funding discovery to defeat cancer
OUR MISSION:  
SAVE MORE LIVES  
by fueling the discovery and development of powerful immunotherapies for all types of cancer.

Founded in 1953, the Cancer Research Institute (CRI) is a 501(c)(3) nonprofit organization dedicated to funding laboratory and clinical research aimed at harnessing our immune system’s power to treat and potentially cure all cancers.

This work has led to a revolutionary new class of cancer treatments called immunotherapy, which today is giving millions of cancer patients a better chance at living longer.

Rikki Rockett  
immunotherapy patient and oral cancer survivor

In June 2015, Rikki visited his primary care doctor with a chronic sore throat. His doctor found a small malignant tumor at the base of his tongue. Nine rounds of chemotherapy and 37 sessions of radiation therapy followed. The tumor initially responded but returned three months later, spreading to his lymph nodes.

Rikki then enrolled in an immunotherapy clinical trial. He responded immediately. Just over two months into the trial, a scan revealed that his tumor had shrunk over 90 percent. Today Rikki is cancer-free, enjoys playing drums with his rock band, Poison, caring for his two children, planning his wedding, and practicing Brazilian jiu-jitsu.

Watch Rikki’s immunotherapy story at cancerresearch.org/rikki

I’m not the rock star. Clinical scientists are the rock stars.”
The world learned that James P. Allison, Ph.D., director of the Cancer Research Institute Scientific Advisory Council, had won the 2018 Nobel Prize in Physiology or Medicine before the scientist himself got the news.

It wasn’t until his son, Robert, tracked him down a couple hours later in his hotel at CRI’s immunotherapy conference in New York City that he learned about the important announcement.

In recent years, Allison has received plenty of accolades and glowing profiles in the media, and had many emotional meetings with members of the growing legion of grateful patients who are alive thanks to his discoveries. Even so, Allison, it seems, found it a little hard to believe that his work had finally won him science’s ultimate international honor.

But, of course, we at CRI weren’t surprised. Allison has always understood that the path to defeating cancer lies in basic science aimed at learning how the human immune system functions. He didn’t start out attempting to cure any disease. Rather he focused first on decoding the mysterious T cell and how it worked. It was only after he began to understand how these crucial players in the immune system operated that he considered how he might apply his insights to fighting cancer.

That’s been our approach at the Cancer Research Institute, too, and Allison’s scientific journey parallels those of others we have funded over the decades.

In this year’s report, we are showing this approach in action by highlighting some of the most exciting current developments in the field of cancer immunology—and then tracing their scientific roots to show how CRI and its generous donors have helped lay the foundation for the treatment successes of today as well as the lifesaving cancer immunotherapies of tomorrow.
The collective efforts of CRI’s international network of immunologists and physician-scientists span the spectrum of discovery, from inquiry into the basic components and mechanisms of our immune system to novel applications in science-driven clinical trials. This clinical work is enriched by sophisticated correlative studies designed to help us learn the most from each cancer patient. Linking lab and clinic in this way accelerates discovery and hastens delivery of effective treatments to the global community of cancer patients, which is predicted to exceed more than 20 million new cases annually by the end of the next decade.

As ever, we remain deeply grateful for the support of our donors, without whom we could not carry out this important work. It is a privilege to serve as stewards of their trust, and we remain committed to magnifying their impact through the expert-guided investment in science, operational efficiency, and effective management that has earned CRI the highest ratings from charity watchdog organizations. Every donation helps to fund scientific discovery that brings us closer to defeating this disease once and for all. Together, we are creating a Future Immune to Cancer™.

The revolution in cancer treatment that we at CRI have envisioned and worked toward for decades is finally here. Yet while we celebrate this validation of our vision and mission that originated more than 120 years ago in the pioneering work of Dr. William B. Coley, the “Father of Cancer Immunotherapy,” our eyes remain fixed on the horizon.
From Bench to Bedside: Jim Allison, Checkpoints, & Beyond

James Allison—Jim to most who know him—learned early about the ruthless and deadly reach of cancer. At 10, he held the hand of his mother, Constance, in tiny Alice, Texas, as she lay on her deathbed, her body riddled with tumors. By the time he was 15, cancer had also taken two of his uncles.
Even so, it was the lure of basic science—and exciting new developments in the then nascent field of immunology—that initially drew Allison to the field in the early 1970s. Back then, T cells had only recently been discovered. Allison was fascinated by the idea that the body had its own tiny soldiers capable of searching out and destroying invading bacteria, viruses, and other dangerous threats. “If they see something wrong, they just deal with it,” he would later tell an interviewer. “What could be cooler than that?”

Allison, like many at the time, was interested in the basic questions: what was it that turned these tiny cellular warriors on—and off? To find out, Allison began studying the tiny proteins on their surface known as “receptors.” Like a car, T cells have ignition switches, too. One of these is a protein called CD8. But because the body’s lymphocytes are such powerful, potentially destructive weapons, evolution has built in numerous fail-safes and other protections to prevent them from over-attacking. Activating T cells requires a second key to bind another receptor simultaneously. Allison’s first big contribution was to discover that receptor, known as CD28.

By 1992, Allison and the rest of the field realized there was still an important piece of the puzzle missing. Even when the right proteins bound to CD8 and CD28, T cells didn’t always attack. At other times, their attacks were short-lived, petering out quickly. Allison and others suspected that a third receptor might be involved, and the race was on to find it.

CRI was already pouring resources into the hunt. Things began to come into focus in the lab of Arlene Sharpe, M.D., Ph.D., at Harvard Medical School, where CRI postdoctoral fellow Frank Borriello, M.D., Ph.D., (1993–1996) was among those who helped engineer mice without a receptor called CTLA-4. Allison, Sharpe, and others had begun to suspect CTLA-4 played a role, but it was Sharpe, Borriello, and their collaborators who made the next key discovery—the one that would set up Allison’s ultimate triumph. CTLA-4, they showed, was not an “on” switch like CD8 and CD28—rather, it was an important “off” switch, a circuit breaker that prevented the body’s T cells from destroying healthy cells. Put another way, CTLA-4 was a molecular brake, the first of a whole new class of cellular safety switches called “checkpoints.”

For Borriello’s mice, the lack of these important receptors proved fatal. Without anything to check them, the T cells in the mice laid waste to healthy tissues and organs. Most of the mice died within weeks of their birth, devastated by massive autoimmune reactions.

To some, the findings immediately suggested the potential for drugs that worked on checkpoints to suppress the immune system, helping organ transplant patients or others suffering from autoimmune diseases. Allison, however, recognized another possible use: might targeting these new “checkpoints,” with a drug actually help T cells sustain an attack and defeat cancer?

One of Allison’s graduate students, Matthew Krummel, Ph.D., ICRI Investigator, 2004–2008 had already developed an antibody able to stick to a T cell’s CTLA-4 receptor, essentially jamming the off-switch. Allison instructed a postdoc to inject the antibody into mice riddled with tumors. The results, he would later recall, “were spectacular.” The tumors disappeared. Every single mouse survived.

CRI IRVINGTON POSTDOCTORAL FELLOWSHIP PROGRAM

2019 Fast Facts

• 31 new fellowship recipients
• $5.38 million awarded
• 60+ research papers published in top peer-reviewed journals

Did You Know?

• 1,450+ fellows funded since 1971
• 3x more citations of fellows’ published research than their peers
• 7x more likely than peers to obtain faculty positions

Supports laboratory research and furthers career development of promising young scientists working under the mentorship of leading immunologists.

Click here for a list of all 124 active postdoctoral fellows.
Human studies with Allison’s CTLA-4-blocking drug began around 2000 in 14 patients stricken with inoperable metastatic melanoma. After the trials began, three patients saw their tumors shrink and, miraculously, survived.

Sharon Belvin was a 20-something newlywed when doctors discovered melanoma in her lungs, liver, and brain. She was terminal when she signed up for a phase 2 clinical trial. By the time Allison met her in 2004, she’d been in remission a year. It was the first time he’d met a patient treated with his drug. At the meeting, everybody sobbed and hugged. A new era had begun.

The drug, manufactured by Bristol-Myers Squibb and marketed as Yervoy® (ipilimumab), received FDA approval in 2011 to treat metastatic melanoma. It was soon followed by other “checkpoint inhibitors,” a class of drugs now recognized as the most important advance in cancer treatment since chemotherapy.

Throughout this period, CRI funded a number of postdocs in Allison’s labs at Memorial Sloan Kettering Cancer Center and, later, MD Anderson Cancer Center. CRI also played a key role in supporting the research that followed.

Almost as soon as Allison, Sharpe, and others demonstrated the power of CTLA-4, the hunt was on for more checkpoints like it.

As those initial trials for ipilimumab got under way in New York City, down at the Emory University lab of Rafi Ahmed, Ph.D., two CRI postdoctoral fellows—E. John Wherry, Ph.D. (2000–2003) and David Masopust, Ph.D. (2002–2005)—were honing in on a second powerful checkpoint target called “PD-1” (for “programmed death-1”).

Many healthy cells express a protein known as “PD-L1” on their surface, which signals “don’t attack me” when it binds to the PD-1 receptor on T cells. Some cancers have evolved to protect themselves by also expressing PD-L1, tricking the immune system into ignoring them.

Ahmed, Masopust, and Wherry showed that blocking PD-1 could keep T cells in fighting shape and enable them to attack virus-infected cells. The approach was shown to work against cancer, too, spurring the development of a number of PD-1/PD-L1 checkpoint immunotherapies.

In 2014, three years after Yervoy’s groundbreaking approval, the FDA approved two PD-1 inhibitors—Merck’s Keytruda® (pembrolizumab) and BMS’s Opdivo® (nivolumab). Today, seven checkpoint inhibitors are FDA-approved for more than ten types of cancer, and nearly half of U.S. cancer patients are now eligible for them as part of their treatment.

Even as these breakthroughs have catalyzed the field, there is still much work to do. Fewer than one in five patients currently respond to checkpoint inhibitors. We know that we can—and must—do better than that. The fastest route lies in finding new combinations that can augment checkpoint inhibition—including standard treatments like chemotherapy or radiation, targeted therapies, or other drugs that act on the immune system.
SOME PATIENTS HAVE REMARKABLE RECOVERIES

In August 2015, former U.S. President Jimmy Carter announced he had metastatic melanoma that had spread to his liver and brain, and many assumed he was terminal. Carter’s doctors, however, bombarded his cancer with radiation. Then, as the damaged and dying cancer cells began to attract his immune system’s attention, they administered a PD-1 immunotherapy. In December, just three months after Carter first began receiving immunotherapy, the then-91-year-old found that all his tumors were gone.

“After immunotherapy... they didn’t find any cancer at all.”

Former U.S. President Jimmy Carter
Pancreatic cancer is the third leading cause of cancer deaths in the U.S., and seventh worldwide. Usually discovered at advanced stages, it is especially hard to treat. Fewer than one in ten patients with the most common form of pancreatic cancer survives beyond five years. It’s a dismal prognosis and a reason we chose to launch a clinical trial of promising immunotherapy combinations for these patients. Exciting interim trial results released earlier this year signal new hope for patients with pancreatic and other hard-to-treat cancers.
The clinical trial, nicknamed “PRINCE,” was designed by members of the CRI Anna-Maria Kellen Clinical Accelerator in collaboration with the Parker Institute for Cancer Immunotherapy (PICI), Apexigen, Bristol-Myers Squibb, and seven leading U.S. academic institutions. It blends two standard-of-care chemotherapies with a PD-1 inhibitor, building on the CRI-funded work of Ahmed, Masopust, Wherry, and others described previously. It also introduces a fourth drug that we have good reason to believe may interact powerfully with the others to elicit a potent immune response by targeting a molecule known as CD40.

Unlike checkpoints, which affect T cell activity, this CD40-targeting drug interacts with dendritic cells—important communicators of the immune system that alert our T cells to the presence of dangers like infection or cancer. Just as CRI played a role in funding the work of Allison and his collaborators working in T cells, CRI also has a long history of backing basic science aimed at understanding how dendritic cells and other antigen-presenting cells like them work.

Dendritic cells were discovered in the early 1970s by Rockefeller University’s Ralph Steinman, M.D., and CRI was an ardent supporter of his first efforts to apply this discovery to treating cancer. In addition to financing Steinman’s own work, CRI also backed some of his most prominent and productive early postdoctoral fellows. CRI fellow Jonathan Austyn, D.Phil. (1982–1983) was one of the first. Together, Austyn and Steinman showed definitively that dendritic cells are central to T cell expansion. Soon after, CRI fellow Nina Bhardwaj, M.D., Ph.D. (1985–1988), now a CRI Clinical Accelerator investigator at the Icahn School of Medicine at Mount Sinai, helped Steinman show how this process happens in two phases: first, dendritic cells present antigen protein fragments to T cells—essentially putting the body’s cellular assassins onto the scent of their new quarry; second, these T cells mobilize other immune cells to attack. Later, two other CRI fellows, William Heath, Ph.D., (1990–1993) and Kang Liu, Ph.D., (2001–2005), helped Steinman demonstrate that the CD40 protein on the surface of dendritic cells and other antigen-presenting cells can help flag down killer T cells and alert them to the presence of invading pathogens.

Our PRINCE pancreatic cancer trial, which draws upon the work of Steinman and his collaborators, is being led by Robert H. Vonderheide, M.D., D.Phil., a CRI Clinical Accelerator investigator at the University of Pennsylvania. In preclinical studies, Vonderheide demonstrated that targeting CD40 in the presence of dying cancer cells vastly increases dendritic cells’ activation of T cells. Now he and other investigators in the PRINCE study are harnessing this insight to benefit human patients.

First, patients are treated with chemotherapy to rapidly kill some of the tumor, causing those dying cancer cells to release “telltale” antigens that betray the tumor’s presence. Next, patients receive the CD40-targeting drug to help their dendritic cells mobilize T cells. Then, finally, a checkpoint inhibitor is given to help the patients’ T cells sustain their attack on the remaining cancer cells.

Early results from the study are very promising. The treatment shrank tumors in 20 out of 24 evaluable patients. Excitingly, more than half the patients receiving
the combination of chemotherapy and immunotherapy had their tumors shrink significantly—more than 30 percent—indicating that this combination therapy may be twice as effective as giving chemotherapy alone.

It’s great news for patients facing an otherwise grim fate. The most useful long-term data, however, may actually arise from the four patients that have not yet responded. To learn why they haven’t responded, CRI is funding a parallel effort that analyzes biomarkers, immune activity, tumor DNA, and more to unveil insights that can be applied well beyond this specific trial or this type of cancer.

The PRINCE trial is just one of many promising CRI-funded efforts currently under way that have grown out of the seminal contributions of Steinman, Austyn, Bhardwaj, and other CRI-supported scientists in this area.

Earlier this year, CRI CLIP investigator Joshua D. Brody, M.D. (2015–2017) published a groundbreaking paper in Nature Medicine sharing results from a small clinical trial in which Brody and his collaborators took aim at indolent non-Hodgkin lymphoma (iNHL), an incurable form of cancer that has so far proved poorly responsive to checkpoint blockade immunotherapy. Brody showed that patients’ T cells aren’t to blame. Rather, the challenge lies in triggering the immune attack to begin in the first place—a challenge that dendritic cells might overcome with some assistance. Brody and his team developed a vaccine containing a cocktail of proteins capable of activating dendritic cells. Patients were first treated with radiation to kill some of their tumor, and then were given the vaccine. Initial results are exciting—previously nonresponding patients became newly responsive to PD-1 blockade, prompting a follow-up trial of the combined therapy. A number of these patients are now in remission.

While working to extend the effectiveness of today’s immunotherapies, CRI is also building on this research in cervical, ovarian, and prostate cancers, funding trials testing new combinations of PD-1/PD-L1 immunotherapies given with drugs called TLR agonists that help activate dendritic cells. Last October, in a seminal Nature paper, former CRI fellow (2012–2014) and current CLIP investigator (2017–2019) Juan R. Cubillos-Ruiz, Ph.D., along with his CRI fellow Chang-Suk Chae, Ph.D. (2017–2019) at Weill Cornell Medicine described how ovarian tumors can sabotage T cells by starving them of fuel. They also showed in mice that blocking the pathway involved restored T cell activity and strengthened their attacks on cancer. This exciting work suggests that drugs targeting this pathway could be a promising new approach to treating ovarian cancer patients.

While working to extend the effectiveness of today’s immunotherapies, CRI remains committed to its long-term mission of supporting the basic science that enables future innovation leading to new treatment options for more cancer patients.
Laying the Foundation for the Future

One of the most promising new areas of exploration in cancer immunotherapy is the human microbiome—the vast, largely uncharted territory of microorganisms that colonize our bodies, primarily in our digestive tract. CRI scientists are studying how these bacteria influence cancer development as well as responses or resistance to treatment in order to improve outcomes for more patients.
In 2009, Cynthia L. Sears, M.D., an infectious disease specialist at Johns Hopkins, offered up an eyebrow-raising suggestion in the pages of *Nature Medicine*: certain strains of a bacterium commonly found in the human colon can trigger an autoimmune response that results in inflammation leading to colon cancer, the second leading cause of cancer deaths in the U.S.

The revelation suggested new research vistas that hold promise for treating a disease that kills 50,000 Americans each year. She and collaborators including longtime CRI grantee and Scientific Advisory Council member Drew M. Pardoll, Ph.D., later characterized the specific chain of immune-related events leading to colon cancer.

Funded in part with a CRI Impact Grant, Sears has since emerged as a leader in what has become one of the hottest new areas of cancer immunology. Understanding the interaction between the gut microbiome and the human immune system holds vast potential not just to help prevent colon cancer, but also, it turns out, to improve the effectiveness of treatments for other cancers and entirely different diseases.

Sears isn’t the only CRI scientist currently exploring this relationship in search of potential cures. At the University of Texas at Austin, CRI Technology Impact Award recipient Hyun Jung Kim, Ph.D., is building a colorectal cancer on-a-chip device capable of mimicking the three-dimensional tumor microenvironment—where colorectal cancer cells, gut bacteria, and immune cells interact, opening up new vistas in technology-assisted research.

In another exciting area of innovation, Ashish Kulkarni, Ph.D., of the University of Massachusetts Amherst, is using a first-of-its-kind nanomaterial to develop a new technology that can efficiently treat tumors—and enables tracking the immune responses against them in real-time.

**IMPACT GRANTS**

Support research projects and initiatives aimed at advancing defined scientific and technological goals and addressing major challenges that would otherwise limit progress in cancer immunotherapy research and drug development.

**2019 Fast Facts**

- 5 new Impact grants
- $929,000 awarded
- Funded first-of-its-kind biomarker study in metastatic triple-negative breast cancer

**Did You Know?**

CRI partners with other nonprofits to make the greatest impact:

- Breast Cancer Research Foundation
- Fibrolamellar Cancer Foundation
- Fight Colorectal Cancer
- Focused Ultrasound Foundation
- Israel Cancer Research Fund
- PICI

Click here for a list of all 13 active Impact Grants.

**Today at CRI we are working to identify and fund exceptional scientists—the next Jim Allison and Ralph Steinman’s—whose unorthodox yet sound research ideas may take cancer immunotherapy to the next level.**

In pursuit of this goal, in 2019 we launched the CRI Lloyd J. Old STAR Program (Scientists Taking Risks), which empowers dynamic and exceptionally talented mid-career scientists to advance disruptive, high-risk, high-reward research ideas with potential to transform cancer treatment.

The first five STARs, which we announced in June, are Yvonne Y. Chen, Ph.D., at the University of California, Los Angeles; Amanda W. Lund, Ph.D., at Oregon Health & Science University; Alexander Marson, M.D., Ph.D., at the University of California, San Francisco; Andrea Schieflinger, Ph.D., at Memorial Sloan Kettering Cancer Center; and Gregory F. Sonnenberg, Ph.D., at Weill Cornell Medicine.

These STARs are finding innovative ways to improve T cell function, exploit the microbiome’s impact on the immune response, and develop the yet-untapped therapeutic potential of the human lymphatic system. The goal of their work is to improve outcomes for more cancer patients treated with immunotherapy.

**TECHNOLOGY IMPACT AWARD**

Provides seed funding to encourage collaboration between technology developers and clinical cancer immunologists to create novel platform technologies that can enable physicianscientists to generate deeper insights into the mechanisms of action of cancer immunotherapies.

**2019 Fast Facts**

- 5 new Tech Impact Awards
- $1 million in new grants

**Did You Know?**

Key areas of technology innovation to advance cancer immunotherapy research include:

- Bioinformatics tools and methodology
- Computer models of biological systems
- Immunotherapy target discovery
- Real-time imaging of patient response to immunotherapy
- Tumor profiling to guide treatment

Click here for a list of all 9 active Technology Impact Awards.
LLOYD J. OLD STAR PROGRAM (Scientists Taking Risks)

STAR grants provide $1.25 million over five years to exceptional mid-career scientists, giving a degree of flexibility and freedom for them to explore out-of-the-box, disruptive avenues of research. Candidates selected for this award are expected to be future “stars” in the field of cancer immunology.

2019 Fast Facts

- 5 inaugural Lloyd J. Old STARs named
- $6.25 million awarded
- Honors the memory of Dr. Lloyd J. Old, CRI’s founding scientific and medical director, who is recognized as the “Father of Modern Tumor Immunology”

Did You Know?

- 3 STARs have published papers in Nature
- 2 have received the New Innovator Award from the National Institutes of Health
- 1 nominated as a Wired magazine “Icon of the Future”

Click here to see a list of all 5 active STARs.

Not all the important work in the fight against cancer occurs in the lab or clinic. At CRI, we are also committed to finding ways to raise public awareness while also bringing scientists, patients, caregivers, advocates, and health care professionals together to make new connections, share new ideas, and inspire one another.
Last October, CRI cohosted with our U.S. and European nonprofit partners the Fifth CRI-CIMT-EATI-AACR International Cancer Immunotherapy Conference in New York City. More than 1,400 scientists attended to discuss the current research and clinical trial landscape and what lies beyond, with an emphasis on basic biology, immunological mechanisms, and new scientific discovery. These fundamental studies are “the essential grist that will enable the field to move forward in its quest to develop personalized immunotherapy that benefits more cancer patients,” as Jill O’Donnell-Tormey, Ph.D., CRI’s CEO and director of scientific affairs, put succinctly during her opening remarks.

Toward the goal of extending immunotherapy’s benefits to more patients, CRI convened the first meeting of the “Genomics in Immunotherapy Think Tank.” At the two-day gathering, which took place in August in New York City, thought leaders from academia and industry along with other stakeholders met to discuss the current and emerging genomic biomarkers landscape in immunotherapy. The think tank aims to define strategies to speed scientific discovery and clinical adoption of biomarker-based treatment personalization, improving care and leading to better patient outcomes. The group plans to reconvene in 2020 to discuss how to harness ongoing developments in genomics and biomarkers to advance cancer immunotherapy.

In June, CRI summoned scientists, health care investment analysts, and the media to New York City for the inaugural “Immuno-Oncology: A Future Look,” a broad discussion of what lies ahead in cancer immunotherapy research and drug development. The event offered an opportunity to meet and hear from leading scientists in both academia and industry communicating the near-term opportunities and challenges facing the field.

To educate and forge links among patients, caregivers, advocates, and the physician-scientists and health care experts working to help them, CRI hosted a series of free Immunotherapy Patient Summits at leading academic research and treatment centers throughout the U.S. These half-day events are designed to explain in easy-to-understand terms the science underlying cancer immunotherapy and to discuss the latest advances in patient treatment as well as the importance of clinical trials.

All the while, our website continues to serve as a central repository for expert-vetted educational and informational resources aimed at empowering patients, caregivers, and others to stay current on the latest developments in this fast-moving field. This year, our Answer to Cancer Patient Education Program received more than 1.5 million views. These include our Cancer Immunotherapy and You Webinar Series, Ask a Scientist Videos, Immunotherapy Patient Stories, and Immunotherapy Clinical Trial Finder. We are grateful for the generous support of our sponsors, who enable us to create and deliver this programming without diverting resources from our donor-funded research programs.

As we reflect on this exciting past year and the long path of scientific discovery that led to the Nobel ceremony in Stockholm, it’s clear we need the support of our donors now as much as ever. Cancer is a ruthless and relentless foe. There is plenty more work to do, too. If we all work together, with time and determination, we can prevail over this deadly disease.

The army that will ultimately defeat cancer already exists in the body. We just need to find the right ways to unleash it.
Cancer Immunotherapy Month

Our seventh annual Cancer Immunotherapy Month in June featured educational videos, social media awareness campaigns, and fundraising and employee engagement events designed to draw attention to and support for cancer immunotherapy research.

Hundreds of people from around the globe joined in Wear White Day on June 14, donning white T-shirts or lab coats in celebration of the power of science to create a Future Immune to Cancer™. Additionally, over 20 corporate partners hosted Wear White Day events.

Awards & Honors

Each year, the Cancer Research Institute honors individuals and organizations that have made important contributions to the field of cancer immunotherapy.

THE WILLIAM B. COLEY AWARD FOR DISTINGUISHED RESEARCH IN BASIC IMMUNOLOGY

Miriam Merad, M.D., Ph.D., Icahn School of Medicine at Mount Sinai, in recognition of her important contributions relating to the biology of important immune cells known as macrophages and dendritic cells.

THE WILLIAM B. COLEY AWARD FOR DISTINGUISHED RESEARCH IN TUMOR IMMUNOLOGY

Padmanee Sharma, M.D., Ph.D., The University of Texas MD Anderson Cancer Center, in recognition of her discovery of the importance of the co-stimulatory ICOS pathway and the pioneering role she played in the use of immune checkpoint therapy prior to surgery.

THE FREDERICK W. ALT AWARD FOR NEW DISCOVERIES IN IMMUNOLOGY

Boris Reizis, Ph.D., NYU Langone Health, for his contributions that advanced our understanding of dendritic cells, the key sentinel cells of the immune system.

THE OLIVER R. GRACE AWARD FOR DISTINGUISHED SERVICE IN ADVANCING CANCER RESEARCH

George D. Yancopoulos, M.D., Ph.D., president and chief scientific officer, Regeneron, in recognition of his company’s success in developing life-transforming medicines a variety of hard-to-treat cancer types.

Perri Peltz, journalist and filmmaker, in recognition of her passion for using broadcast media to spark public conversation about the latest advances in medicine, including cancer immunotherapy, answering a vital need to educate patients and their caregivers about today’s treatment options.

THE AACR-CRI LLOYD J. OLD AWARD IN CANCER IMMUNOTHERAPY

Cornelis J. M. Melief, M.D., Ph.D., Leiden University Medical Center and ISA Pharmaceuticals, for his discovery of the mechanisms of immune recognition of cancer antigens and activation of antitumor responses, and for his role in the development of innovative vaccine-based immunotherapies against human papillomavirus (HPV)-associated cancers.
Funding Excellent Science That Gets Results

In fiscal year 2019 (July 1, 2018, to June 30, 2019), the Cancer Research Institute awarded $36.4 million for cancer immunology research and immunotherapy clinical development.

An asterisk denotes grants newly awarded in fiscal year 2019. All others are active grants awarded in prior years.

**CRI IRVINGTON POSTDOCTORAL FELLOWSHIP PROGRAM**

Mohamed Abdel Hakeem, Ph.D.
University of Pennsylvania,
Philadelphia, PA
* Reprogramming of exhausted T lymphocytes following cure of chronic viral infection: Implications for immunotherapy

Oscar A. Aguilar, Ph.D.
University of California, San Francisco, San Francisco, CA
* The role of Fcγ receptors in NK-cell-mediated immunity against cancer and virus infection

Sadeem Ahmad, Ph.D.
Boston Children’s Hospital, Boston, MA
* Non-canonical activation of the innate immune receptor MDA5 in immune disorder and cancer therapy

Zhaqing Ba, Ph.D.
Boston Children’s Hospital, Boston, MA
* Mechanisms that mediate intra-locus and inter-locus regulation of VDJ recombination at immunoglobulin light chain loci

Jennifer Kaoru Bando, Ph.D.
Washington University School of Medicine, St. Louis, MO
* Immune modulation of dormant skin tumor development and persistence

Kevin C. Barry, Ph.D.
University of California, San Francisco, San Francisco, CA
* Interrogation of immune responses to fibrolamellar hepatocellular carcinoma

Zhaoqing Ba, Ph.D.
Boston Children’s Hospital, Boston, MA
* Understanding the fundamental processes of T cell immunity through high precision 3D dynamic imaging of antigen recognition

Robertson Foundation Fellow

Christian Bassi, Ph.D.
University Health Network, Toronto, Canada
* Role of HMGBl in breast cancer resistance to chemotherapy

Simone Becattini, Ph.D.
Memorial Sloan Kettering Cancer Center, New York, NY
* Exploring colonization resistance against Listeria monocytogenes in cancer patients

Henrique Borges da Silva, Ph.D.
University of Minnesota, Minneapolis, MN
* Harnessing CD8+ T cell antitumor responses by manipulating extracellular ATP signaling

Paul C. Shiverick Fellow

En Cai, Ph.D.
University of California, San Francisco, San Francisco, CA
* Mechanism and therapeutic potential of PTEN-regulated macrophages in glioblastoma

Robertson Foundation Fellow

Adam N. R. Cartwright, Ph.D.
Dana-Farber Cancer Institute, Boston, MA
* Systematic discovery of combination immunotherapy targets

Chang-Suk Chae, Ph.D.
Weill Cornell Medicine, New York, NY
* Incessant ER stress responses promote dendritic cell dysfunction in ovarian cancer

Dr. Keith Landesman Memorial Fellow

Anur R. Chavan, Ph.D.*
Stanford University, Stanford, CA
* Elucidation of feedback and other mechanisms that can elicit cytotoxic T cell responses following anti-PD1 immunotherapy

Robertson Foundation Fellow

Peiwen Chen, Ph.D.
The University of Texas MD Anderson Cancer Center, Houston, TX
* Systematic identification of melanoma-specific antigens that can elicit CD8+ T cell responses in cancer

Michael G. Constantinides, Ph.D.
The University of Texas MD Anderson Cancer Center, Houston, TX
* Systematic discovery of combination immunotherapy targets

Victor Samuel Cortez, Ph.D.*
University of California San Diego, La Jolla, CA
* Reprogramming macrophage phenotypes during immunosurveillance and neoplastic progression

Sofia L. Novais de Oliveira, Ph.D.
Albert Einstein College of Medicine, Madison, WI
* The role of the innate immune system in fibrolamellar hepatocellular carcinoma: FH2L as a putative molecular target

Carina C. de Oliveira Mann, Ph.D.
Ludwig-Maximilians-Universität Münchén, Munich, Germany
* cGAS activation mechanism by endogenous DNA species

Zhou Deng, Ph.D.
Memorial Sloan Kettering Cancer Center, New York, NY
* Roles of macrophage subsets in tumorigenesis

Pranay Dogra, Ph.D.
Columbia University Medical Center, New York, NY
* Impact of tissue location on antitumor activity of human NK cells

Sascha H. Duttke, Ph.D.
University of California San Diego, La Jolla, CA
* Reprogramming macrophage phenotypes during immunosurveillance and neoplastic progression

Shlomo Elias, M.D., Ph.D.*
Memorial Sloan Kettering Cancer Center, New York, NY
* Cooperation between the transcription factor Foxp3 and its ancestor Foxp in Treg cells

**CANCER RESEARCH INSTITUTE 2019 ANNUAL REPORT**

**Foundation Fellow**

Robertson Foundation Fellow

**CRI Fibrolamellar Cancer Foundation Fellow**

**CRI IRVINGTON POSTDOCTORAL FELLOWSHIP PROGRAM**

**Dr. Keith Landesman Memorial Fellow**

**Samuel and Ruth Engelberg Fellow**

**T cell responses in cancer**

**Robertson Foundation Fellow**

**Haiqiang Dai, Ph.D.**
University Health Network, Toronto, Canada
* Dissecting the evolutionary origin of lymphocytes

**Dr. Keith Landesman Memorial Fellow**

**Robertson Foundation Fellow**

**Simone Becattini, Ph.D.**
Memorial Sloan Kettering Cancer Center, New York, NY
* Role of the innate immune system in fibrolamellar hepatocellular carcinoma

**CRI IRVINGTON POSTDOCTORAL FELLOWSHIP PROGRAM**

**Funding Excellent Science That Gets Results**

In fiscal year 2019 (July 1, 2018, to June 30, 2019), the Cancer Research Institute awarded $36.4 million for cancer immunology research and immunotherapy clinical development.
Neris Michel Enamorado Escalona, Ph.D.*
National Institute of Allergy and Infectious Diseases, NIH, Bethesda, MD
Dissecting how commensal-specific immune response regulates metastasis development

Jonatan Ersching, Ph.D.
The Rockefeller University, New York, NY
Molecular control of B cell proliferation in germinal centers

The Hearst Foundations Fellow

Yinnian Feng, Ph.D.*
The Rockefeller University, New York, NY
High-throughput mapping of the sequence- and force-dependent landscape of T cell activation

Timothy Fessenden, Ph.D.*
Massachusetts Institute of Technology, Cambridge, MA
Imaging and controlling tumor-infiltrating dendritic cell behaviors

Andrew I. Flyak, Ph.D.
California Institute of Technology, Pasadena, CA
The structural basis of HCV neutralization by broadly neutralizing human antibodies

Lauren A. Fong, Ph.D.
University of Pennsylvania, Philadelphia, PA
Defining the transcriptomic and epigenetic reprogramming of human tumor-infiltrating CD8 T cells after PD-1 blockade

The Mark Foundation for Cancer Research Fellow

Ariella Glasner, Ph.D.
Memorial Sloan Kettering Cancer Center, New York, NY
A study of mechanisms governing Foamy3-dependent and -independent gene expression in regulatory T cells using evolutionary distant mice

Kevin Andrew U. Gonzales, Ph.D.*
The Rockefeller University, New York, NY
Dissecting the stem cell and immune roots of the tumorigenicity of wounds

Carson Family Fellow

Siyi Gu, Ph.D.*
University of California San Diego, La Jolla, CA
Molecular mechanisms of C-C chemokine receptor 5 ligand-biased signaling

Claudia Han, Ph.D.
University of California San Diego, La Jolla, CA
Epigenetic modulation of microglia function in homeostasis and gliomas

Pavel Hanc, Ph.D.
Harvard Medical School, Boston, MA
Investigating the neuroimmune interaction between nociceptive neurons and dendritic cells

Harald Hartweger, Ph.D.
The Rockefeller University, New York, NY
The effect of replicative stresses on the genesis of chromosome translocations

Rogelio Antonio Hernandez-Lopez, Ph.D.
University of California, San Francisco, CA
Engineering antigen density sensors for T cell immunotherapy

Mercer Fellow

Michael J. Hogan, Ph.D.*
Children's Hospital of Philadelphia, Philadelphia, PA
Endogenous MHCII presentation. Cell biology and functional consequences

Bristol-Myers Squibb Fellow

Jun Young Hong, Ph.D.
Yale University, New Haven, CT
Developmental programming of T cell immunity and cancer susceptibility

Bristol-Myers Squibb Fellow

Jun Hu, Ph.D.
Boston Children's Hospital, Boston, MA
Targeting gadestim D for potential therapeutic interventions

Margaret Dammann Eisner Fellow

Ranit Kedmi, Ph.D.
New York University Medical Center, New York, NY
Antigen presenting cells as coordinators of T cell responses to gut microbiota

Robertson Foundation Fellow

Cheng-Sheng Lee, Ph.D.
Boston Children’s Hospital, Boston, MA
Therapeutic implications of altered epigenetics and DNA damage responses in IDH2-mutated hematologic diseases

Chung-Chieh Hsu, Ph.D.
Yale University, New Haven, CT
Regulation of translation by the interferon-induced antiviral protein viperin

Bristol-Myers Squibb Fellow

Justin M. Jenson, Ph.D.*
The University of Texas Southwestern Medical Center, Dallas, TX
Mechanisms whereby liquid phase separation of cGAS activates innate immune signaling

Livnat Jerby, Ph.D.
Broad Institute of MIT and Harvard, Cambridge, MA
Integrating CRISPR with single-cell RNA-sequencing to map the underlying circuits of immune evasion mechanisms in melanoma

The Hearst Foundations Fellow

Kazuki Kato, Ph.D.*
Boston Children's Hospital, Boston, MA
Molecular mechanism of auto-immune regulator

Bristol-Myers Squibb Fellow

Marc Joseph Lajoie, Ph.D.
University of Washington, Seattle, WA
Protein nanoparticles to elicit defined T cell response against cancer cells

Colette M. Lau, Ph.D.*
Memorial Sloan Kettering Cancer Center, New York, NY
Investigating the role of DNA methylation on NK cell-mediated tumor immunity

Carson Family Fellow

Julie Leca, Ph.D.
University Health Network, Toronto, Canada
Therapeutic implications of altered epigenetics and DNA damage responses in IDH2-mutated hematologic diseases

Robertson Foundation Fellow

Bruce M. Li, Ph.D.
The University of Texas Southwestern Medical Center, Dallas, TX
Manipulation of T-cell receptor signaling by phase separation of signaling molecules

Marcos L. Lopes, Ph.D.*
University of California, San Diego, CA
Deciphering the role of lncRNAs in CD8+ T cell differentiation

Srinivasan Foundation Fellow

CANCER RESEARCH INSTITUTE 2019 ANNUAL REPORT

37
control of metabolism and players in the immunological of adipose-tissue Tregs: Important Differentiation and accumulation

Harvard Medical School, Boston, MA

elements in CD8+ T cells

A global map of mRNA regulatory

San Francisco, CA

University of California, San Francisco, Aileen Li, Ph.D.

microenvironment

Synthetic modulation of the tumor

San Francisco, CA

University of California, San Francisco, Adam J. Litterman, Ph.D.

anti-inflammatory lipids

Chemical biology of

Qiang Li, Ph.D.

innate immune sensing of self-DNA

Lloyd J. Old Fellow

Rutger David Luteijn, Ph.D.

on the IgH locus and off-target

Baltimore, MD

Metabolic control of epigenetic states

Salk Institute, La Jolla, CA

Shixin Ma, Ph.D.*

LSC and its G protein coupling

Duncan Robert McKenzie, Ph.D.

the molecular basis of epidermal

The Francis Crick Institute, London, United Kingdom

Alejandra Mendoza, Ph.D.

Harvard T.H. Chan School of Public Health, Boston, MA

Identifying novel effectors of the gut microbiota that modulate cancer cells killing by CD8+ T cells using functional metagenomics

Geoffrey Lovely, Ph.D.

National Institute on Aging, Baltimore, MD

Watching RAG recombinase assembly on the IgH locus and off-target assembly in live pro-B cells

Rutger David Luteijn, Ph.D.

University of California, Berkeley, CA

Inflammatory pathways in senescence-induced tumor formation

Shixin Ma, Ph.D.*

Salk Institute, La Jolla, CA

Metabolic control of epigenetic states that drive CD8+ T cell exhaustion and anti-tumor immunity

Murad R. Mamedov, Ph.D.*

University of California, San Francisco, CA

Mapping T cell genetic networks and cancer ligands

Duncan Robert McKenzie, Ph.D.

San Francisco, CA

University of California, San Francisco, Aileen Li, Ph.D.

Role of ‘non-immune’ functions of regulatory T cells in tissue homeostasis and cancer development

Bristol-Myers Squibb Fellow

Ka Ho Stephen Mok, Ph.D.

The University of Texas MD Anderson Cancer Center, Houston, TX

Effects of anti-CTLA-4 and anti-PD-1 on memory T-cell differentiation

Martina Molgora, Ph.D.*

Washington University School of Medicine, St. Louis, MO

Impact of Natural Killer cell recognition of growth factors on tumor immune surveillance

Lloyd J. Old Fellow

Adriana M. Mujal, Ph.D.*

Memorial Sloan Kettering Cancer Center, New York, NY

Investigating post-transcriptional regulation of antitumor NK cells

Amgen Fellow

Hidetoshi Nakagawa, M.D., Ph.D.

Dana-Farber Cancer Institute, Boston, MA

Helios, Treg stability and cancer immunotherapy

Kristof Nolan, Ph.D.

University of Chicago, Chicago, IL

Structure and function of human leukocyte antigen-F (HLA-F) in gynecologic cancers

Valerie Phoebe O’Brien, Ph.D.

Fred Hutchinson Cancer Research Center, Seattle, WA

Assessing helicobacter pylori-mediated chronic inflammation and its contributions to stomach cancer progression

Monica M. Olcina, Ph.D.

University of California, Berkeley, CA

Reprogramming the tumor microenvironment to improve immunotherapy of glioblastoma

Dr. Keith Landesman Memorial Fellow

Pamela C. Rosato, Ph.D.

University of Minnesota, Minneapolis, MN

Harnessing tissue resident memory T cells to combat solid tumors

Nathan Roy, Ph.D.

Children’s Hospital of Philadelphia, Philadelphia, PA

Modulation of T cell trafficking by Crk adapter proteins

Adam J. Litterman, Ph.D.

University of California, San Francisco, San Francisco, CA

A global map of mRNA regulatory elements in CD8+ T cells

Dan Liu, Ph.D.

University of California, San Francisco, San Francisco, CA

LSC and its G protein coupling signaling as regulators of dendritic cell maintenance and obesity-associated cancer

Shun Li, Ph.D.

Memorial Sloan Kettering Cancer Center, New York, NY

Anti-tumor immunity unleashed by innate immune sensing of self-DNA

Lloyd J. Old Fellow

Qiang Li, Ph.D.

The Rockefeller University, New York, NY

Chemical biology of anti-inflammatory lipids

Aileen Li, Ph.D.

University of California, San Francisco, San Francisco, CA

Synthetic modulation of the tumor microenvironment

Merck Fellow

Adam J. Litterman, Ph.D.

University of California, San Francisco, San Francisco, CA

A global map of mRNA regulatory elements in CD8+ T cells

Deng Pan, M.D., Ph.D.

Dana-Farber Cancer Institute, Boston, MA

Systematic discovery of immune modulators in tumor cells

Robertson Foundation Fellow

Christophe Pedros, Ph.D.

La Jolla Institute for Immunology, La Jolla, CA

Control of regulatory T cell function by protein kinase C-ε (PKCε): A novel target for cancer immunotherapy

Justin S. A. Perry, Ph.D.

University of Virginia Health System, Charlottesville, VA

Regulation of phagocyte physiology during tumor cell clearance

The Mark Foundation for Cancer Research Fellow

Kristof Nolan, Ph.D.

The Francis Crick Institute, London, United Kingdom

Systematic discovery of immune

Robertson Foundation Fellow

Padmini Sushila Pillai, Ph.D.

Massachusetts Institute of Technology, Cambridge, MA

Oral delivery of inflammation-targeting resolvin nanoparticles to treat IBD

Amanda Poissonnier, Ph.D.*

Oregon Health & Science University, Portland, OR

Relieving immune suppressive pathways in breast cancer to improve outcomes

Dr. Keith Landesman Memorial Fellow

Jun Ren, Ph.D.*

Massachusetts General Hospital, Boston, MA

Reprogramming the tumor microenvironment to improve immunotherapy of glioblastoma

Dr. Keith Landesman Memorial Fellow

Pamela C. Rosato, Ph.D.

University of Minnesota, Minneapolis, MN

Harnessing tissue resident memory T cells to combat solid tumors

Nathan Roy, Ph.D.

Children’s Hospital of Philadelphia, Philadelphia, PA

Modulation of T cell trafficking by Crk adapter proteins
Megan K. Ruhlman, Ph.D.
University of California, San Francisco, CA
Mechanisms of peripheral self-tolerance contribute to immune tolerance to cancer

Martina Sassone-Corsi, Ph.D.
Harvard Medical School, Boston, MA
Identifying bacterial molecules that induce gut immune responses and characterizing their protective potential against colitis-associated cancer.

Emily K. Schutsky, Ph.D.*
University of Washington, Seattle, WA
Elucidating the role of the damage response protein DNA-dependent protein kinase in innate immunity

Hyungseok Seo, Ph.D.
La Jolla Institute for Immunology, La Jolla, CA
Analysis of NFAT and Nr4a-mediated epigenetic reprogramming of tumor-infiltrating immune cell exhaustion

Donald J. Gogel Fellow

Nisarg J. Shah, Ph.D.
Harvard Medical School, Boston, MA
Designing a synthetic bone marrow niche to overcome immunodeficiency

Gould Family Foundation Fellow

Avishai Shenmesh, Ph.D.
University of California, San Francisco, CA
Engineering CAR NK cells for antigen-dependent autocrine expansion

Chen Shen, Ph.D.*
Boston Children’s Hospital, Boston, MA
dsRNA-induced NLRP6-mediated innate immune signaling through liquid-liquid phase separation

Kevin Michael Sullivan, M.D.
University of Washington, Seattle, WA
T cell immunotherapy in fibrolamellar cancer

CRI Fibrolamellar Cancer Foundation Fellow

Boyoung Shin, Ph.D.*
California Institute of Technology, Pasadena, CA
The molecular mechanisms of Runx transcription factors in early thymic T cell development

Shivani Srivastava, Ph.D.
Fred Hutchinson Cancer Research Center, Seattle, WA
An autophagous solid tumor model to evaluate strategies for enhancing CAR-T cell therapy

Elisabeth M. Steinert, Ph.D.
Northwestern University, Chicago, IL
Mitochondrial respiration in CD8 T cell-mediated immune responses to solid tumors

Meredith L. Stone, Ph.D.*
University of Pennsylvania, Philadelphia, PA
A role for the liver microenvironment in cancer immunosurveillance

Sanjiv K. Sethi and Ruth Engelberg Fellow

Lin Tian, Ph.D.*
Memorial Sloan Kettering Cancer Center, New York, NY
Dissecting extracellular matrix-mediated immune evasion of HER2+ breast cancer brain metastasis

Kevin R. Johnson Fellow

Yuan-Li Tsai, Ph.D.*
University of California, San Francisco, CA
Overcoming immunosuppression by selectively targeting suppressor of T cell receptor signaling in T cells

Dana-Farber Cancer Institute, Boston, MA

Qian Yin, Ph.D.
Stanford University, Stanford, CA
Overcoming immunosuppression through targeting suppressor of T cell receptor signaling in T cells

Yen-Chih Wang, Ph.D.
The Rockefeller University, New York, NY
Chemical biology of microbiota protection against gastrointestinal cancer

Guangchuan Wang, Ph.D.
Yale University, New Haven, CT
Genetic dissection of PD-1 pathway immune checkpoint blockade in liver cancer

Alexandra M. Whiteley, Ph.D.
Harvard Medical School, San Francisco, CA
The role of Ubiquitin-1 in BCR-driven lymphoma proliferation

Lloyd J. Old Fellow

Isha Yaffe, Ph.D.
Weizmann Institute of Science, Rehovot, Israel
Single-cell analysis of the tumor-immune ecosystem in human cancers

Ryan A. Zander, Ph.D.
Versiti Wisconsin, Inc., Milwaukee, WI
Identification of potent IL-21-producing T helper cell population that sustains cytotoxic T cell population that sustains cytotoxic T cell response during chronic viral infection and tumorigenesis

Ying Zhang, Ph.D.
Boston Children’s Hospital, Boston, MA
Enhancing immunotherapy for triple-negative and HER2+ breast cancer with EpCAM aptamer-siRNA mediated gene knockdown

CANCER RESEARCH INSTITUTE 2019 ANNUAL REPORT
Robert M. Prins, Ph.D.
University of California, Los Angeles, Los Angeles, CA
Elevated TIL accumulation, with clonal TCR expansion and inflammatory tumor microenvironment, predicts clinical benefit of PD-1 blockade in patients with recurrent glioblastoma

Wade F. B. Thompson CLIP Investigator

Mark P. Rubinstein, Ph.D.
Medical University of South Carolina, Charleston, SC
Generating human tumor-reactive T cells with high levels of IL-2Ra for adoptive T cell therapy

Vanja Sisirak, Ph.D.
University of Bordeaux, Bordeaux, France
In vivo study of mechanisms that regulate tumor-derived DNA immunogenicity during the process of cancer immunosurveillance

Craig L. Slingluff Jr., M.D.
University of Virginia Health System, Charlottesville, VA
Modulating host-microbiota interactions to improve cancer immunotherapies

Manuel Valiente, Ph.D.
Fundacion Centro Nacional De Investigaciones Oncologicas Carlos III, Madrid, Spain
Brain-specific strategies to improve responses to immunotherapy

Jose A. Villadangos, Ph.D.
The University of Melbourne, Melbourne, Australia
Characterization and prevention of “Stunning,” a cytotoxic T lymphocyte inactivating program that impairs adoptive cell therapy against cancer

David Wald, M.D., Ph.D.
Case Western Reserve University, Cleveland, OH
Targeting TGF/β/GSK3 to enhance NK cell therapy for colon cancer

Li Wang, Ph.D.
Cleveland Clinic Foundation, Cleveland, OH
Defining the role of a novel T cell-regulatory receptor in the development of anti-tumor immunity

Edus H. Warren, M.D., Ph.D.
Fred Hutchinson Cancer Research Center, Seattle, WA
A platform for single-cell functional characterization of tumor infiltrating lymphocytes from renal cell carcinoma

Xingxing Zang, Ph.D.*
Albert Einstein College of Medicine, Bronx, NY
A novel immune checkpoint pathway in human cancers

Baochun Zhang, M.D., Ph.D.*
Dana-Farber Cancer Institute, Boston, MA
Developing a multimant-targeting cytokitic CD4+ T cell approach for treating B cell malignancies

Wade F. B. Thompson CLIP Investigator

Gregory F. Sisson, Ph.D.
Weill Cornell Medical College, New York, NY
Defining host-microbe interactions in cancer immunotherapy

Nu Zhang, Ph.D.
University of Texas Health Science Center at San Antonio, San Antonio, TX
The cellular mechanisms controlling PD-1 blockade-resisting CD8 T cells

LLOYD J. OLD STAR PROGRAM

Yvonne Y. Chen, Ph.D.*
University of California, Los Angeles, Los Angeles, CA
Engineering smarter and stronger T cells for cancer immunotherapy

Amanda W. Lund, Ph.D.*
Oregon Health & Science University, Portland, OR
Investigating and exploiting the lymphatic vasculature through cancer immunity lifecycle

Alexander Marson, M.D., Ph.D.*
University of California, San Francisco, San Francisco, CA
Reprogramming human immune cells with CRISPR for cancer immunotherapy

Andrea Schieltzinger, Ph.D.*
Memorial Sloan Kettering Cancer Center, New York, NY
Decoding and reprogramming T cells for cancer immunotherapy

Wade F. B. Thompson CLIP Investigator

Gregory F. Sisson, Ph.D.
Weill Cornell Medicine, New York, NY
Defining host-microbe interactions in cancer immunotherapy

TECHNOLOGY IMPACT AWARDS

Brian D. Brown, Ph.D.
Icahn School of Medicine at Mount Sinai, New York, NY
Development of a novel technology for cancer immunology target discovery

Marcin Piotr Cieslik, Ph.D.*
Regents of the University of Michigan, Ann Arbor, MI
TCR-FISH: A novel method for spatially and clonally resolved profiling of tumor-infiltrating lymphocytes

Dongeun Huh, Ph.D.
University of Pennsylvania, Philadelphia, PA
A microengineered biomimetic model of tumor-immune cell interactions

Hyun Jung Kim, Ph.D.
University of Texas at Austin, Austin, TX
A pathomimetic colorectal cancer-on-a-chip for unveiling the role of gut microbiome on cancer immunotherapy

Yvonne Y. Chen, Ph.D.*
Stanford University, Stanford, CA
New technology to discover targetable kinases to enhance checkpoints inhibition

Anumah T. Sopathiy, M.D., Ph.D.*
University of Michigan, Ann Arbor, MI
Single-cell epigenome technologies for cancer immunotherapy

Jun Wu, Ph.D.*
State University of New York, Buffalo, Buffalo, NY
A novel liquid biopsy for precision cancer Immunotherapy

Muneesh Tewari, M.D., Ph.D.*
University of Michigan, Ann Arbor, MI
Single molecule counting digital immunoassay platform for ultrafast multiplex screening of cytokine release syndrome in CAR T patients

IMPACT GRANTS

Robert Michael Angelo, M.D., Ph.D., and Sean C. Bendall, Ph.D.
Stanford University, Stanford, CA
High dimension protein characterization of gliat tumor tissues and relevance to outcomes in immunotherapy clinical trials
Justin Guiney, Ph.D.
Bisonetworks, Seattle, WA
The Pan-Cancer Immune Atlas: A platform for immuno-omics research and data sharing

Sergei A. Nedospasov, Ph.D., D.Sc.
Lomonosov Moscow State University, Moscow, Russia
Lloyd J. Old Advanced Training Program in Immunology and Oncimmunology at Lomonosov Moscow State University

American Association for Cancer Research* Philadelphia, PA Collaboration on Cancer Immunology Research

Partnership Grants

Timothy N.J. Bullock, Ph.D.
University of Virginia Health System, Charlottesville, VA
Enhancing immune therapy for brain metastases with focused ultrasound In partnership with the Focused Ultrasound Foundation

Cyrille Cohen, Ph.D.*
Bar-Ilan University, Tel-Aviv, Israel CRISPR-based editing and manipulation of TIGIT/CD96 to enhance immune-stimulating effects of chemotherapy

Gavin Peter Dunn, M.D., Ph.D.
Washington University School of Medicine, St. Louis, MO Leveraging focused ultrasound to enhance immunogenicity and liquid biopsy in glioblastoma In partnership with the Focused Ultrasound Foundation

Amy K. Kim, M.D.
Johns Hopkins University School of Medicine, Baltimore, MD Investigating immune checkpoint biomarkers in tissue and peripheral blood of patients with fibromyalgia, hepatitis, and colorectal cancer In partnership with the Fibromyalgia Foundation

Elizabeth A. Mittendorf, M.D., Ph.D.*
Dana-Farber Cancer Institute, Boston, MA An exploratory biomarker study of metastatic triple-negative breast cancer patients treated with atezolizumab, an anti-PO-L1 antibody, and nab-Paclitaxel In partnership with Breast Cancer Research Foundation and Parker Institute for Cancer Immunotherapy

Malcolm A.S. Moore, D.Phil.
Memorial Sloan Kettering Cancer Center, New York, NY Engineering chimeric antigen receptor T cells to overcome immune escape in multiple myeloma Gar Reichman Laboratory

Lior Nissim, Ph.D.*
The Hebrew University-Hadassah Medical School, Jerusalem, Israel A synthetic-biology based modality for lung cancer immunotherapy in partnership with the Israel Cancer Research Fund

Asya Rolia, Ph.D.*
Israel Institute of Technology, Haifa, Israel Neuronal regulation of anti-tumor immunity in partnership with the Israel Cancer Research Fund

Cynthia L. Sears, M.D.
Johns Hopkins University School of Medicine, Baltimore, MD Gut microbiome and the immune microenvironment of human primary and metastatic colorectal cancer In partnership with Fight Colorectal Cancer

Clinical Strategy Team Grants

Targeting the tumor immune microenvironment to enhance immune-stimulating effects of chemotherapy

Team Lead: Andrew G. Sikora, M.D., Ph.D.
Team Members: Alexander L. Pham, M.D., Ph.D., and Julie R. Brahmer, M.D., Johns Hopkins University School of Medicine, Baltimore, MD, Cheryl Ho, M.D., RFRPC, British Columbia Cancer Foundation, Vancouver, British Columbia

A biomarker directed phase II study of molecular response of immuno-chemotherapy in NSCLC* Study Chair: Valsamo Anagnostou, M.D., Ph.D., and Julie R. Brahmer, M.D., Johns Hopkins University School of Medicine, Baltimore, MD, Cheryl Ho, M.D., FRCP, British Columbia Cancer Foundation, Vancouver, British Columbia

Clinical Trials Funded

A phase 2b/2 multicenter, open-label, exploratory platform study to evaluate immunotherapy combinations for the treatment of patients with previously untreated metastatic pancreatic adenocarcinoma* Study Chair: Robert H. Vanderheide, M.D., Ph.D., Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA Lead Investigators: George Fischer, M.D., Stanford University School of Medicine, Stanford, CA, and Andrew Ko, M.D., University of California, San Francisco, San Francisco, CA, and Dmitriy Zamarin, M.D., Princess Margaret Cancer Centre, Toronto, Canada; Holger W. Hirte, M.D., University Medical Center, Stanford, CA, Nham N. Khalil, M.D., Ph.D., Memorial Sloan Kettering Cancer Center, New York, NY; Shivani Kummar, M.D., FACP, Stanford University Medical Center, Stanford, CA

An exploratory study of nivolumab with or without ipilimumab according to the percentage of tumoral CD8 cells in patients with advanced metastatic cancer*

Study Chair: Padmanee Sharma, M.D., Ph.D., The University of Texas MD Anderson Cancer Center, Houston, TX Lead Investigators: Alexandra Drakaki, M.D., University of California, Los Angeles, Los Angeles, CA, Lawrence Fong, Chair, University of California, San Francisco, San Francisco, CA; F. Stephen Hodi, M.D., Dana-Farber Cancer Institute, Boston, MA, Danny N. Khalil, M.D., Ph.D., Memorial Sloan Kettering Cancer Center, New York, NY, Shivani Kummar, M.D., FACP, Stanford University Medical Center, Stanford, CA

Nivolumab ipilimumab in patients with hypermutated cancers detected in blood

Study Chair: Nayer Izivi, M.D., Ph.D., Columbia University, New York, NY Lead Investigators: Nina Bhadravaj, M.D., Ph.D., Icahn School of Medicine at Mount Sinai, New York, NY; Timothy A. Chan, M.D., Ph.D., Memorial Sloan Kettering Cancer Center, New York, NY; Stephen Chia, M.D., British Columbia Cancer Foundation, Vancouver, British Columbia; Neeshah Ohanian, M.D., Princess Margaret Cancer Centre, Toronto, Canada; Holger W. Hirt, M.D., Juravinski Regional Cancer Centre, Hamilton, Canada; Patricia Tang, M.D., Tom Baker Cancer Centre, Calgary.
A phase 1/2 study of combination immunotherapy and mRNA vaccine in subjects with non-small cell lung cancer

Study Chair: Janelle E. Gray, M.D., Moffitt Cancer Center, Tampa, FL

Lead Investigators: Jaxin Niu, M.D., Banner Gateway Medical Center, Gilbert, AZ; Joshua Sabari, M.D. NYU Langone Health, New York, NY; Jonathan Thompson, M.D., Medical College of Wisconsin, Milwaukee, WI

A phase 1/2 dose escalation study with expansion cohorts to investigate the safety, biologic and anti-tumor activity of ONCOS-102 in combination with durvalumab in subjects with advanced peritoneal malignancies

Study Chair: Dmytriy Zamarin, M.D., PhD., University Hospital of Lausanne, Lausanne, Switzerland

Lead Investigators: Linda Duska, M.D., University of Virginia Health System, Charlottesville, VA; Paul DiSilvestro, M.D., Memorial Sloan Kettering Cancer Center, Buffalo, NY; Brian Slomovitz, M.D., University of Miami, Miami, FL

A phase 1 study of in situ vaccination with checkpoint antibodies tremelimumab and IV durvalumab plus the toll-like receptor agonist PolyICLC in subjects with advanced, measurable, biopsy-accessible cancers

Study Chairs: Nina Bhardwaj, M.D., Ph.D., Icahn School of Medicine at Mount Sinai, New York, NY; Craig L. Slingluff Jr., M.D., University of Virginia Health System, Charlottesville, VA; John Neumanitis, M.D., University of Virginia, Charlottesville, VA; Jonathan Fletcher, M.D., Memorial Sloan Kettering Cancer Center, New York, NY; David O’Malley, M.D., Johns Hopkins University School of Medicine, Baltimore, MD; Ahmad Tarhini, M.D., Dartmouth Hitchcock Medical Center, Lebanon, NH; Maha Ayyoub, Pharm. D., Ph.D., CHUV, University of Toulouse, France

A phase 2 study to evaluate the clinical efficacy and safety of MEDI4736 in patients with glioblastoma

Study Chair: David Reardon, M.D., Dana-Farber Cancer Institute, Boston, MA

Lead Investigators: Jennifer Clarke, M.D., UCLA Medical Center, Los Angeles, CA; Timothy S. Cloughesy, M.D., UCLA Medical Center, Los Angeles, CA; Jerg Dietrich, M.D., Massachusetts General Hospital, Boston, MA; Gavin Dunn, M.D., Ph.D., Washington University School of Medicine, St. Louis, MO; Hui Gan, M.D., Austin Hospital, Melbourne, Australia; Thomas Kaley, M.D., Memorial Sloan Kettering Cancer Center, New York, NY; Michael Lim, M.D., Johns Hopkins University School of Medicine

A phase 1 study to evaluate the safety and tolerability of anti-PD-L1 (MEDI4736) in combination with tremelimumab in subjects with advanced solid tumors

Study Chairs: Margaret Callahan, M.D., Ph.D., and Jedd Wolchok, M.D., Ph.D., Memorial Sloan Kettering Cancer Center, New York, NY

Lead Investigators: Patrick Dillon, M.D., Memorial Sloan Kettering Cancer Center, New York, NY; Thomas Kaley, M.D., Memorial Sloan Kettering Cancer Center, New York, NY; Thomas Kaley, M.D., Memorial Sloan Kettering Cancer Center, New York, NY; David O’Malley, M.D., Johns Hopkins University School of Medicine; Christina L. Schmitt, M.D., PhD., University of Virginia, Charlottesville, VA; Kunle Odunsi, M.D., Roswell Park Comprehensive Cancer Center, Buffalo, NY; Brian Slomovitz, M.D., University of Miami, Miami, FL;

Platform study for prostate cancer: initially assessing translational endpoints correlated to response to immune checkpoint blockade

Study Chair: Brian G. Wanielista, M.D., PhD., UC San Diego Moores Cancer Center, San Diego, CA

Lead Investigators: Ananya K. Shah, M.D., PhD., Massachusetts General Hospital, Boston, MA; Eric D. Conley, M.D., University of Virginia, Charlottesville, VA; John Tuohy, M.D., Roswell Park Comprehensive Cancer Center, Buffalo, NY; Jeff L. Segal, M.D., NYU Langone Medical Center, New York, NY; Adam P. Seidman, M.D., Memorial Sloan Kettering Cancer Center, New York, NY; David O’Malley, M.D., Johns Hopkins University School of Medicine; Christina L. Schmitt, M.D., University of Virginia, Charlottesville, VA; Kunle Odunsi, M.D., Roswell Park Comprehensive Cancer Center, Buffalo, NY; Brian Slomovitz, M.D., University of Miami, Miami, FL; A. John Peck, M.D., PhD., University of Texas MD Anderson Cancer Center, Houston, TX; Michael Lee, M.D., Froedtert Hospital, Milwaukee, WI; Benjamin L. Smith, M.D., PhD., University of California, San Francisco, CA; Michael L. Grant, M.D., PhD., NYU Langone Health, New York, NY; Albert F. Abbruzzese, PhD., University of Tennessee Health Science Center, Memphis, TN; Jeffery S. Weber, M.D., Ph.D, NYU Langone Health, New York, NY; David O’Malley, M.D., University of North Carolina, Chapel Hill, NC; Jeffrey S. Weber, M.D., Ph.D, NYU Langone Health, New York, NY; and Jeffery S. Weber, M.D., Ph.D, NYU Langone Health, New York, NY; and Patrick Ott, M.D., Dana-Farber Cancer Institute, Boston, MA

A phase 1 trial of a new product to develop the efficacy and safety of NY-ESO-1 overlapping peptides for use in a variety of trials

Study Chair: Jiaxin Niu, M.D., PhD., University of Virginia, Charlottesville, VA

Lead Investigators: Ansuman T. Satpathy, M.D., PhD., Stanford University, Stanford, CA; William B. Coley Award in Tumor Immunology

Padmanee Sharma, M.D., Ph.D., The University of Texas MD Anderson Cancer Center, Houston, TX

William B. Coley Award in Tumor Immunology

Maha Ayyoub, Pharm. D., Ph.D., CHUV, University of Toulouse, France

Ranjeet Production

Polypeptide Laboratories

San Diego, CA

Production of NY-ESO-1 overlapping peptides for use in a variety of trials

Correlative and Laboratory Studies

Contribution of tumor antigen-specific adaptive immunity to responsiveness to immune checkpoint blockade

Maha Ayyoub, Pharm. D., Ph.D., University of Toulouse, Toulouse, France

REVIVE: Resistance to PD-1—ReVerse translational to identify NOVEI combinations

Danny Wells, Ph.D., Parker Institute for Cancer Immunotherapy, San Francisco, CA

The single cell atlas of response to immunotherapy

Ansuman T. Satpathy, M.D., PhD., Stanford University, Stanford, CA

Platform study for prostate cancer: initially assessing translational endpoints correlated to response to immune checkpoint blockade

Correlative studies

Parker Institute for Cancer Immunotherapy, San Francisco, CA

ANNUAL AWARDS

CORNELIS J. MEILF, M.D., PH.D.

Leiden University Medical Center, Leiden, The Netherlands

CRI-AACR Lloy D. Old Award in Immunotherapy

MIRIAM MERAD, M.D., PH.D.

Icahn School of Medicine at Mount Sinai, New York, NY

William B. Coley Award in Basic Immunology

BORIS V. REIZIS, PH.D.

New York University School of Medicine, New York, NY

Frederick W. Alt Award for New Discoveries in Immunology

PAMANNEE SHARMA, M.D., PH.D.

The University of Texas MD Anderson Cancer Center, Houston, TX

William B. Coley Award in Tumor Immunology

49
Donors

Our work to advance lifesaving science is possible only with the generous support of individual donors, philanthropic foundations, and corporate sponsors who share our vision of a Future Immune to Cancer™.

Acknowledgments listed here reflect contributions of $1,000 or more made to CRI between July 1, 2018, and June 30, 2019.
The Helen Coley Nauts Society recognizes donors who have included CRI in their estate plans. Through deferred gifts, bequests, trusts, and other planned giving instruments, these thoughtful individuals safeguard CRI’s financial future.

The Helen Coley Nauts Society is named in memory of CRI’s founder, whose passionate belief that the immune system could one day be harnessed to fight cancer helped make this powerful vision a reality for millions of cancer patients today.

Contact Us
To learn about preserving your legacy by making a planned gift to CRI, contact Rupinder Kaur at legacy@cancerresearch.org or call us at (212) 688-7515.
Community Fundraisers

We are deeply grateful for the growing community of fundraisers who inspire their family, friends, colleagues, and broader networks to support our cause.

Robin Halperin raised funds for Team CRI by running the 2018 TCS New York City Marathon.

Brian Landau raised over $5,000 and delivered his check in-person at CRI offices after cycling over 4,000 miles across America.

After losing his father to cancer, Gunner’s only wish for his fourth birthday was to have donations made to CRI.

Conversing with Oceans performs at the Music for a Cause fundraiser in Bronx, NY. Photo by Lou Guarneri.

Carter and Mark Comer turned their wedding into a fundraiser and raised over $14,000.

Joshua Boudreaux hosts a drag-themed party and fundraiser (over $2,300) to celebrate being cancer-free.

Trevor Smith and friends gather after the Fourth Annual Jim and Jerry Smith Memorial Golf Tournament Fundraiser, which raised over $6,500.
Financial Highlights

Donor trust is our most valued asset. We earn and keep this trust through our commitment to accountability and transparency, holding ourselves to the highest standards of fiscal integrity and responsible use of donor dollars.

Applying best nonprofit accounting practices has consistently earned CRI top ratings from charity watchdogs including the Better Business Bureau, Charity Navigator, GuideStar, and others—giving further assurance to discerning donors seeking to make the greatest impact with their philanthropic investments.

We open our books annually for inspection and verification by independent auditors. EisnerAmper conducted an audit of our financial records for Fiscal Year 2019 (July 1, 2018, to June 30, 2019), a complete copy of which is available on our website. We provide highlights from that report here, which reflect revenues of $39.4 million, expenses of $37.1 million, and end of year net assets of $58.8 million.

To view our complete audited financials, go to cancerresearch.org/financials.

Total Support & Revenues: $39.4 million

- Contributions: $31.3 million, 79%
- Bequests and Memorials: $3.1 million, 8%
- Investments and Other: $2.8 million, 7%
- Special Events: $2.3 million, 6%

Total Expenses: $37.1 million

- Research: $25.5 million, 69%
- Science, Medical, and Research Information and Communications: $5.2 million, 14%
- Marketing and Development: $2.7 million, 7%
- Administration: $1.5 million, 4%
- Allowance for Uncollectible Accounts: $2.2 million, 6%

End of Year Net Assets: $58.8 million
Governance and Guidance

Leaders in business, philanthropy, and science volunteer their time and expertise to guide the Cancer Research Institute’s strategic course, oversee its operations, shape its mission-driven programs, and increase awareness of CRI’s impact.

BOARD OF TRUSTEES

CO-CHAIRMEN
Paul C. Shiverick
Co-Founder
Seminole Management Company, Inc.
New York, NY
Andrew K. Tsai
Managing Principal
Challstream Capital Group, L.P.
New York, NY

CO-CHAIRMEN
Paul C. Shiverick
Co-Founder
Seminole Management Company, Inc.
New York, NY
Andrew K. Tsai
Managing Principal
Challstream Capital Group, L.P.
New York, NY

VICE CHAIRMEN
Edgar R. Berner
Partner
John Lang, Inc.
New York, NY
John B. Fitzgibbons
Chairman & CEO
Basin Holdings US LLC
New York, NY
Donald J. Gogol
Chairman & CEO
Basin Holdings US LLC
New York, NY

VICE CHAIRMEN
Edgar R. Berner
Partner
John Lang, Inc.
New York, NY
John B. Fitzgibbons
Chairman & CEO
Basin Holdings US LLC
New York, NY
Donald J. Gogol
Chairman & CEO
Basin Holdings US LLC
New York, NY

SECRETARY
Thomas G. Mendell
Private Investor
T.G. Mendell Corp.
New York, NY

SECRETARY
Thomas G. Mendell
Private Investor
T.G. Mendell Corp.
New York, NY

MEMBERS
Antonio C. Alvarez II
Co-Founder and Chief Executive Officer
Alvarez & Marsal Holdings, LLC
New York, NY

MEMBERS
Antonio C. Alvarez II
Co-Founder and Chief Executive Officer
Alvarez & Marsal Holdings, LLC
New York, NY

Sandra Coudert Graham
Oyster Bay, NY
Michael M. Kellen
Director
First Eagle Investment Management, LLC
New York, NY

Sandra Coudert Graham
Oyster Bay, NY
Michael M. Kellen
Director
First Eagle Investment Management, LLC
New York, NY

Alexander P. Lynch
Greenwich, CT
Michael J. Petrick
Greenwich, CT

Alexander P. Lynch
Greenwich, CT
Michael J. Petrick
Greenwich, CT

Brian Riano
Founding Partner
Compass Rose Asset Management, LP
New York, NY

Brian Riano
Founding Partner
Compass Rose Asset Management, LP
New York, NY

Lief D. Rosenblatt
Partner
ENE Invesco Management
New York, NY

Lief D. Rosenblatt
Partner
ENE Invesco Management
New York, NY

Frank V. Sica
President
Menemsha Capital Partners, Ltd.
New York, NY

Frank V. Sica
President
Menemsha Capital Partners, Ltd.
New York, NY

James A. Stern
Chairman
The Cypress Group, LLC
New York, NY

James A. Stern
Chairman
The Cypress Group, LLC
New York, NY

Robert S. Stolar
Managing Director
Morgan Stanley
New York, NY

Robert S. Stolar
Managing Director
Morgan Stanley
New York, NY

Michael B. Targoff
Vice Chairman of the Board of Directors
Loral Space & Communications
New York, NY

Michael B. Targoff
Vice Chairman of the Board of Directors
Loral Space & Communications
New York, NY

Sarah Belk Gambrell
Charlotte, NC

William G. Grabe
Advisory Director
General Atlantic
Greenwich, CT

Ann W. Jackson
New York, NY

Arthur L. Jacobson
Indian Wells, CA

Robert A. Posner
Managing Director
Commonwealth-Holding, LP
Brookline, MA

Julian H. Robertson Jr.
Chairman
Tiger Management, LLC
New York, NY

TRUSTEES EMERITI
Howard P. Berkowitz
Managing General Partner
HPG Associates
New York, NY

TRUSTEES EMERITI
Howard P. Berkowitz
Managing General Partner
HPG Associates
New York, NY

Donald G. Calder
New York, NY

Donald G. Calder
New York, NY

Stuart P. Davidson
Managing Partner
Labraider Ventures
San Francisco, CA

Stuart P. Davidson
Managing Partner
Labraider Ventures
San Francisco, CA

Bruce D. Dixon
San Francisco, CA

Bruce D. Dixon
San Francisco, CA

Peter L. Bloom
Brooklyn, NY

Peter L. Bloom
Brooklyn, NY

Jennifer L. Brossen
Briarcliff, NY

Jennifer L. Brossen
Briarcliff, NY

James M. Catin
Leader, CEO Practice
Spencer Stuart
Stamford, CT

James M. Catin
Leader, CEO Practice
Spencer Stuart
Stamford, CT

W. Robert Dahl
Greenwich, CT

W. Robert Dahl
Greenwich, CT

Glenn J. DeSimone
Vero Beach, FL

Glenn J. DeSimone
Vero Beach, FL

John E. Eckerson
Pound Ridge, NY

John E. Eckerson
Pound Ridge, NY

Sean P. Fahey
Founding Partner
Compass Rose Asset Management, LP
New York, NY

Sean P. Fahey
Founding Partner
Compass Rose Asset Management, LP
New York, NY

Margot E. Freedman
White Plains, NY

Margot E. Freedman
White Plains, NY

Oliver R. Grace Jr.
President
Associated Asset Management, Inc.
Palm Beach, FL

Oliver R. Grace Jr.
President
Associated Asset Management, Inc.
Palm Beach, FL

Sarah Belk Gambrell
Charlotte, NC

William G. Grabe
Advisory Director
General Atlantic
Greenwich, CT

Ann W. Jackson
New York, NY

Arthur L. Jacobson
Indian Wells, CA

Robert A. Posner
Managing Director
Commonwealth-Holding, LP
Brookline, MA

Julian H. Robertson Jr.
Chairman
Tiger Management, LLC
New York, NY

ASSOCIATE BOARD

CHAIRMAN
Trent Kososki
Partner
Energy Capital Partners
Houston, TX

CHAIRMAN
Trent Kososki
Partner
Energy Capital Partners
Houston, TX

MEMBERS
Michael Arias
New York, NY

MEMBERS
Michael Arias
New York, NY

Javier Arbelo
Executive Director
UBS
New York, NY

Adler Bernard
Attorney
JP Morgan Chase & Co.
New York, NY

CANCER RESEARCH INSTITUTE 2019 ANNUAL REPORT 67
Philadelphia, PA
Century Therapeutics
Hyam I. Levitsky, M.D.

New York, NY
Cancer Center
Memorial Sloan Kettering
Christina S. Leslie, Ph.D.

San Francisco, CA
University of California, San Francisco
Lewis L. Lanier, Ph.D.

Doha, Qatar
Research, Hamad Medical Corporation
Alexander Knuth, M.D.

University of Pittsburgh Medical Center
John M. Kirkwood, M.D.

San Diego, CA
University of California, San Diego
Michael Karin, Ph.D.

South San Francisco, CA
ArsenalBio
Michael Kalos, Ph.D.

La Jolla, CA
Salk Institute for Biological Studies
Susan M. Kaech, Ph.D.

Philadelphia, PA
the University of Pennsylvania
Perelman School of Medicine at
Abramson Cancer Center,
Carl H. June, M.D.

Baltimore, MD
School of Medicine
Johns Hopkins University
Cancer Center
The Sidney Kimmel Comprehensive Cancer Center
Dan R. Littman, M.D., Ph.D.

New York, NY
Cancer Center
Memorial Sloan Kettering
Ming O. Li, Ph.D.

NYU Langone Medical Center
New York, NY
Dan R. Littman, M.D., Ph.D.

Philadelphia, PA
Century Therapeutics
Hyam I. Levitsky, M.D.

New York, NY
Cancer Center
Memorial Sloan Kettering
Christina S. Leslie, Ph.D.

San Francisco, CA
University of California, San Francisco
Lewis L. Lanier, Ph.D.

Doha, Qatar
Research, Hamad Medical Corporation
Alexander Knuth, M.D.

University of Pittsburgh Medical Center
John M. Kirkwood, M.D.

San Diego, CA
University of California, San Diego
Michael Karin, Ph.D.

South San Francisco, CA
ArsenalBio
Michael Kalos, Ph.D.

La Jolla, CA
Salk Institute for Biological Studies
Susan M. Kaech, Ph.D.

Philadelphia, PA
the University of Pennsylvania
Perelman School of Medicine at
Abramson Cancer Center,
Carl H. June, M.D.

Baltimore, MD
School of Medicine
Johns Hopkins University
Cancer Center
The Sidney Kimmel Comprehensive Cancer Center
Dan R. Littman, M.D., Ph.D.

New York, NY
Cancer Center
Memorial Sloan Kettering
Ming O. Li, Ph.D.

NYU Langone Medical Center
New York, NY
Dan R. Littman, M.D., Ph.D.

Philadelphia, PA
Century Therapeutics
Hyam I. Levitsky, M.D.

New York, NY
Cancer Center
Memorial Sloan Kettering
Christina S. Leslie, Ph.D.

San Francisco, CA
University of California, San Francisco
Lewis L. Lanier, Ph.D.

Doha, Qatar
Research, Hamad Medical Corporation
Alexander Knuth, M.D.

University of Pittsburgh Medical Center
John M. Kirkwood, M.D.

San Diego, CA
University of California, San Diego
Michael Karin, Ph.D.

South San Francisco, CA
ArsenalBio
Michael Kalos, Ph.D.

La Jolla, CA
Salk Institute for Biological Studies
Susan M. Kaech, Ph.D.

Philadelphia, PA
the University of Pennsylvania
Perelman School of Medicine at
Abramson Cancer Center,
Carl H. June, M.D.

Baltimore, MD
School of Medicine
Johns Hopkins University
Cancer Center
The Sidney Kimmel Comprehensive Cancer Center
Dan R. Littman, M.D., Ph.D.

New York, NY
Cancer Center
Memorial Sloan Kettering
Ming O. Li, Ph.D.

NYU Langone Medical Center
New York, NY
Dan R. Littman, M.D., Ph.D.

Philadelphia, PA
Century Therapeutics
Hyam I. Levitsky, M.D.

New York, NY
Cancer Center
Memorial Sloan Kettering
Christina S. Leslie, Ph.D.

San Francisco, CA
University of California, San Francisco
Lewis L. Lanier, Ph.D.

Doha, Qatar
Research, Hamad Medical Corporation
Alexander Knuth, M.D.

University of Pittsburgh Medical Center
John M. Kirkwood, M.D.

San Diego, CA
University of California, San Diego
Michael Karin, Ph.D.

South San Francisco, CA
ArsenalBio
Michael Kalos, Ph.D.

La Jolla, CA
Salk Institute for Biological Studies
Susan M. Kaech, Ph.D.

Philadelphia, PA
the University of Pennsylvania
Perelman School of Medicine at
Abramson Cancer Center,
Carl H. June, M.D.

Baltimore, MD
School of Medicine
Johns Hopkins University
Cancer Center
The Sidney Kimmel Comprehensive Cancer Center
Dan R. Littman, M.D., Ph.D.

New York, NY
Cancer Center
Memorial Sloan Kettering
Ming O. Li, Ph.D.

NYU Langone Medical Center
New York, NY
Dan R. Littman, M.D., Ph.D.

Philadelphia, PA
Century Therapeutics
Hyam I. Levitsky, M.D.

New York, NY
Cancer Center
Memorial Sloan Kettering
Christina S. Leslie, Ph.D.

San Francisco, CA
University of California, San Francisco
Lewis L. Lanier, Ph.D.

Doha, Qatar
Research, Hamad Medical Corporation
Alexander Knuth, M.D.

University of Pittsburgh Medical Center
John M. Kirkwood, M.D.

San Diego, CA
University of California, San Diego
Michael Karin, Ph.D.

South San Francisco, CA
ArsenalBio
Michael Kalos, Ph.D.

La Jolla, CA
Salk Institute for Biological Studies
Susan M. Kaech, Ph.D.

Philadelphia, PA
the University of Pennsylvania
Perelman School of Medicine at
Abramson Cancer Center,
Carl H. June, M.D.
CRI honored scientific and philanthropic contributions to cancer immunotherapy at its annual awards gala in October 2018.
Giving to CRI

Donor support directly impacts the discovery and development of powerful immunotherapies for all types of cancers—funding more breakthroughs and saving more lives. We offer many ways to give directly or fundraise on our behalf.

Cash
Donations by check or credit card may be sent directly to CRI or processed through our secure website at cancerresearch.org/donate.

Property Other than Cash
Donating securities, automobiles, and similar properties can often be a tax-efficient method for making a meaningful gift to CRI. Visit cancerresearch.org/ways-to-give.

Workplace Giving Programs
Ask your human resources department if your company has a plan through which you can contribute to CRI, or contact us to learn how to set up a program at your workplace. Visit cancerresearch.org/workplace-giving.

Community Fundraising
Want to hold a bake sale to raise money for cancer research? How about a fashion show, dinner, or a concert? We offer support for these and other fundraising ideas. To learn more about how you can organize your own special event and become a part of Team CRI, visit cancerresearch.org/fundraise.

Employer Matching Gifts
Contact your human resources department to inquire if your employer matches contributions, or browse our online matching gift database to see if your company is listed at cancerresearch.org/matching-gifts.

Planned Gifts
Make a bequest to CRI through a living trust or in your will as a beneficiary of cash, securities, or personal property. You should always consult your attorney and tax advisor for the formal writing of your will and to discuss the tax implications of any form of planned giving. Learn more online at legacy.cancerresearch.org.

Special Events
CRI hosts official fundraising events such as our annual awards gala and Through the Kitchen party. To learn more about these fun and celebratory fundraisers, contact events@cancerresearch.org.

Corporate Partnerships
CRI actively seeks out and welcomes opportunities to work with others to develop educational and awareness-building programs designed to advance the pace of progress in cancer immunotherapy research. Contact Sharon Slade at sslade@cancerresearch.org or (212) 688-7515 x230 to learn more.

Michelle Falkner
immunotherapy patient and esophageal cancer veteran

Although conventional treatments for esophageal cancer put Michelle into remission, odds were high that her late-stage cancer would come back. Determined to do all she could to stay cancer-free, she enrolled in a clinical trial of an immunotherapy designed to keep her immune system fighting. Three years later, Michelle’s cancer hasn’t returned. Immunotherapy, she says, was a safety net that led to peace of mind. Today she is able to continue doing what she loves most: planning adventures with her husband, Juan, and daughter, Cara Mia.

Watch Michelle’s immunotherapy story at cancerresearch.org/michelle

“We have things to look forward to now, because I’m gonna be here.”