., Ph.D.

Marion I. Knott Professor and Director

The Sidney Kimmel Comprehensive Cancer Center
at Johns Hopkins

“As we celebrate our history, we renew our mission to expand the boundaries of our imaginations until cure is possible for every patient.”

–BILL NELSON

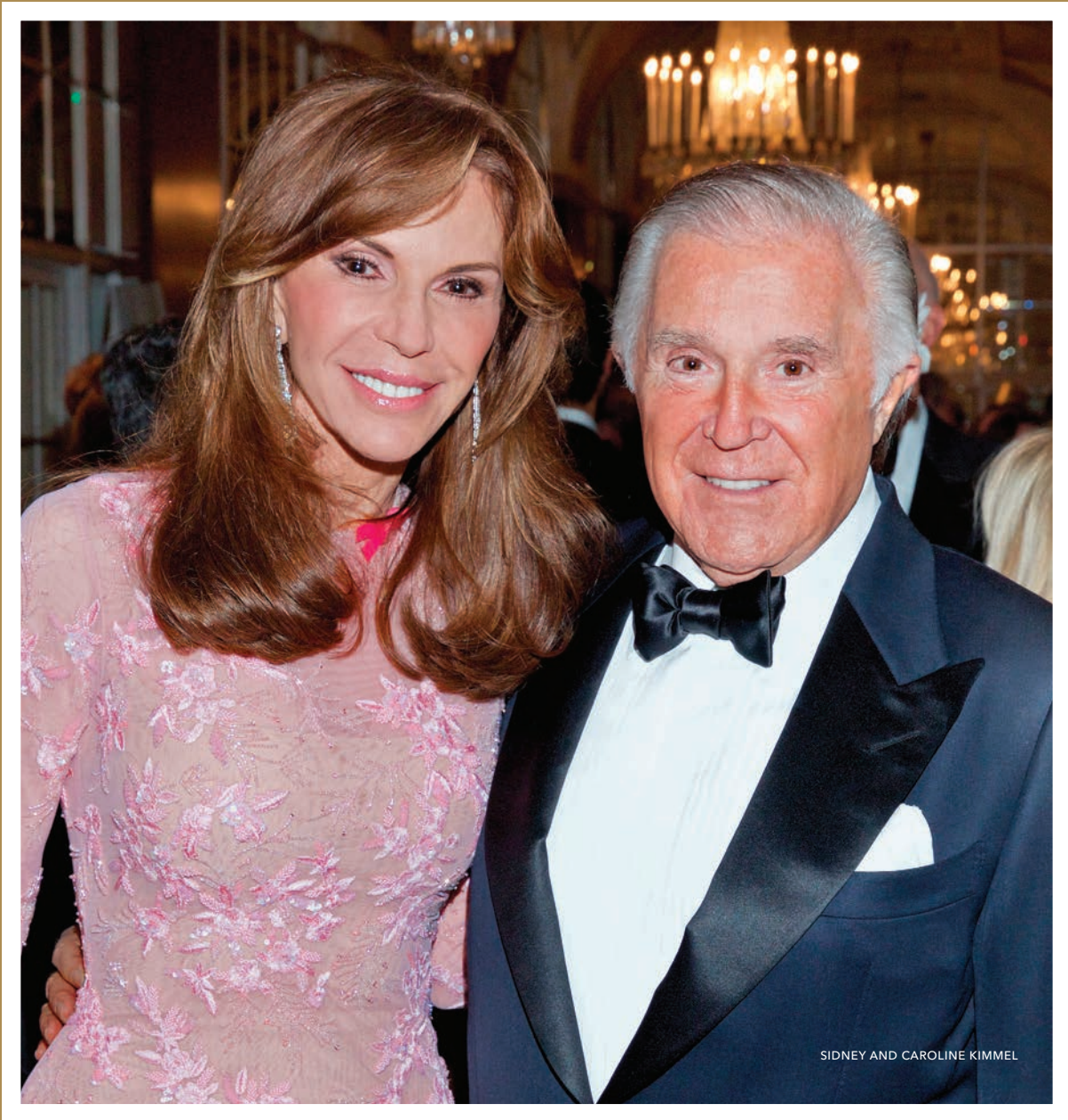




“The progress made against cancer is nothing short of amazing. Today’s advances save lives at a far faster pace than before. When it comes to cancer, we live longer, we diagnose sooner, we prevent better and advocate more strenuously. Still, there are a half million plus deaths a year, so we know our work is not done. This is a time of great research opportunity, and we must test the unknown to continue to make progress. Imagination is a beautiful thing. Can you imagine a world without cancer?”

A handwritten signature in white ink, appearing to read "Sidney Kimmel", is positioned above the printed name.

—Sidney Kimmel



SIDNEY AND CAROLINE KIMMEL

FULL PROFESSORS WITH A PRIMARY APPOINTMENT IN ONCOLOGY

Ambinder, Richard Hematologic Malignancies	Gojo, Ivana Hematologic Malignancies	Small, Donald Pediatric Oncology
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Azad, Nilofer Cancer Immunology/GI Clinical	Hayward, Gary Viral Oncology	Stearns, Vered Women's Malignancies
Baylin, Stephen Cancer Biology	Jaffee, Elizabeth Cancer Immunology/GI Clinical	Sukumar, Saraswati Women's Malignancies
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Casero, Robert Cancer Biology	Klein, Alison Cancer Immunology/GI Clinical	Wagner-Johnston, Nina Hematologic Malignancies
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Remembering

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R. Robinson "Bricks" Baker
Hayden "Bud" Braine
Richard Humphries
Hugh Jewett
Edward Lewison
Fray Marshall
Michelle Rudek
Saul Sharkis
Philip Waalkes



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