THE HEALING POWER OF COMPASSION

For Dr. Kami Maddocks, the bonds she creates with her patients go far beyond the call of duty of a doctor and are the most rewarding aspect of her work.

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PULSE
A Publication for Friends of the Lymphoma Research Foundation

Pulse is a publication of the Lymphoma Research Foundation, providing the latest updates on the Foundation and its focus on lymphoma research, awareness and education.

The Lymphoma Research Foundation is devoted to funding innovative lymphoma research and serving the lymphoma community through a comprehensive series of education programs, outreach initiatives and patient services.

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The Healing Power of Compassion
When someone is diagnosed with a disease such as lymphoma, the relationship between a patient and their doctor is crucial. It is not only the cornerstone to their care, but also has a critical impact on their mindset and often even their long-term outcome. For Kami Maddocks, MD, the bonds she creates with her patients go far beyond the call of duty of a doctor and are the most rewarding aspect of her work.

Meet the 2021 Lymphoma Scientific Research Mentoring Program Scholars
The 2021 Lymphoma Scientific Research Mentoring Program class is the largest in its history boasting translational and clinical researchers pursuing a diverse range of research projects with a goal to improve patient outcomes.

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At 24 years old, Nina Luker’s life was turned upside down when she learned she had stage IV diffuse large B-cell lymphoma (DLBCL) — just three days before New York City went on lockdown due to the COVID-19 pandemic.

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LRF ANNUAL GALA

You’re Invited
SEPTEMBER 30, 2021  6-7 PM ET

You’re invited to a special event celebrating all we’ve accomplished together to eradicate lymphoma! Join us to cap off our 25th Anniversary, celebrate our distinguished honorees and be inspired by the significant achievements and advancements made in lymphoma research over the past year.

MAKE AN IMPACT. JOIN AS AN EVENT SPONSOR.
A variety of exciting packages and sponsorship benefits are available for the 2021 LRF Annual Gala. For more information about this year’s Gala, contact Rebecca Rausch, associate director of distinguished events, at 917 882 9036 or rrausch@lymphoma.org.

lymphoma.org/gala
Every five minutes, someone in the U.S. is diagnosed with lymphoma. Yet, what brings me hope — and I hope you as well — is that advances in research have improved the way people are diagnosed with and treated for lymphoma, and mortality rates have decreased dramatically over the past 25 years.

**Research is the key to finding cures.**

Last year as the pandemic raged on, we were forced to face a harsh reality: if we were unable to fund research at full strength, the pace of scientific discovery would slow, and we could potentially miss the next significant breakthrough. Supporters of the Lymphoma Research Foundation (LRF) were up to the challenge, however, and amidst the most challenging environment, they ensured that the Foundation could continue to invest in life-saving research, uninterrupted.

You will learn more about these vital research projects in this issue of *Pulse* as we continue our introduction of LRF’s 2021 grant class. This includes the newly expanded Lymphoma Scientific Research Mentoring Program (LSRMP), which this year welcomed its largest grantee class in the program’s history. The LSRMP is a first-of-its-kind, two-year program that provides hematology and oncology fellows and junior faculty a unique training experience and mentorship so they may build a successful career in lymphoma research. This vital program helps to ensure that the best and brightest scientific minds can commit their careers to the study of lymphoma. As a result, program participants, called LRF Scholars, are often regarded as rising stars in the field.

This issue also features a profile on LRF grantee Kami Maddocks, MD, from The Ohio State University Cancer Center. Dr. Maddocks describes the profound impact LRF’s Career Development Award had on her career and her goals as co-chair of the LSRMP. Her ascension to this important role marks the first time a former LRF grantee has led the program, illustrating the importance of supporting the next generation of leaders.

Today, because of your belief in our shared mission, we are closer than ever to eradicating lymphoma forever. Thank you for your unwavering support.

Sincerely,

Meghan Gutierrez
Chief Executive Officer
On June 4, 2021, the Lymphoma Research Foundation (LRF) went live on Zoom for the Team LRF Walk On! America. As a result of the continuing social distancing policy, LRF supporters from across the country gathered around their computers, phones and tablets for LRF’s virtual rally. Walk On! featured stories from lymphoma survivors, spotlights on fundraising teams throughout the country, and the Research All Stars honored nurses with the Caregiver of the Year recognition. Together, supporters of Walk On! raised more than $300,000 through virtual fundraisers and neighborhood walks and celebrations. To view the archive program, visit LRF’s YouTube channel at youtube.com/lymphomaresearch.

More than 80 golfers attended LRF’s Annual Golf Invitational, at Quaker Ridge Golf Club in Scarsdale, New York, on May 24, 2021. Under COVID-19 safety protocols, LRF hosted its first in-person outdoor event in more than a year. Golfers put their skills to the test at one of the genuine golfing treasures of metropolitan New York. Through the generosity of our sponsors and participants, the event raised more than $320,000 in support of the LRF’s mission. Thank you to event sponsors and co-chairs Steve Prince, Jim Stern, the Gantcher Family Foundation, David Messer, and Torque Capital Group for supporting this year’s Golf Invitational. To learn more about LRF’s ticketed fundraising events, visit lymphoma.org/ticketedevents.
Join the Circle of Hope:
Make a Difference in Our Community

As a Circle of Hope partner, you will join a group of committed donors who support the Lymphoma Research Foundation (LRF) on a monthly basis. This will ensure LRF can respond to the needs of our community and further groundbreaking research year-round.

To join the Circle of Hope, go to lymphoma.org/circleofhope to make your monthly commitment. For more information about this monthly giving program, please contact the development team at development@lymphoma.org.

No matter what else happens in our world, three things remain constant:

LRF, your support and our collective commitment to continue the research to find a cure.
RIDE ON!

15 YEARS OF THE RESEARCH RIDE
In 2007, Lymphoma Research Foundation (LRF) Scientific Advisory Board member and past chair, Dr. Bruce Cheson (Johns Hopkins Medicine/Center for Cancer and Blood Disorders) alongside his wife Christine, founded the Lymphoma Research Ride to give back to his patients, the medical community and raise funds to support life-saving research. Now, 15 years later and with more than $6.5 million raised, Dr. and Christine Cheson will join hundreds for a nationwide virtual celebration on September 25, and then hundreds in the D.C., Maryland and Virginia area for the 15th Annual Lymphoma Research Ride on October 3.

The Lymphoma Research Ride has grown to be one of LRF’s premier peer-to-peer fundraising events, bringing cyclists of all levels together to pedal for cures for lymphoma. Each year, dedicated Ride teams collectively raise, on average, $450,000 to support LRF’s research programs, and critical education and support services for lymphoma patients, survivors and their loved ones.

Responding to COVID-19, Keeping the Community Safe
In accordance with social distancing best practices, the live Ride in Barnesville, Maryland, will be limited to 200 riders and will have rolling start times. However, supporters from across the country are encouraged to join the Ride, map their own local route and fundraise to support LRF’s mission.

A GREAT FAMILY EVENT
The Lymphoma Research Ride is a fun family event and provides 10, 25 and 40-mile route options that are great for cyclists of all levels. To learn more about the Ride or to register, visit lymphoma.org/researchride.
THE LYMPHOMA RESEARCH RIDE

THROUGH THE YEARS

2007

With a goal of 80 riders and to raise $150,000, the inaugural Ride was a smashing success, beating its goal with 100 riders and $300,000 raised.

2010

The Ride reached more than $1 million raised since inception to support LRF.

2013

Senator Christopher Van Hollen presented Dr. Cheson with a congressional citation in recognition of his commitment to lymphoma patients and funding innovative research.

MEET THIS YEAR’S CHAMPION RIDE COUNCIL!

Register for the 15th Annual Lymphoma Research Ride by Monday, September 13, and join a special event to receive lymphoma research and treatment updates from this year’s Champion Ride Council. The Ride Council includes lymphoma experts from prominent institutions including Center for Cancer and Blood Disorders, Dana-Farber Cancer Institute and Georgetown Lombardi Comprehensive Cancer Center. Learn more at lymphoma.org/researchride.
“It is truly remarkable to witness the idea my wife and I had 15 years ago for a community fundraiser transform into a national event. Now anyone with a bike and passion to find cures for lymphoma can join us,” says Dr. Cheson. “We’re excited that everyone across the country can join us this year for the Ride and virtual celebration, and come together in Barnesville.”
Several days, weeks and months are dedicated to the awareness of different health conditions. Awareness days help to educate the public on these causes, advance cures through greater public awareness and provide a community for all those impacted by these diseases.
Due in large part to the Lymphoma Research Foundation’s (LRF) Advocacy Program, the month of September was designated Blood Cancer Awareness Month (BCAM) by the U.S. Congress in 2010. Blood Cancer Awareness Month (BCAM) is a time for members of the lymphoma community to harness their power, drive awareness, educate those around them and raise critical funds to support life-saving research.

For more than a decade, LRF has led the way in celebrating BCAM and World Lymphoma Awareness Day (September 15) through its grassroots initiative, Light It Red for Lymphoma, to shine a light on lymphoma, create fundraising opportunities to support innovative lymphoma research and make the future brighter for all those touched by this disease.

Maryland Governor Larry Hogan is a lymphoma survivor and longtime advocate for the lymphoma community. He has also been instrumental in arranging for the Maryland Government House (Governor’s Mansion) and Baltimore City Hall to light up red in partnership with LRF. He shares his insight on why elected officials believe awareness days are an important tool in helping to move innovation forward and advance cures. Lymphoma survivor and LRF advocate and ambassador, Paul Majkowski, shares why he is passionate about raising awareness for lymphoma, and shares his experience advocating for BCAM with LRF.

Continued on the next page
Why do elected officials feel it is important to recognize causes through awareness days/months?
Elected officials should take every opportunity and use every resource at their disposal to raise awareness about causes and issues that affect the people they serve. As governor, I have a unique platform that allows me to reach people not only in Maryland, but across the country and the world. Awareness days and months, particularly those related to cancers and other illnesses, are just one example of using that platform to support these causes and educate others about them.

How does shedding a light on these causes help to move solutions or innovation forward?
Many of the causes we’ve highlighted during my time as governor are diseases that often have no known cure, including various types of cancer. Through these awareness campaigns, we can encourage research that could one day lead to life-saving medical breakthroughs.

How do awareness months help foster a sense of community among those affected?
When I travel around the state, people often come up and thank me for helping to bring attention to a rare disease that has affected someone in their family, or for raising awareness of other causes that are important to them. During my own battle with cancer, I depended so much on the strong network of people around me. That sense of community is so important and often offers hope at a time when hope is needed most.

What can the public do to recognize these awareness days and mobilize their local government for support?
I would encourage anyone who wants to get involved to call or write to their local leaders, share information from trusted sources on social media platforms or join a local support group.

Why has Maryland helped to raise awareness of lymphoma and Blood Cancer Awareness Month?
Every five minutes, someone in the United States is diagnosed with lymphoma. After my own battle with Stage III non-Hodgkin lymphoma, I remain committed to raising awareness of this disease in the hope that we might one day live in a world without cancer. That’s why our state is always proud to partner with the Lymphoma Research Foundation to light up Government House red for Blood Cancer Awareness Month and World Lymphoma Awareness Day.

Why are you passionate about raising awareness for lymphoma?
As a lymphoma survivor, coming up on 25 years, I feel an obligation to give back and do what I can to further the Lymphoma Research Foundation’s mission to eradicate lymphoma and serve those touched by the disease. Satisfying the mission begins with awareness; for example, making our legislators aware of the impact of lymphoma on their constituencies, so that we can obtain funding for research. Likewise, awareness is vital to serving those touched by the disease, so that they know we are here to help and they are not alone. Lymphoma is unknown to many — until you’re told you have it and then ask what it is. Our work begins with awareness.

Part of your involvement with the Lymphoma Research Foundation has been as an LRF Advocate and helping to get September recognized as Blood Cancer Awareness Month by Congress. Can you share your experience?
The process involved outreach to legislators, including in-person visits, to make our ask for a resolution. I remember in such meetings, more often than not, the legislator (or more frequently, the staffer) did not know what lymphoma was, the scope of its impact, or the vitality and importance of the research being led by the Lymphoma Research Foundation and others. Making them aware was a first step, and armed with our resulting resolution for Blood Cancer Awareness Month, we had a new tool to make others aware as well.
How has BCAM evolved since its inception in 2010?
I think the evolution has gone from Blood Cancer Awareness Month being one of many Congressional resolutions to being a national month of awareness — a recognizable place on our calendar, an initiative around which we rally each year and build upon. Each year we grow and reach more and more people.

How does LRF recognize BCAM, and what is the purpose of Light It Red for Lymphoma?
For the past 11 years, LRF has been celebrating Blood Cancer Awareness Month and World Lymphoma Awareness Day (September 15) through Light It Red for Lymphoma. It serves as a rallying point to energize the community and, literally, provide illumination to that piece of paper declaring BCAM. What better way to create awareness than to see famous landmarks across the world lit red?

Why is awareness a vital tool in the race to find cures for lymphoma?
To ensure that lymphoma has a seat at the table and is treated as a priority when it comes to decisions relating to research funding. Such awareness is also important to attracting the top talent to lymphoma research.

“[Light it Red for Lymphoma] serves as a rallying point to energize the community and, literally, provide illumination to that piece of paper declaring BCAM.”
— Paul Majkowski

THIS SEPTEMBER,
LET US MAKE THE
FUTURE BRIGHTER FOR
ALL THOSE TOUCHED
BY THIS DISEASE

This September, harness your power, drive awareness and educate those around you by joining the Lymphoma Research Foundation’s Blood Cancer Awareness Month initiative Light it Red for Lymphoma! Light it Red for Lymphoma brings lymphoma awareness to the global conversation by lighting buildings, landmarks, bridges, monuments and homes red.

Visit lymphoma.org/lightitred to learn how you can light your home red, raise awareness on the web, support life-saving lymphoma research and view our list of Lighting Partners.
THE HEALING POWER OF COMPASSION

When someone is diagnosed with a disease such as lymphoma, the relationship between a patient and their doctor is crucial. It is not only the cornerstone to their care, but also has a critical impact on their mindset and often even their long-term outcome. For Kami Maddocks, MD of The Ohio State University Comprehensive Cancer Center, the bonds she creates with her patients go far beyond the call of duty of a doctor and are the most rewarding aspect of her work.

DREAMS OF BECOMING A DOCTOR

Born and raised in South Dakota, Dr. Maddocks always had her sights set on becoming a doctor. “My parents say that as a little girl, I always said I would become a doctor when I grew up,” says Dr. Maddocks. As a young child, she had dreams of becoming an OBGYN and delivering babies, but her interests changed drastically during her first year of medical school. “I was attending a biochemistry lecture about oncogenes and tumor suppressor genes, and I found the science so fascinating,” says Dr. Maddocks. “Following the lecture, I went back to my apartment with my roommate and said, ‘I just cannot believe that everybody would not want to be an oncologist, this science is so interesting.’”
“My parents say that as a little girl, I always said I would become a doctor when I grew up.”

With a newfound passion for oncology, Dr. Maddocks decided she wanted to pursue a career in hematology, and inspired by several mentors, she ultimately chose to focus on lymphoma and chronic lymphocytic leukemia (CLL). “I would watch my mentors in medical school and during my residency develop such amazing relationships with their patients,” says Dr. Maddocks. “I immediately knew I wanted to help make an impact on patients’ lives through the care I could provide them and be a part of developing research that could help change the future for those diagnosed with lymphoma.”

Upon completing her residency in internal medicine at the Mayo Clinic in Rochester, Minnesota, Dr. Maddocks moved to Ohio for her fellowship in hematology oncology at The Ohio State University Comprehensive Cancer Center. After her fellowship, she was offered a permanent position on the hematology team where she continues to work. Dr. Maddocks is currently an associate professor of clinical internal medicine in the Division of Hematology at The Ohio State University. As a clinical oncologist, she works as a hematologist specializing in treating patients with B-cell malignancies, and researches new therapies largely through evaluating new targeted therapies in clinical trials.

“I immediately knew I wanted to help make an impact on patients’ lives through the care I could provide them and be a part of developing research that could help change the future for those diagnosed with lymphoma.”

MOTIVATED BY PATIENTS
One of Dr. Maddocks’ favorite parts about being a clinical oncologist is that each day is different and offers new challenges. “I see patients two days a week, generate clinical research ideas, collaborate with others, write protocols, enroll patients in clinical trials, examine data and give lectures,” says Dr. Maddocks. “My job is both exciting and rewarding, and the best part is making an impact on my patients’ lives.” The relationships Dr. Maddocks forms with her patients not only mean everything to her but motivate her to help move research forward. “In many cases, I develop long-term relationships with my patients, and they become like family to me,” says Dr. Maddocks. “I am grateful for the opportunity to watch them grow, their families grow and see them experience life after lymphoma.”

Dr. Maddocks believes research is the most impactful way to help improve the lives of those diagnosed with blood cancer. Her goal is to find ways for her and her colleagues to improve patients’ quality of life through existing treatments, as well as examine new treatments that have the biggest potential to cure patients in the long run. “I often see patients with aggressive forms of lymphoma such as mantle cell (MCL) and diffuse large B-cell lymphoma (DLBCL), who as a result, can often present very sick,” says Dr. Maddocks. “When you treat them and they get better, it is a very satisfying feeling, but for those patients who do not respond as well to treatment, it challenges us as doctors to make it better and find new and more effective ways to treat them.”

“I am grateful for the opportunity to watch [my patients] grow, their families grow and see them experience life after lymphoma.”

Dr. Maddocks feels being a researcher has an invaluable effect on her work as a physician. “I think it keeps me more open-minded and always challenged,” says Dr. Maddocks. She says the rapid pace of scientific discovery not only motivates her to continue to do better for her patients but allows her to provide hope to her patients who may be struggling. “A lymphoma diagnosis can be extremely overwhelming, but sharing information about potential new treatments with my patients offers them comfort and allows them to have a promising outlook on their journey ahead.”

IMPROVED TREATMENTS
Currently, Dr. Maddocks’ clinical research involves serving as an investigator on several clinical trials in lymphoma, most of which are evaluating non-chemotherapeutic and targeted approaches to the treatment of lymphoma. “As science advances, and we learn more about lymphoma, we discover more about how to target lymphoma instead of using traditional chemotherapy which is meant to attack everything,” says Dr. Maddocks. “The whole point of undergoing treatment is to be able to live a life after lymphoma, and many novel therapies not only offer

Continued on the next page
“A lymphoma diagnosis can be extremely overwhelming, but sharing information about potential new treatments with my patients offers them comfort and allows them to have a promising outlook on their journey ahead.”

She is currently working on clinical trials for mantle cell lymphoma in both frontline and relapsed settings and is investigating the use of targeted therapies for treatment. Dr. Maddocks is also testing tailoring therapy based on minimal residual disease. “Our goal is to treat patients with the best and most effective therapies by targeting their responses without the risk of over- or under-treating them,” she says.

Due to the tremendous progress in the field of lymphoma research, Dr. Maddocks sees much promise for the future of her patients but also knows that there is far more work to be done. She believes that this can be achieved through a better understanding of the disease and a greater investment in lymphoma research and the scientists who move the needle forward. Dr. Maddocks says that research programs, such as the Lymphoma Research Foundation’s (LRF), help to foster vital relationships between researchers and give them tools they need to advance cures.

THE LRF EFFECT
In 2014, Dr. Maddocks received an LRF Clinical Investigator Career Development Award (CDA) (a grant awarded to advanced fellows or junior faculty members to facilitate their transition to independent clinical researchers). She says that the award was critical to her career and getting her research off the ground. “The grant allowed me to have protected time to conduct my research and was a huge turning point in my career,” says Dr. Maddocks. Since then, Dr. Maddocks served as a speaker at several LRF patient education programs, was a faculty member for LRF’s Lymphoma Scientific Research Mentoring Program (LSRMP), and is currently co-chair of the LSRMP alongside Scientific Advisory Board members Ari Melnick, MD (Weill Cornell Medicine), Brian Link, MD (University of Iowa), and Christian Steidl, MD (BC Cancer, Vancouver).

She is excited by the opportunity to pay it forward by mentoring young investigators through the LSRMP. Dr. Maddocks understands firsthand the role that mentoring can play in a researcher’s career. “As researchers, we face challenges early in our careers and often don’t know where to turn for help,” says Dr. Maddocks. “I think to continue to evolve the science and the research, we need to train and support our early career scientists who are quite literally the future.” She finds it extremely rewarding to share her experiences with young investigators and to help provide a community to them. “The lymphoma community is so collegial and inclusive, and I think being exposed to that positive environment early in their career is beneficial for young investigators to feel a sense of belonging to that community,” she says.

As co-chair of the LSRMP, Dr. Maddocks hopes to help early career scientists prepare for careers in lymphoma research and clinical investigation. She is also enthusiastic about the expansion of the program to include a translational track, as she sees it as a synergistic approach. “Combining translational and clinical faculty allows for people to see each other’s perspectives and really understand what drives research from a lab to the clinic,” says Dr. Maddocks.

Most importantly, Dr. Maddocks receives a great amount of hope from being a part of LRF’s research programs and says it reinvigorates her. “I think it renews my interest in what I’m doing and gets me excited to see what these young investigators can accomplish for the future of lymphoma research.”

patients the ability to live longer, but they are better tolerated, and they improve patient’s quality of life both now and in the future.”
26th Annual North American Educational Forum on Lymphoma
October 15-17, 2021

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MEET THE

2021 LYMPHOMA SCIENTIFIC RESEARCH MENTORING PROGRAM SCHOLARS

The Lymphoma Research Foundation’s (LRF) Lymphoma Scientific Research Mentoring Program (LSRMP) is a first-of-its-kind education and mentoring program for junior scientists who wish to focus on lymphoma clinical research.

The primary goal of the LSRMP is to retain its talented participants — called LRF Scholars — in the field of lymphoma by providing mentoring and education programming and fostering research collaboration among expert faculty and grantees. This year, LRF expanded the LSRMP to foster and develop the next generation of laboratory and translational researchers and to bridge the gap between translational and clinical research.

Led by the 2021 LSRMP Clinical Research co-chairs Brian Link, MD (The University of Iowa) and Kami Maddocks, MD (The Ohio State University Comprehensive Cancer Center), and Laboratory/Translational Research co-chairs Ari Melnick, MD (Weill Cornell Medicine) and Christian Steidl, MD (BC Cancer, Vancouver), the new class of LRF Scholars is the largest in the program’s history. The class is boasting translational and clinical researchers pursuing a diverse range of research projects with a goal to improve patient outcomes.

THE 2021 LSRMP CLASS is the largest in the program’s history

CLINICAL RESEARCH LRF SCHOLARS

DAVID A. BOND, MD
OSUCCC-JAMES
Eric Cohen James Distinguished Scholar

Diffuse large B-cell lymphoma (DLBCL) is the most common type of non-Hodgkin lymphoma (NHL). Since DLBCL can advance quickly, it usually requires immediate treatment, which leads to disease remission in a large number of patients. However, there is an unmet need for more effective therapies in the second and third line setting. Developing immunochemotherapy has shown activity in small studies of heavily pre-treated patients with prolonged remissions achieved in some patients. Dr. David Bond’s LRF research project is a clinical trial exploring the monoclonal antibody therapy tafasitamab combined with the oral drug lenalidomide (Revlimid) followed by tafasitamab combined with the chemotherapy ICE (ifosfamide, carboplatin and etoposide) for treatment of DLBCL patients who have relapsed after their first treatment. “The goal of this treatment is to allow for a higher proportion of patients with relapsed diffuse large B-cell lymphoma to achieve complete remission and be able to proceed to curative treatment with autologous stem cell transplant,” he explains.

Dr. Bond obtained his MD from Indiana University School of Medicine. He completed his residency, fellowship and is currently a clinical assistant professor at Ohio State University. His interest in lymphoma is fueled by a personal experience with NHL and several mentors who have been crucial examples of combining exceptional clinical care with a clinical investigation in their careers to advance the treatment of patients with hematologic malignancies. “The inspiration for this project is in part our institutional experience with the combination of tafasitamab and lenalidomide, with Ohio State University contributing to both early clinical and preclinical work with this combination, and my experience caring for
patients with relapsed diffuse large B-cell lymphoma recognizing the limitations of our current standard of care treatments,” Dr. Bond states.

After completing his LRF research project, Dr. Bond aspires to become an independent and established lymphoma clinical investigator with ongoing trials and a clinical practice dedicated to patients with lymphoma. “I have benefited greatly from the example and mentorship of faculty at a more advanced stage in their careers, as previously mentioned, and I hope to have mentees of my own in 10 years’ time and have the chance to contribute to future generations of lymphoma clinical researchers.”

Dr. Johnson became fascinated with the palliative and Inspired by their clinical and research careers in lymphoma, mentors Dr. Jeremy Abramson and Dr. Areej El-Jawahri. while in medical school through the influence of his Dr. Johnson developed a strong interest in lymphoma side effects and complications.”

“Treatment better with improved quality of life and reduced a supportive care intervention to help patients tolerate treatment and tailoring the treatment to the patient. However, researchers lack enough data to understand which patients are the most likely to have impaired quality of life, serious side effects and complications.

Dr. P. Connor Johnson’s LRF research project is a longitudinal research study to identify the patients who are likely to have these poor outcomes. “Patients in this study are followed over time, and we collect information about their quality of life, physical and psychological symptom burden, side effects, complications, and health care use,” Dr. Johnson says. Before treatment is started, Dr. Johnson and team will obtain information using a self-reported screening test for older adults and measure muscle mass on CT scans to see if these factors can predict who will have poor outcomes with treatment. Dr. Johnson hypothesizes that the results of this work will help improve the care of older adults with fast-growing lymphomas. “We will use the information gained from this study to design a supportive care intervention to help patients tolerate treatment better with improved quality of life and reduced side effects and complications.”

Dr. Johnson developed a strong interest in lymphoma while in medical school through the influence of his mentors Dr. Jeremy Abramson and Dr. Areej El-Jawahri. Inspired by their clinical and research careers in lymphoma, Dr. Johnson became fascinated with the palliative and supportive care needs and mitigating the therapy toxicity of patients with lymphoma, patients receiving cellular therapy and lymphoma survivors.

Dr. Johnson obtained his MD from Harvard Medical School and subsequently completed his residency at Massachusetts General Hospital and hematology/oncology fellowship at Dana-Farber Cancer Institute. Presently an oncologist at the Center for Lymphoma - Massachusetts General Hospital, Dr. Johnson aims to conduct practice-changing clinical research trials focused on addressing the palliative and supportive care needs and mitigating the therapy toxicity of patients with lymphoma, patients receiving cellular therapy and lymphoma survivors. “I am so grateful for the opportunity to participate and have met countless mentors and peers who inspire me as a physician and researcher,” says Dr. Johnson. “I really cannot put into words how transformative the program is for my career and how it impacts research for patients with lymphoma.”

Older adults with fast-growing lymphomas are often treated with chemotherapy which has the potential to cure some of these diseases. However, understanding which patients will have serious side effects, complications and loss of their quality of life is very important. This information is critical for making decisions about treatment and tailoring the treatment to the patient. However, researchers lack enough data to understand which patients are the most likely to have impaired quality of life, serious side effects and complications.

Cutaneous T-cell lymphoma (CTCL) is a type of skin lymphoma usually managed as a chronic disease without a standard frontline therapy, and treatment plans typically vary from patient to patient. Patients with CTCL may experience itching, pain and swelling, and cosmetic changes, which profoundly affect their quality of life. Clinicians often informally use changes in patient symptoms when deciding whether to continue or change therapy. Despite the significant symptom burden experienced by patients with CTCL, and the clinical importance of patient symptoms in planning treatments, patient-reported outcomes (PROs) are not formally evaluated as a measure of treatment response. Dr. Niloufer Khan’s LRF research project is to understand how patient symptoms, as measured by PRO instruments, can be incorporated into disease response criteria for CTCL. “My long-term goal is to incorporate measurement of PROs into the staging of CTCL, so we can better understand how our treatments affect our patients’ quality of life,” Dr. Khan explains.

Dr. Khan is currently a Medical Oncologist at Memorial Sloan Kettering Cancer Center. Her interest in lymphoma began during her first year of medical school at Case Western Reserve University School of Medicine. “I loved the opportunities for research and for building critical connections with patients during such a formative period of their life,” Dr. Khan shares.

Continued on the next page
“We are getting closer to providing a cure or long-term control for many lymphomas,” says Dr. Khan. “As we improve disease control, there is a real opportunity for understanding patient-reported symptoms and short-term toxicities of treatment and enhancing quality of life for cancer survivors, particularly for adolescents and young adults.” As a fellow and now attending physician at Memorial Sloan Kettering Cancer Center, Dr. Khan - mentored by Dr. Alison Moskowitz and LRF SAB member Dr. Steven Horwitz - continues to explore her interest in PROs and toxicities within the field of CTCL.

Over the next decade, Dr. Khan plans to continue her research efforts to understand toxicities and patient reported outcomes for novel agents and improve cancer care delivery for patients with rare lymphomas.

More than two-thirds of newly diagnosed diffuse large B-cell lymphoma (DLBCL) patients are excluded from participating in clinical trials. Over the last two decades, several clinical trials have attempted to add novel agents to R-CHOP (rituximab [Rituxan], cyclophosphamide [Cytoxan], doxorubicin [Adriamycin], vincristine [Oncovin], and prednisone), but none have been successful due to the possible exclusion of high-risk DLBCL patients. Dr. Arushi Khurana’s LRF research project is focused on identifying critical differences in the patient/disease characteristics and management strategies between the patients treated on clinical trials and those excluded from trials. “The goal of my research is to identify which of these patients can be rescued by modernizing trial criteria in ways that do not substantially increase toxicity in these patients,” she states.

Dr. Khurana is an Advanced Hematology fellow in the Clinical Cell Therapy/Lymphoma group at Mayo Clinic, Rochester. She obtained her medical degree from Maulana Azad Medical College in New Delhi, India, and completed her residency at the University of Connecticut in Farmington, Connecticut. Dr. Khurana’s interest in lymphoma stems from her personal experience witnessing her grandmother’s journey with DLBCL. “This has stayed with me throughout my training in internal medicine, hematology and now lymphoma. It’s also why my research goals are focused on improving outcomes in lymphoma patients, especially those underrepresented in clinical trials and who are more vulnerable to the side effects of treatment,” says Dr. Khurana. “My current project originated in the clinic while attempting to enroll several patients on clinical trials in newly diagnosed DLBCL.”

In the next 10 years, Dr. Khurana would like to be an established and independent clinical investigator. “I hope that with the knowledge gained from my research and time in this program, I would be able to design clinical trials which cater to those underrepresented in the trials,” she explains. “We have seen several strides in this direction from the Food and Drug Administration, American Society of Clinical Oncology and Friends of Cancer Research, and I hope to be involved in these efforts in the future.”

Adult T-cell leukemia/lymphoma (ATLL) is an aggressive, generally incurable type of non-Hodgkin lymphoma (NHL) caused by infection with the human T-cell leukemia virus type 1 (HTLV-1). This virus is commonly found in Latin American and Caribbean countries, Japan, Africa and some areas of Australia. The virus is mainly transmitted through breastfeeding, sharing needles, blood transfusion and sexual intercourse, with more than 10 million people infected worldwide. ATLL can present in the blood (named as leukemic ATLL) or in the lymph nodes (named as lymphomatous ATLL). Both presentations are lethal, and current therapies do not provide a cure, except for patients who can undergo stem cell transplants from a donor. There is an unmet need to better understand this disease since the clinical features of ATLL vary depending on the geographic location. Dr. Luis Malpica Castillo’s LRF research project explores these patients’ clinical features and outcomes and characterizes genomic drivers that could impact survival. He foresees that the results from this study will provide a wealth of information in the diagnosis and management of this rare but challenging disease.

Presently, Dr. Malpica Castillo is an assistant professor in the Department of Lymphoma/Myeloma at The University of Texas MD Anderson Cancer Center. After his first year in medical school at the Universidad Peruana Cayetano Heredia in Peru, Dr. Malpica Castillo became passionate about researching infectious diseases. “Having HTLV-1 as a prevalent infection in Peru, HTLV-1-associated conditions became my field of study with emphasis during last years in ATLL,” he says. “I later found cancer-associated infections an interesting field for study, especially in developing countries.”

In the future, Dr. Malpica Castillo would like to conduct research within the field of global oncology. “I would like to
actively participate in improving access to novel therapies for those living in less developed areas,” he says. “Promising therapies such as CAR T-cell therapy, bi-specific antibodies, immunotherapy, among others have been in the market for almost a decade and remain a dream for access in many countries.”

Dr. Mulvey's first research experience was working as a research assistant in a cancer immunology laboratory studying the effects of chemokine receptor and ligand disruption in preclinical cancer models. This sparked her interest in cancer immunology during her medical training at New York Medical College. As a medicine resident at Weill Cornell Medicine, she independently conducted a retrospective review of central nervous system (CNS) prophylaxis in DLBCL and had the opportunity to present her research at the 59th American Society of Hematology (ASH) Annual Meeting. As a clinical fellow in hematology and medical oncology at Weill Cornell Medicine, Dr. Mulvey continues to advance her involvement in lymphoma research and will be pursuing a career in clinical research.

In 10 years time, Dr. Mulvey would like to continue her involvement with lymphoma clinical research issues. “I would like to continue to work closely with translational researchers to build rationally-designed protocols that exploit the diverse biology underlying lymphoma,” she says. “I will also strive to carefully consider the impact these treatments will have on patients’ lives and plan to include patient-reported outcomes in my research endeavors.”

JASON T. ROMANCIK, MD
WINSHIP CANCER INSTITUTE OF EMMORY UNIVERSITY
Runge Lymphoma Project Scholar

Diffuse large B-cell lymphoma (DLBCL) and follicular lymphoma (FL) are the two most common types of non-Hodgkin lymphoma, with one categorized as aggressive (fast-growing) and one considered indolent (slow-growing), respectively. First-line treatment for DLBCL yields remission in most patients, and patients with FL can live for many years with the disease. However, FL remains incurable, and both present an unmet need for second-line treatment. For her LRF research project, Dr. Erin Mulvey is conducting a phase I clinical trial combining two oral agents, tazemetostat (Tazverik®) and venetoclax (Venclexta®), to treat patients with FL or patients with DLBCL whose disease has returned or progressed after at least one prior treatment. “Our primary goal will be to demonstrate that these two agents are safe and well-tolerated by patients when given together,” she says.

Dr. Mulvey’s first research experience was working as a research assistant in a cancer immunology laboratory studying the effects of chemokine receptor and ligand disruption in preclinical cancer models. This sparked her interest in cancer immunology during her medical training at New York Medical College. As a medicine resident at Weill Cornell Medicine, she independently conducted a retrospective review of central nervous system (CNS) prophylaxis in DLBCL and had the opportunity to present her research at the 59th American Society of Hematology (ASH) Annual Meeting. As a clinical fellow in hematology and medical oncology at Weill Cornell Medicine, Dr. Mulvey continues to advance her involvement in lymphoma research and will be pursuing a career in clinical research.

In 10 years time, Dr. Mulvey would like to continue her involvement with lymphoma clinical research issues. “I would like to continue to work closely with translational researchers to build rationally-designed protocols that exploit the diverse biology underlying lymphoma,” she says. “I will also strive to carefully consider the impact these treatments will have on patients’ lives and plan to include patient-reported outcomes in my research endeavors.”

Dr. Mulvey is conducting a phase I clinical trial combining two targeted, non-chemotherapy medications — obinutuzumab (Gazyva®) and acalabrutinib (Calquence®) — for the first-line treatment of FL. “We hope that in addition to inducing prolonged remissions, this regimen will be well-tolerated and will delay the need for treatment with conventional chemotherapy.” He proposes to assess the quality of life and side effects using patient-reported outcome (PRO) questionnaires to capture health outcomes directly from the patient who experienced it as opposed to those reported by the physician or other members of the treatment team. “These assessments will help us better define the risk/benefit profile of this regimen and will help us to determine whether or not to pursue this combination further as a first-line treatment regimen in follicular lymphoma,” he explains.

Dr. Romancik’s LRF research project focuses on conducting a clinical trial investigating two targeted, non-chemotherapy medications — obinutuzumab (Gazyva®) and acalabrutinib (Calquence®) — for the first-line treatment of FL. “We hope that in addition to inducing prolonged remissions, this regimen will be well-tolerated and will delay the need for treatment with conventional chemotherapy.” He proposes to assess the quality of life and side effects using patient-reported outcome (PRO) questionnaires to capture health outcomes directly from the patient who experienced it as opposed to those reported by the physician or other members of the treatment team. “These assessments will help us better define the risk/benefit profile of this regimen and will help us to determine whether or not to pursue this combination further as a first-line treatment regimen in follicular lymphoma,” he explains.

Dr. Romancik received his MD at Rush Medical College and completed his residency at Washington University in St. Louis/Barnes-Jewish Hospital. He is currently a third-year hematology/oncology fellow at Emory University pursuing a career as a clinical researcher in malignant hematology, focusing on lymphoma. Dr. Romancik was drawn to lymphoma due to the vast array of therapies used to treat the disease. “We utilize everything from chemotherapy, immunotherapies and novel oral agents to bone marrow transplant and CAR T-cells,” says Dr. Romancik. “I am drawn to the fact that as lymphoma specialists, we can become experts in all these treatment modalities while building strong relationships with patients to help guide their care over the course of their disease.”

His career goal is to become an independent clinical researcher leading clinical trials in cell therapy and bone marrow transplant. “The LSRMP Workshop was an invaluable experience,” he shares. “Working with the
panel of lymphoma experts not only improved the design of my current research project but will also improve the quality of my future work as I continue to progress towards becoming an independent clinical researcher.”

FROM THE FIELD

SUCHITRA SUNDARAM, MD
MOUNT SINAI ICAHN SCHOOL OF MEDICINE

Over the past several years, targeted therapy with small molecule inhibitors and antibodies has replaced chemotherapy as the standard treatment for patients with chronic lymphocytic leukemia (CLL). Despite these significant advances, CLL remains incurable for a majority of patients. While most patients enjoy long-lasting remissions with existing novel therapies, it is becoming apparent that a subset of those (especially those with high-risk CLL genetics) eventually develop resistance to these treatments and have relapsed disease. Thus, new treatment strategies that target pathways of resistance are needed.

Dr. Sundaram’s preclinical work in the lab showed promise in the ability of an epigenetic therapy called bromodomain protein inhibitor (BRD4 inhibitor) in enhancing the anti-cancer effect of venetoclax (Venclexta®) in CLL cells and potentially target some of these resistance pathways. As her LRF research project, Dr. Suchitra Sundaram proposes a clinical trial to test this BRD4 inhibitor in combination with venetoclax in patients with CLL who have relapsed or are refractory to previous treatments. “By combating drug resistance, our hope with this clinical trial is for patients to have longer remissions, translating into fewer relapses,” she says.

Dr. Sundaram began her medical career at the Lokmanya Tilak Medical College in Mumbai, India. She went on to intern and complete her residency at the Cleveland Clinic Foundation. She is a physician-investigator at Roswell Park Comprehensive Cancer Center with a focus on lymphoid malignancies. In the summer of 2021, Dr. Sundaram will transition to the Icahn School of Medicine at Mount Sinai where she will continue her lymphoma research.

“I derive my commitment to research from my patients who, through their cancer treatment journey, have taught me lessons on courage, resilience and defying the odds,” Dr. Sundaram shares. “This has encouraged me to persevere in my research efforts and to never give up.”

In 10 years’ time, Dr. Sundaram would like to become an independent clinical investigator in lymphoma/CLL. “I hope to further the existing scientific knowledge of lymphoma and continue developing novel targeted treatments and immunotherapeutic strategies for patients with lymphoma and CLL,” she states. She would also like to collaborate with philanthropists and scientists in her home country, India, to improve accessibility to novel drugs for lymphoma and CLL. “The LSRMP has provided me with excellent mentorship and feedback in transforming my research protocol into a feasible study. The LSRMP workshop also gave me some valuable tips on career development and extensive networking opportunities with other early-career scientists.”

LABORATORY/TRANSLATIONAL RESEARCH LRF SCHOLARS

TOMOHIRO AOKI, MD, PhD
BC CANCER RESEARCH CENTRE

Hodgkin lymphoma (HL) treatment relies on multimodality treatment with standard chemotherapy, radiation therapy, and autologous or allogeneic stem cell transplantation in cases of relapsed disease. For his LRF research project, Dr. Tomohiro Aoki aims to reveal how genetic changes of the tumor cells are associated with the spatial and functional properties of the microenvironment, which can lead to developing biomarkers that provide information about the prognosis of HL patients, new drugs and personalized treatments.

Dr. Aoki obtained his medical degree from Chiba University in Chiba, Japan, and practiced as a hematologist, medical oncologist and clinical researcher for 10 years. “In my career as a clinician, I have treated numerous patients diagnosed with cancers including lymphoid cancers and witnessed many of my patients suffering from progressive and refractory diseases,” he shares. “From this experience, I felt a strong desire to pursue translational research to improve patient survival by developing more effective therapies.”

Dr. Aoki then acquired his PhD at the Nagoya University in Nagoya, Japan, where he developed skills in laboratory medicine and knowledge in cancer biology and tumor microenvironment. “My primary career interest is to become a physician-scientist in translational research to improve patient outcomes by developing biomarkers and effective targeted therapies,” Dr. Aoki explains.

Through postdoctoral training, he hopes to further his research skills, which he believes are necessary to become an independent researcher. With his already significant contribution to lymphoma research, he hopes to continue a career in lymphoma research to improve patient outcomes.
In recent years, several new therapies have been investigated for treating T-cell lymphomas. Some of these medicines work in up to 50 percent of patients whose lymphoma has relapsed or has not responded to other treatments. However, there is limited understanding into the intricacies of these treatments. Furthermore, there is a lack of knowledge of combining newer therapies safely and effectively or combining them with established treatments such as chemotherapy to maximize the chance of the lymphoma responding. Dr. Zachary Epstein-Peterson’s LRF research project aims to better understand how and why these therapies work, understand T-cell lymphomas at a fundamental level and uncover new channels for treating T-cell lymphomas. “We may be able to match patients more effectively with treatments based on characteristics in the tumor,” he states.

Dr. Epstein-Peterson is currently a research fellow in The Andrew Intlekofer Lab at Memorial Sloan Kettering Cancer Center. He received his MD from Harvard Medical School, and subsequently he completed his residency at the University of Washington Affiliated Hospitals, NYP-Weill Cornell Medical Center, and chief residency at Memorial Sloan Kettering Cancer Center. Dr. Epstein-Peterson’s fascination with lymphoma research comes from the areas of high unmet clinical needs and lack of understanding the underlying “how and why” of lymphoma. Despite these challenges, recent advancements are showing promise in effectively and safely treating T-cell lymphomas, and I saw a tremendous opportunity to be able to join these efforts and build upon them,” he states.

Dr. Epstein-Peterson’s goal is to secure a faculty position focused on caring for patients with lymphoma and to continue to grow his research efforts and skills relevant to that field. “Within 10 years, I hope to take on a leadership role in translational research efforts in T-cell/cutaneous lymphomas, helping to plan and execute mechanism-driven clinical trials and closely liaising with laboratory and computational collaborators for correlative science in these efforts.”

Two genomic studies revealed that 8 to 16 percent of diffuse large B-cell lymphoma (DLBCL) patients harbor loss-of-function mutations in the gene TOX (TOXLOF). TOX is a transcription factor that regulates lymphoid tissue development. TOXLOF events co-occur with mutations that result in constitutive activation of the NF-κB pathway. NF-κB is a family of transcription factors that control the expression of genes involved in survival, proliferation, stress responses and inflammation. These associations suggest a potential oncosuppressive role for TOX in DLBCL, especially in the context of NF-κB activation. However, whether a mechanistic link between the activity of TOX and NF-κB exists is not known, nor is it known how TOXLOF modifies the biology of NF-κB-driven lymphomas. Dr. Rossella Marullo’s LRF research project is to elucidate the molecular mechanism(s) by which lack of TOX expression sustains NF-κB lymphomagenesis. “Understanding the biology of NF-κB lymphomas is of high clinical relevance, as it will allow identifying novel therapeutic opportunities toward a subgroup of aggressive DLBCLs for which no curative therapy is currently available,” she notes.

Dr. Marullo received her MD at the University of Messina School of Medicine in Messina, Italy, and completed her PhD at the School of Medicine, University of Messina, in Italy, and Emory University. She is presently an instructor in medicine at Weill Cornell Medicine where she is fully dedicated to translational research. Her devotion to lymphoma research comes from her admiration of the clinical research process. “What I like about research is the teamwork underlying any breakthrough in cancer. The research cycle flows from unsolved clinical questions to laboratory findings back to the patients’ bedsides. Thus, progress in cancer research results from a collaborative effort of laboratory scientists, clinical researchers, patients and many others,” Dr. Marullo says. “Indeed, the most gratifying aspect of my job is to be aware that the knowledge generated by my research will be used to design novel treatments for patients.”

ROSSELLA MARULLO, MD
WEILL CORNELL MEDICINE

Continued on the next page
Furthermore, I was able to connect with many peers provided practical advice and real-life experiences. Furthermore, I was able to connect with many peers and senior scientists to start building a network of potential collaborators.”

**Coraline Mlynarczyk, MS, PhD**

**WEILL CORNELL MEDICINE**

Diffuse Large B Cell Lymphoma (DLBCL) is a heterogenous B-cell malignancy, with each patient presenting with a heavy and diverse burden of alterations in their DNA. Therefore, finding a cure for DLBCL is a challenge that involves developing multiple therapeutic options tailored for each patient. This requires the understanding of how each one of these alterations contributes to and shapes the disease. Dr. Coraline Mlynarczyk’s LRF research project aims to identify how altered B cells gain a fitness advantage that allows them to resist treatment and what their metabolic dependencies are. “This work will provide the mechanistic basis for and identify the metabolic vulnerabilities of difficult-to-treat DLBCLs and contribute to designing new therapeutic approaches for currently incurable patients,” she states. “Furthermore, DLBCL develops from a specific and transient population of B cells that take part in the adaptive immune response and understanding how immune processes are regulated is necessary to design effective treatments.”

Dr. Mlynarczyk obtained her MS at the University Pierre and Marie Curie in Paris, France, and received her PhD from the University of Paris Diderot in Paris, France. Her passion for lymphoma research is driven by her love for discovering how things work. “Lymphoma research is especially inspiring due to the complexity of the cells at the origin of B cell lymphoma and the resulting heterogeneous nature of the disease,” Dr. Mlynarczyk says. Within the next ten years, Dr. Mlynarczyk hopes to be running her own independent research lab. “I also hope I can maintain close interactions with the LRF community, who has been tremendous in supporting our research, in fostering new collaborations, and in creating meaningful contacts between labs, the clinic, and patients.”

**Follicular lymphoma (FL) is a generally slow-growing cancer with an overall favorable prognosis. One subset, known as FL3B, has a distinctly worse clinical outcome with limited treatment options. The same treatments used to manage the other, less aggressive FL subsets are significantly less effective for FL3B. Similarly, the regimens used to treat aggressive diffuse large B-cell lymphoma (DLBCL) fail to cure almost half of patients with FL3B. Given the limited treatment options, a better understanding of the genetic mutations characteristic of FL3B is needed, as is cataloging the different types of immune cells that infiltrate these tumors. This information is critical to identifying novel and more effective therapies for this disease subset.**

Dr. Patrizia Mondello’s LRF research project proposes to define the landscape of genetic alterations that are frequently found in FL3B tumors and to characterize the immune cells that are critical for managing this subset of follicular lymphomas using cutting-edge technology, including targeted genetic sequencing and mass cytometry. “We have assembled one of the largest cohorts of tumors from patients with FL3B with the corresponding clinical data regarding treatment and outcomes, which will be used for this analysis. This work will fill an unmet need to understand the biology of FL3B and lay the groundwork for introducing targeted therapies as novel avenues of treatment for this otherwise deadly disease,” explains Dr. Mondello.

She completed her MD, residency and fellowship at the University of Messina School of Medicine in Messina, Italy. Given her interest in the molecular mechanisms underlying cancer development, Dr. Mondello enrolled in a PhD program in Cellular Biology and Experimental Medicine under the mentorship of past LRF Scientific Advisory Board Member (SAB) Dr. Anas Younes. “In the Younes’s Lab, I explored the impact of novel therapeutic agents aimed at disrupting well-defined oncogenic signaling pathways, including PI3K, BCL2 and NF-kB. This work has led to the clinical investigation of four new combination therapies for diffuse large B-cell lymphoma. She then pursued postdoctoral studies at Weill Cornell in the laboratory of LRF grantee SAB member Dr. Ari Melnick, “a world-renowned expert in transcription and epigenetics,” she adds. The focus of her postdoctoral research was aberrant epigenetic programming and development of precision guided therapies in B-cell lymphoma. It was during this time that she was truly able to recognize the importance of a physician-scientist, someone well versed in both worlds of
Dr. Mondello’s passion for lymphoma comes from a personal experience; watching a patient go through her journey with Hodgkin lymphoma (HL). “She was an only child, an energetic 20-year-old who should have been spending the prime of her youth hanging on the beach with her friends that summer, listening to music and shopping for a new pair of shoes. Instead, she was sitting in front of me, alone, a single window in a barren white-walled room with just her hospital bed and her IV dripping saline,” Dr. Mondello recalls. “The day before she passed, she said something I will never forget, ‘Please find a cure to help me.’ Her words will continue with me throughout my career.”

In five years, Dr. Mondello sees herself as an independent investigator in a leading research institution in the United States where she can run an independent laboratory and maintain clinical activities as a medical oncologist. “My future interests lie in studying how chromatin modifiers cooperate with transcription factors to enable the phenotypic changes that occur in B-cells during humoral immune response, and how mutations of the respective genes cause aberrant epigenetic reprogramming of B-cells to drive malignancies,” she says. “I believe that further understanding of aberrant epigenetic programming will lead to the identification of more powerful and less toxic targeted treatments for patients with lymphoma.”

Chimeric antigen receptor (CAR) T-cells have been incredibly beneficial for patients with lymphoma who have relapsed after chemotherapy. Unfortunately, however, some patients will still relapse after CAR T-cell therapy. Dr. Brian Sworder’s LRF research project is centered around using a liquid biopsy, a method to monitor and study cancer from a blood draw and discover mechanisms that drive treatment success and failure after CAR T-cell therapy. “My ultimate hope is that this will lead to more effective treatments in the future,” he says.

Dr. Sworder obtained his MD and PhD from Boston University School of Medicine. He went on to complete his residency at Icahn School of Medicine at Mount Sinai. Dr. Sworder is now a fellow at Stanford University School of Medicine, where he has joined the laboratory of LRF Scientific Advisory Board (SAB) member Dr. Ash Alizadeh in hopes of combining his scientific and clinical training to complete his proposed project, with the ultimate goal of designing a novel patient-specific immune-based therapy for non-Hodgkin lymphoma (NHL).

Dr. Sworder initially chose to pursue a career in hematology and oncology based on his experience caring for cancer patients as a medical student and a resident. “Upon entering my fellowship training, I became fascinated by lymphoma in particular and have been especially intrigued, too, by how immunotherapy, especially CAR T-cells, have improved outcomes for so many patients,” he explains. When asked where he sees his career going in the next 10 years, Dr. Sworder shares, “My goal is to become an independent physician-scientist who both cares for lymphoma patients and directs a research laboratory performing translational research.”

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**HELP ACCELERATE THE PACE OF LYMPHOMA RESEARCH**

We are proud to present the largest Lymphoma Scientific Research Mentoring Program (LSRMP) class in the program’s history, made possible by the generosity of our dedicated donors including the Chike Springer Foundation; the family of Clarence G. Henry, Jr. (in memoriam); the family, friends and colleagues of LRF Director Eric Cohen (in memoriam); LRF Ambassadors; the Peykoff family; the Runge Lymphoma Project; and Dr. Stephanie A. Gregory. Should you like to learn more about named giving opportunities and support ground-breaking research, please contact Kate LeBoeuf at kleboeuf@lymphoma.org or 646 531 5184.
WHERE ARE THEY NOW?

KAIFU, MD

Kai Fu, MD, is the Chief of Pathology and Director of Hematopathology at Roswell Park Comprehensive Cancer Center.

When did you become interested in lymphoma?

I became very interested in lymphoma while I was a pathology resident at the University of Alabama. In 2000, I did an external rotation at The University of Texas MD Anderson Cancer Center under Dr. Jeffery Medeiros and during that time learned how an academic hematopathologist diagnoses lymphoma utilizing various ancillary analyses and how a hematopathologist can help with a patient’s treatment. Later, I completed my hematopathology fellowship at the University of Nebraska Medical Center, under the directorship of Dr. Dennis D. Weisenburger and Dr. John Chan (LRF grantee and past LRF SAB member), which further strengthened my desire to become an academic hematopathologist and to research lymphomagenesis and targeted therapies based on genetic alterations.

As a hematopathologist, I think pathology serves as a bridge between clinic medicine and basic research, which is extremely important. A timely and appropriate diagnosis can help personalize therapy and clinical management for patients at a time when it matters most.
When did you receive funding from LRF?
What kind of grant did you receive?
I obtained a Clinical Investigator Career Development Award from LRF in 2009. My mentor was Dr. John Chan at the University of Nebraska Medical Center.

“A timely and appropriate diagnosis can help personalize therapy and clinical management for patients at a time when it matters most.”

What research project were you working on?
We were looking to target the miR-17-92 cluster for the treatment of mantle cell lymphoma (MCL).

Why did you choose to focus on mantle cell lymphoma (MCL) in your initial research?
Mantle cell lymphoma (MCL) is a rare but aggressive non-Hodgkin lymphoma. Unfortunately, only limited therapeutic options are available for MCL patients, suggesting a need for a better understanding of the molecular mechanisms regulating the pathogenesis, transformation and progression of the disease, as well as for novel targeted therapeutic approaches based on molecular genetic alterations.

Why was the funding you received from LRF vital to advancing your career in studying and treating lymphoma?
The funding from LRF helped me establish my research to focus more on lymphomagenesis and targeted therapies. Since then, our lab has been working on signal transduction pathways related to miR-17-92, such as PI3K/AKT, mTOR, MYC kinome, and targeted therapies for PLK-1 pathway and eIF4A targeting in aggressive lymphomas, including mantle cell lymphoma.

What research are you currently working on that you would like to share?
My lab is working on understanding the lymphomagenesis mechanism and developing novel targeted therapies for aggressive B-cell lymphomas, including MCL. Specifically, we are working on two funded projects. First, we are studying synthetic rocaglates as a promising therapeutic agent to target protein biosynthesis in aggressive hematological malignancies. We have recently identified that PLK-1 is one of the major kinases for MYC functional kinome, and we have shown that target PLK-1 provides a promising novel therapy for MYC-driven lymphomas.

I am also working on a large consortium project — the North American Mantle Cell Lymphoma Project. This project was initiated by Drs. Julie Vose and James Armitage (past SAB members) at the University of Nebraska Medical Center. I have served as a chief pathologist for the project, and so far, we have recruited more than 600 MCL cases from 23 academic institutions in North America. We hope to complete the clinicopathology study soon followed by genetic studies and targeted therapies.

How has your relationship/involvement with LRF evolved since receiving this grant?
I have been regularly attending LRF’s Mantle Cell Lymphoma Consortium (MCLC) meetings over the last 10-15 years. My involvement with LRF has helped me to work collaboratively with other clinicians/scientists in the field.

Why is LRF’s focus on research/research programs so important?
With a mission to eradicate lymphoma and serve those touched by these diseases, the LRF and its focus on research programs helps to significantly advance our understanding of the molecular mechanisms of lymphomagenesis and development of targeted therapies based on genetic alterations through focused research funding, collaborative studies and education programs.

What are you most excited about in the field of lymphoma research? Why?
Lymphoma is one of the most diverse and heterogeneous malignancies with various and distinct clinical presentations, pathomorphological features and clinical outcomes. Understanding the molecular mechanism of pathogenesis and designing targeted therapies based on genetic abnormalities has always interested me tremendously and I believe presents great hope for the future of lymphoma. ☞
PATIENT PERSPECTIVES: Navigating the Internet While Managing a Cancer Diagnosis

After receiving a cancer diagnosis, it is not uncommon to feel overwhelmed, isolated or unsure where to turn. Greater access to new technologies has increased the use of the internet as a source of health-related information. Below are some ways lymphoma patients, survivors and caregivers can best navigate the internet for information, emotional and social support needs.
Peer Support

Although it is the most common type of blood cancer, lymphoma is a complex disease with more than 100 subtypes. Many navigating a lymphoma diagnosis may never meet another lymphoma patient or survivor in their community, let alone someone with the same subtype. Peer support is considered an effective way of providing social and emotional support during treatment and survivorship, and communities allow individuals to support one another from wherever they are without the challenges of physically attending support groups. Online communities enable individuals to send messages to fellow survivors by posting questions, answers, information and resources to a shared space. According to a study published in *Computers in Human Behavior*, online cancer communities regularly contain expressions (empathetic statements, displays of warmth, virtual offers of physical affection such as hugs) that could support individuals’ self-esteem and meet the needs for information and emotional support. It is important to note that because a cancer diagnosis can cause a wide range of emotional sequelae and many online communities do not have a trained specialist for support, members of these communities should take precautions in curating information or developing false expectations concerning their illness.

Accessing Information to Guide Decision Making

A diagnosis or relapse for lymphoma or chronic lymphocytic leukemia (CLL) often leads patients and their caregivers to sift through a complex network of information. In a study published in *Cancer Nursing*, participants described feeling confident with the information found on the internet if they read the same thing in multiple places and if it came from a reputable organization. In addition to searching for disease information, patients and their caregivers may use the internet to find oncologists for a second opinion or reading oncologist reviews.

Professionally Guided Internet Use

Professionally guided internet use is an educational and support intervention initiated by a member of the healthcare team. Patients and their caregivers are referred to websites, chat groups and apps with reliable health information or managed by a specialist, mitigating the possibility of receiving inaccurate information. According to a study published in *Psycho-Oncology*, patients benefit from online resources, especially when they and their healthcare team increase their engagement with online interventions such as integrated systems or online communities. Through this method, the internet can strengthen the relationship between physicians and patients and empower patients throughout their journey.

Sources:


At 24 years old, Nina Luker’s life was turned upside down when she learned she had stage IV diffuse large B-cell lymphoma (DLBCL) — just three days before New York City went on lockdown due to the 2020 COVID-19 Pandemic. “It was March 11, and I was sitting alone in my apartment as I saw my phone begin to ring. I answered in a cheerful and hopeful tone, never expecting that my life would be turned upside down,” Luker recalls.

She vividly remembers her doctor’s emotionless and somber tone as he said “hi” from the other side of the phone. “He took a long pause and then cut right to the chase, and all I can recall were the words, ‘lymphoma, a blood cancer.’” In complete shock and disbelief from the news she had just received, all Nina was able to think was “NO.” “I felt helpless, alone, scared and overwhelmed. How could a 24-year-old, health-conscious former Division I athlete have cancer? It didn’t make sense, it couldn’t be right,” says Luker.

DLBCL is an aggressive or fast-growing type of non-Hodgkin lymphoma (NHL). DLBCL affects B-lymphocytes, which are one type of white blood cell. These lymphocytes make antibodies to fight infections and are an essential part of the lymphatic system. DLBCL is the most common type of NHL worldwide, accounting for 18,000 newly diagnosed cases in the United States each year.

Presently, the most widely used treatment for DLBCL is the combination therapy known as R-CHOP (rituximab [Rituxan®], cyclophosphamide [Cytoxan®], and prednisone). The R-CHOP regimen is usually given in 21-day cycles (once every 21 days) for an average of six cycles. However, the length and number of cycles given can vary based on the patient’s disease and health status.

“I felt helpless, alone, scared and overwhelmed. How could a 24-year-old, health-conscious former Division I athlete have cancer? It didn’t make sense, it couldn’t be right.”
Luker’s doctor suggested the standard treatment regimen of R-CHOP and that she begin immediately. As a young woman, Luker had various concerns about the possible effects chemotherapy could have on her body, but due to the necessity of beginning treatment, she was unable to freeze her eggs or take some of the suggested precautions before treatment. Just one short week after receiving her diagnosis, Luker had moved back to her parents’ home in Pennsylvania and began chemotherapy. “It was a grueling process, and some days it took everything out of me,” says Luker. However, she approached chemo the same way she tackles life — with a “glass half full attitude” and decided to face it head on. “When I was diagnosed, I made a promise to myself that I wouldn’t let cancer control my happiness — a promise which ended up being one of the best things I could’ve ever done,” Luker exclaims.

During her time in treatment, Luker began to enjoy the simpler things and began to gain a new appreciation for life. “I realized that I had a choice — to wake up each day and feel victimized or live life with joy,” says Luker. Undergoing treatment and in lockdown due to COVID-19, Luker found joy through cooking, vegetable gardening, daily meditation, therapy, outdoor hikes, exercise and connecting with friends. While each round of chemo seemed to take a toll on Nina, she refused to lose her smile and put trust into her body knowing that she was doing everything in her power to counteract this disease. “I ate whole, nutritious foods, took out sugar, eliminated alcohol and used my passion for cooking as a way to stay healthy,” Luker adds. Her new health conscious lifestyle even inspired her to return to school and receive her health coaching certification.

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with others. TikTok is an app for making and sharing short videos online. “It provided me with a supportive and encouraging community and also gave me an outlet to share my story in a raw and honest manner,” Luker states. Luker shared the intimate details of her cancer journey through her videos of her shaving her head, dancing during chemotherapy treatments and trying on new wigs. Her videos became a social media sensation overnight, gaining her more than 150,000 followers.

Leading up to Luker’s final scan, she began to experience symptoms very similar to the ones that she had prior to her diagnosis. “I was terrified that I wasn’t in the clear yet and had convinced myself that chemo didn’t work,” says Luker. On July 13, five months after receiving her initial diagnosis, Luker was declared in remission. “This was the single most incredible day — it worked. I did it!” Nina joyfully says.

Following remission Nina began to slowly return to her normal life. She moved back to New York City and resumed her job in digital marketing and finished her studies in nutrition. “I feel like lymphoma gave me the tools and confidence to conquer just about anything that life throws my way,” says Luker.

Since then, Luker continues to be active, is officially a certified health coach and moved to Colorado. She continues to use her story to connect with others in the lymphoma community as an LRF Ambassador and documents her life post-lymphoma on TikTok. She even appeared in Ralph Lauren’s Pink Pony Campaign — a global initiative for cancer — and most recently represented Nike in their Summer 2021 LookBook.

Luker says her experience with cancer has left her with a profound sense of gratitude and an appreciation for the little things in life.

“Receiving a cancer diagnosis is scary and knowing you are possibly closer to the word ‘death’ is even more daunting,” says Luker. “But it can also open up something else wonderful inside you that you didn’t know existed — something that I will be forever grateful for.”
The Lymphoma Research Foundation's volunteer Scientific Advisory Board, comprised of 45 world-renowned lymphoma experts, guides the Foundation's research activities, seeking out the most innovative and promising lymphoma research projects for support.

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UPCOMING EVENTS

Update on Relapsed/Refractory CLL/SLL Webinar — Virtual ........................................ 7.22
Walk On! Chicago, Montrose Harbor .................................................................................. 8.1
Ask the Doctor About Lymphoma: Watch & Wait — Virtual ........................................... 8.17
Caregiving for a Loved One with Lymphoma Webinar — Virtual ...................................... 8.19
Blood Cancer Awareness Month, Worldwide ................................................................. 9.1-30
Southwest Lymphoma Workshop — Virtual .................................................................... 9.11
2021 Annual Gala — Virtual ............................................................................................. 9.30
North American Educational Forum on Lymphoma — Virtual ......................................... 10.15-17

Want to receive information about Lymphoma Research Foundation events happening in your area? Visit lymphoma.org/emailsupdate to select your email preferences and stay up to date with the latest from the Foundation.
Do You Have a Donor Advised Fund (DAF)?

Support the Lymphoma Research Foundation (LRF) through the #HalfMyDAF challenge and make your charitable dollars count.

Commit to granting half your donor advised fund to LRF.

Make your pledge before Sept. 30 to help nominate LRF for a matching grant of up to $100,000.

Support LRF’s mission to eradicate lymphoma and serve those touched by this disease.

Learn more about the #HalfMyDAF challenge and how to make your commitment at halfmydaf.com.