Elements of Success

PERIODIC TABLE OF CANCER RESEARCH

Message from the Director

“When I reflect upon my tenure at Massey, what will stand out the most is not only how far we’ve come with our science and innovation but also how fortunate we are to have an incredible and committed community that ensures our shared vision extends far beyond the laboratory’s walls.”

— Gordon D. Ginder, MD
Lipman Chair in Oncology
Director, VCU Massey Cancer Center

As I entered my 21st year as director of Massey Cancer Center, I was acutely aware — perhaps more than ever — of the unique nature of our community. While I have been hailed as captain of this ship for two decades, so many of you have, for the same two decades or longer, formed both the sturdy rudder and powerful sails, keeping us on course no matter the condition of the seas.

Our success would not have been possible without the $10.5 million in philanthropic funds you invested, the $12.5 million from the Commonwealth of Virginia you helped secure, and your constant belief that we are making a difference in the lives of people facing cancer now and in years to come.

Each year, this report serves as an opportunity to reflect on our accomplishments, and, thanks to you, the 2018 fiscal year brought more noteworthy highlights than we could fit within these pages. Last year, we launched Vision 2021, our strategic plan created to support our goal of achieving NCI Comprehensive status. That plan has helped crystallize our research investment in immunology, precision medicine, obesity and metabolism, and cancer disparities.

We also became the first cancer center in Virginia to offer the revolutionary, FDA-approved CAR T-cell therapy. We re-designed and piloted a new model of new patient care. We welcomed a national leader in the innovative field of cardio-oncology. We broke ground on a new outpatient facility.

Given these incredible achievements, it is bittersweet to share this thanks for the last time as I look forward to the next phase in my career. While I may be shifting my focus more to my own research and patient care, I am thrilled to still have the opportunity to see the countless advances and breakthroughs that you will undoubtedly help us bring to fruition in the years ahead.

On behalf of all of us at Massey, thank you for your partnership.

— Gordon D. Ginder, MD
Lipman Chair in Oncology
Director, VCU Massey Cancer Center

A FUTURE WITHOUT CANCER IS HOW WE WILL MEASURE OUR SUCCESS

But what are the elements involved? We believe you are a critical element. Every donation you make, every event you attend, every dollar you raise and every board or committee on which you serve is crucial in our shared vision of a world without cancer. Combine philanthropy with other elements like our Vision 2021 priorities, grant funding, new and more effective treatments, and innovative research, and we believe a future without cancer is ambitious but possible. We thank you for your generous support as we look forward to celebrating continued success in the coming year.
Innovation

Because of your generous support, we are able to recruit the best and brightest to lead us in the fight against cancer. Meet our newest faculty and research members, and get to know a surprisingly adorable and loveable addition to our staff.

NEW RECRUITS
Leroy Thacker, PhD, Department of Biostatistics
Greg Hundley, MD, director, Pauley Heart Center; Department of Internal Medicine
Kandace P. McGuire, MD, FACS, chief of breast surgery, director of the Breast Cancer Collaborative Care Clinic; Division of Surgical Oncology

NEW RESEARCH PROGRAM MEMBERS
Cancer Prevention and Control Program
Marianne Baernholdt, PhD, MPH, RN, FAAN
Guilherme Rocha Campos, MD, FASMS
Rashelle Hayes, PhD
Greg Hundley, MD
Lathika Mohanraj, PhD, RN
Luiseb Ricks-Santi, PhD — affiliate member from Hampton University
Jennifer M. Rohan, PhD

Developmental Therapeutics Program
Martin Charron, MD
Frank B. Gupton, PhD
Kandace P. McGuire, MD, FACS
Tilak Shah, MD, MHS
Christina Tang, PhD
Qingguo Xu, PhD

Cancer Cell Signaling Program
Ashley L. Cowart, PhD

“It is unusual to find a group that does such a wide variety of research and does it well. I look forward to contributing to the science that comes from Massey for many years to come.”
— Kandace McGuire, MD

MASSEY WELCOMES A FURRY NEW ADDITION TO ITS PALLIATIVE CARE UNIT

Despite not having a long list of academic degrees behind her name, one of our newest recruits drew widespread attention and praise upon her arrival at VCU Massey Cancer Center. Two-year-old, fluffy, friendly facility dog Renny joined the staff in the Palliative Care Unit in early summer 2017.

One of the most read blog posts last year, the story about Renny’s arrival traveled quickly, and her popularity skyrocketed among patients and staff alike. As the newest member of the team, Renny makes visits to any palliative care patient who would like to see her so that she may provide comfort and support and help ease their anxiety.

“I've seen patients who haven't smiled in days or who won’t even wake up for their medications become alert and engaged when Renny enters their room,” says Renny’s handler Jessica Gray, RN, who was the nurse manager of the Palliative Care Unit at the time. “She works with us to improve the psychological well-being of our patients; some even report less physical pain after spending time with her.”

The Massey Alliance, Massey’s young professional board, has taken a particular interest in Renny and has even held a supply drive to collect items she needs for her regular care, including food, gift cards for baths, and, of course, festive costumes for holidays.

“I am honored to return to my alma mater as the inaugural director of the Pauley Heart Center, and I am incredibly grateful for Massey’s philanthropic community and their commitment to funding translational research that will lead to better outcomes for cancer patients.”
— Greg Hundley, MD

“Having Renny in the Palliative Care Unit is something different that adds a lot to Massey and our ability to improve our patients’ quality of life. I’m looking forward to improving people’s lives with her for many years.”
— Jessica Gray, RN

$33,440,039 in peer-reviewed, funded research
91% of total research funding is peer reviewed
As we strive to become the first NCI-designated Comprehensive Cancer Center in Virginia, four center-wide research priorities of our Vision 2021 strategic plan have been identified and are sparking innovation that will impact the course of cancer research, resulting in more effective treatment options, better quality of life, and reduced cancer risk, incidence, and deaths in Virginia and beyond.

**Vision 2021**

**Precision Medicine**

*Revolutionary imaging technique uses CRISPR to map DNA mutations*

A team of scientists led by Jason Reed, PhD, physicist and member of Massey’s Cancer Molecular Genetics research program, developed a new technology that could transform the way disease-causing genetic mutations are diagnosed and discovered. The study, published in *Nature Communications*, describes how the novel approach uses CRISPR technology and atomic force microscopy to quickly and accurately map DNA and identify mutations. While there are many potential medical applications, once completed, it would not be hard to imagine this shoe-box-sized instrument in pathology labs assisting in the diagnosis and treatment of diseases linked to genetic mutations.

**Obesity, Metabolism and Inflammation**

*After losing a friend to the disease, Massey researcher uncovers link between liver cancer and obesity*

Driven by the loss of his close friend and colleague, Devanand Sarkar, MBBS, PhD, has been on a decade-long mission to better understand how liver cancer develops. Sarkar, who holds the Harrison Foundation Distinguished Professorship in Cancer Research, is an associate director for education and training and is a member of Massey’s Cancer Molecular Genetics research program, has primarily focused on genes AEG-1 and SND1, and his experiments have provided definitive links between those genes and the development of spontaneous and aggressive liver cancer and non-alcohol-related fatty liver disease. Sarkar is working to apply his findings to develop therapies that target those genes and test them in clinical trials.

**Immunology**

*Phase 2 clinical trial tests benefits of immunotherapy prior to chemo and surgery in breast cancer patients*

In a clinical trial developed by Massey based on research led by Harry Bear, MD, PhD, chair of the Division of Surgical Oncology, Walter Lawrence, Jr. Chair in Surgical Oncology and member of Massey’s Developmental Therapeutics research program, HER2-negative breast cancer patients for whom chemotherapy has been recommended as standard treatment will first receive a month-long course of immunotherapy. Patients receiving the immunotherapy will take an experimental combination of drugs decitabine and pembrolizumab (Keytruda) before undergoing five months of chemotherapy and then surgery. The trial will examine whether this combination leads to an enhanced immune response to the cancer, which could make standard therapies more effective.

**Disparities and Minority Health Research**

*Study unveils reasons for racial disparities among patients participating in breast cancer research*

Motivation for patients to provide samples for genetic tests depends on oncologist engagement or religion, rather than race, according to a study led by Vanessa Sheppard, PhD, associate director for disparities research, co-leader of the Cancer Prevention and Control program and Theresa A. Thomas Memorial Chair in Cancer Prevention and Control at Massey. The study found that women were more likely to participate in research if they had earlier-stage, less aggressive breast cancers, were less religious, experienced a greater sense of well-being and had better access to healthcare. These findings highlight the importance of patient-provider communication and how it can benefit advances in precision medicine that may reduce or eliminate breast cancer disparities.
“We know that by supporting Massey, we are expanding their ability to explore and hopefully identify a cure for this terrible disease that impacts almost every family. Finding a cure is a huge undertaking, but any size gift is a step closer, and donors at every level should feel proud to join the effort. To climb a mountain takes both big and small steps, and together, we must keep climbing.”

— Judy and Harry Wason

SHARED VISION OF IMMUNO-ONCOLOGY INNOVATION INSPIRES MULTIPLE INVESTMENTS

Judy and Harry Wason were initially introduced to VCU Massey Cancer Center by longtime friend Becky Massey, who invited them to an MCV Foundation Discovery Series program. Like many Massey supporters, their involvement has increased exponentially since that first encounter, and Massey’s vision of a world without cancer is now one they wholeheartedly share.

The Wasons, who both have family histories of cancer and who have faced the disease twice, are confident that their contributions to Massey will one day mean that others will not have to go through what they did.

The Wasons have a particular interest in immuno-oncology, a Vision 2021 priority. They believe researchers will soon find more and better ways to use the patient’s own immune system to fight cancer. They do more than just believe. They are investing. Their recent gift of $500,000 was matched by the Glasgow incentive for a total impact of $1 million, establishing the Judy and Harry Wason Distinguished Professorship in Immuno-oncology. Just as scientific breakthroughs require collaboration, so will funding for immuno-oncology, which is why the Wasons are passionate about inspiring others to join their philanthropic efforts.

The collaborative spirit did not take long to have an effect. East West Communities Foundation was also inspired to invest in fueling Massey’s leadership in immuno-oncology. The Foundation’s board pledged $1 million to support the immuno-oncology research initiative. “There is something very special about being part of a collaborative approach to funding such important, cutting-edge research,” said Kathy Pearson, COO/ CFO of East West Communities. “After learning what a game-changer immuno-therapy approaches can be for those facing cancer, we couldn’t pass up an opportunity to move this research priority forward.”

For one Massey supporter, giving is about the mission, not the man, and he is staunchly quiet and humble about his generous investment in cancer research. “The next life Massey saves might be my own,” he notes, while reflecting on his recent donations. While this may be true, his generosity is driven by something deeper than an investment in his future. Philanthropy is a way of life for him, a value passed on by his parents. “My dad was humble,” he explains. “He taught us that class has nothing to do with your behavior and how you live.” Despite the fact that his generous donations of $1.65 million in recent years are a driving force for the research being conducted at Massey, he is adamant about remaining anonymous. He also says it’s more fun that way. After seeing him light up while sharing stories about the adventures he’s created around keeping his identity a secret, it is clear how much joy he gets from helping others.

Initially giving to Massey because his father, who was a longtime supporter, inspired him to donate, the mission is now a personal one. He lost both parents to cancer and has supported many other friends and relatives through their diagnoses, including a cousin whom Dr. Ginder personally and successfully treated. He has contributed to Massey to honor the memory of his father-in-law, which also served as a gift to his wife, and last year, he gave a generous gift to the Cancer Research Innovation Fund—a fund that allows gifts to be directed to high-potential opportunities at the director’s discretion—as a way to honor Dr. Ginder and express his gratitude for his cousin’s care. He not only trusts Dr. Ginder with his family’s cancer care but also trusts his expertise to decide where unrestricted donations can have the greatest impact.

“We see the breakthroughs at Massey gives you hope,” he says. “I love seeing what’s going on and hearing about what projects or trials need more funding. The excitement in the scientists’ voices when they tell you about their work is infectious. It makes you want to give.”
MASSEY BECOMES FIRST IN VIRGINIA TO OFFER FDA-APPROVED CAR T-CELL THERAPY

VCU Massey Cancer Center is now an official treatment center for Yescarta by Kite Pharma for adult patients with recurrent or refractory B-cell lymphoma, making it the first in Virginia to offer an FDA-approved CAR T-cell therapy.

CAR T-cell therapy is an exciting new type of immunotherapy called adoptive cell therapy in which a patient’s T-cells, a kind of immune system cell, are collected from the patient, genetically modified in the laboratory so they will attack cancer cells, then given back to the patient by infusion. The benefits of CAR T-cell therapy may last for many years. Since the cells can persist in the body long term, the patient’s own immune system is effectively reprogrammed to recognize and attack cancer cells to prevent relapse.

Preparing to offer these advanced therapies required extensive clinical coordination throughout VCU Health, and now Massey is poised to soon offer additional FDA-approved CAR T-cell therapies as well as clinical trials promising new immunotherapies. Leading this effort is Massey’s Bone Marrow Transplantation Program, which is now called the Cellular Immunotherapies and Transplantation Program.

“We’re excited to offer these promising new immunotherapies for patients throughout the mid-Atlantic region,” says hematologist-oncologist John M. McCarty, MD, director of the Cellular Immunotherapies and Transplantation Program at VCU Massey Cancer Center. “We are continuously working to expand the number of cellular immunotherapies we offer for both adult and pediatric patients, and we plan to bring on additional FDA-approved therapies as well as clinical trials.”

“In the 30 years that have I been doing bone marrow transplantation and cellular therapy, I have been witness to several groundbreaking and practice-changing therapies. I must say CAR T-cell therapy is probably the most earth-shaking improvement that we have seen in quite some time.”

— John M. McCarty, MD
Director, Cellular Immunotherapies and Transplantation program

“In preclinical experiments led by Steven Grossman, MD, PhD, Massey’s deputy director and Developmental Therapeutics member, scientists uncovered a new way in which colon cancer develops, giving them a potential “silver bullet” for prevention and treatment.

“This study is the latest in a line of research that began in 2010 investigating the gene CtBP by Grossman and his colleagues. Colon cancer depends on the gene for growth, and CtBP works to reprogram the cells by repressing the expression of genes that typically prevent cancer. In this study, the research team targeted CtBP with a drug known as HIPP. In their experiments, HIPP acted almost as a “silver bullet” to prevent polyp formation and may complement current therapies to counter drug resistance.

“This work opens up a whole new avenue for anti-cancer therapeutic development. We believe that anti-CtBP therapies such as HIPP may be able to complement current therapies to counter drug resistance and decrease metastasis, ultimately increasing our ability to control and cure colon cancer.”

— Steven Grossman, MD, PhD
Deputy director, VCU Massey Cancer Center
Diane Nunnally Hoppes Chair in Cancer Research

$11,931,510
NCI peer-reviewed funding
61
projects funded by NCI peer-reviewed grants

36% of peer-reviewed funding obtained through NCI
33% of total funding obtained through NCI

MASSEY RESEARCHERS UNCOVER POTENTIAL “SILVER BULLET” FOR COLON CANCER

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33% of total funding obtained through NCI
Endowed Chairs, Professors and Scholars

Endowed chairs, professors and scholars honor and recognize the distinction of outstanding faculty while providing invaluable support for Massey’s most distinguished researchers. Massey is proud to have a growing list of faculty awarded with such distinction and is grateful for the philanthropic support the following list represents.

**CHAIRS**
Florence and Hyman Meyers Endowed Chair in Radiation Oncology
Douglas W. Arthur, MD
Carolyn Wingate Hyde Endowed Chair in Cancer Research
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Massey Endowed Chair in Palliative Care
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Universal Corporation Chair in Cancer Cell Signaling
Paul Dent, PhD
Thelma Neumeyer Corman Endowed Chair in Oncology Research
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Bernard Fuemmeler, PhD, MPH
Harrigan, Hau, Luck Families Chair in Cancer Research
Charles E. Geyer, Jr., MD
Jeanette and Eric Lipman Chair in Oncology
Gordon D. Ginder, MD
Shirley Carter and Sture Gordon Olson Chair in Cancer Research
Steven Grant, MD
Diane Nunnally Hoppes Chair in Cancer Research
Steven R. Grossman, MD, PhD

**PROFESSORSHIPS**
Linda Grandis Blatt Endowed Chair in Cancer Research
S. Patrick Nana-Sinkam, MD
Theresa A. Thomas Memorial Foundation Chair in Cancer Prevention and Control
Vanessa Sheppard, PhD
Marni T. and Sara D. Lowry Chair in Oncology
Sarah Spiegel, PhD

**DISTINGUISHED PROFESSORSHIPS**
Martha Anne Hatcher Distinguished Professor in Oncology
Andrew C. Larner, MD, PhD
Harrison Foundation Distinguished Professor in Cancer Research
Devanand Sarkar, MBBS, PhD
Mary Anderson Harrison Distinguished Professor in Cancer Research
Shawn Wang, PhD
Irene Shaw Grigg Distinguished Professor in Genetic Research
Jolene J. Windle, PhD

**SCHOLARS**
Harrison Scholars
Anthony Faber, PhD
Larisa Litovchick, MD, PhD
Andrew Poklepovic, MD
Victor Yazbeck, MD

Susan White Holsworth Palliative Care Scholar
Tara Albrecht, PhD, RN

**POSITIONS DESIGNATED FOR ACTIVE RECRUITMENT**
Natalie N. and John R. Congdon Sr. Endowed Chair in Cancer Research
Paul M. Corman, MD, Chair in Cancer Research
Lacy Family Chair in Cancer Research
Massey Alliance Scholar
Massey Cancer Center Chair in Cancer Cell Signaling
Massey Club Professorship
RGC Professorship for Cancer Research
Judith Talley Secor Chair
Harry and Judy Watson Distinguished Professorship
Diane Harris Wright Professorship

**MASSEY CLUB**
Massey Club is a leadership giving society comprised of dedicated supporters who have a strong tradition of unrestricted annual giving of $1,000 or more within a single fiscal year.

503 donor families
$1.4M in unrestricted annual giving
77% of unrestricted funds comes from Massey Club gifts

**SIGNATURE EVENTS HIGHLIGHTS**
Massey Challenge
70 teams and 490 individuals raised
$258,006 net

Women & Wellness
Signature Breakfast and Luncheon benefiting women’s cancer research raised
$163,176 net

Massey on the River
Hosted by the Massey Alliance and raised
$89,583 net

Richmond Brunch Weekend
Hosted by the Massey Alliance and As Told Over Brunch and raised
$34,317 net

**Endowed Chairs**
26 new treatment trials opened
9 new Cancer Prevention and Control studies opened
$10.5M philanthropic gifts and pledges
13,605 new gifts and pledges
10,973 donors
$750 average gift amount
$5.16M unrestricted funds raised
“When I was undergoing treatment, I reached a point when I didn’t think I could take any more. My doctor said to me ‘George, this cancer isn’t taking any days off and neither am I.’ That’s how I feel about fundraising for Massey—we can’t afford any days off. I don’t know who will raise that last dollar that finds a cure for cancer…but I don’t want to be the guy who stops too soon.”
— George Emerson
Advisory Board Chair, 2017–2018

**VCU Massey Cancer Center Advisory Board**
*July 1, 2017–July 1, 2018*

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*July 1, 2017–July 1, 2018*

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Keith Zirkle

**MASSEY ON THE RIVER**
This longtime signature event has also become Richmond’s traditional send off to summer. Hosted by the Massey Alliance in late September, the fundraiser includes a silent auction, live music, and delicious bites and drinks.

**Massey Challenge**
For 13 years, hundreds of participants in the Ukrop’s Monument Avenue 10k have decided to make their miles matter by creating fundraising teams for the Massey Challenge. On race day, Challenge participants create a sea of gold on the race course by wearing their commemorative t-shirts.

**Women & Wellness Breakfast and Luncheon**
Joan Lundeen was the keynote speaker at the 2018 event, and she shared her story of survivorship with more than 600 attendees. The fundraiser focuses on empowering our community with information about the latest advancements in research, treatment and prevention of women’s cancers.

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SUPPORT MASSEY
To make a contribution or inquire about ways to give or special opportunities, please call the Office of Development and External Relations at (804) 828-1450.

MAKE AN APPOINTMENT
Contact our patient coordinators at (804) 828-5116 or 1-877-4MASSEY.

VOLUNTEER
To get involved with special events and fundraisers, call (804) 628-1663.
To volunteer to serve patients, call (804) 828-0922.

www.masseycancercenter.org