



2023

Donor Impact Report

Accelerating a cure for each and every multiple myeloma patient.



A Letter from the CEO



Dear friends,

Each year as we prepare our Donor Impact Report, I am constantly reminded of the unwavering dedication of our community. Your incredible trust, energy, and enthusiasm strengthened the MMRF in 2023, just as it has for the past 26 years. We are so thankful for your partnership as we bolster our efforts to drive progress for this amazing patient community, together.

I am proud to share that your continued generosity enabled us to invest nearly \$36 million this past year in urgent research projects and support services for patients. We directly invested in two new promising therapies through the Myeloma Investment Fund® (MIF), fueled three Myeloma Accelerator Challenge (MAC) Program Projects for \$21 million with the power to deliver new scientific advances, and served 16,500 patients with educational and support services to improve their outcomes. We also welcomed the inaugural cohort of the MMRF Scholars Program, which recruits early-career Black researchers to the field of myeloma.

While 2023 has come to a close, our vital work endures. Our new strategic plan is underway and guiding our organization as we advance innovative research to deliver cures for myeloma patients. Thank you for your steadfast commitment as we continue to do incredible things in 2024.

Sincerely,

Michael Andreini
President and Chief Executive Officer
Multiple Myeloma Research Foundation



“Your incredible trust,
energy, and enthusiasm
strengthened the MMRF
in 2023, just as it has for
the past 26 years.”



Accelerating Novel Therapies

Our first strategic priority is to **accelerate the development of novel therapies**. Before the MMRF, funding for multiple myeloma research was minimal. There had not been an FDA approval in more than 30 years, and patients survived just two to three years from diagnosis. Since our founding, we've accelerated promising breakthroughs for multiple myeloma patients to extend and enhance their lives. In 2023, our one-of-a-kind Myeloma Investment Fund® (MIF) expanded its portfolio by investing in two new early-stage companies that are advancing promising therapies for myeloma. Additionally, our collaborative research efforts through the Multiple Myeloma Research Consortium® (MMRC) continued, sponsoring the innovative MyDRUGSM Study and preparing to launch the HORIZON Adaptive Trials Program.

Donor Testimonial | Tom Mihelcic, Myeloma Patient



"I am grateful for the MMRF's research efforts, pipeline of new treatment options, and relentless pursuit of a cure, through which I have been able to spend more time with my family, welcome eight grandchildren, and travel, all because of the progress for patients."

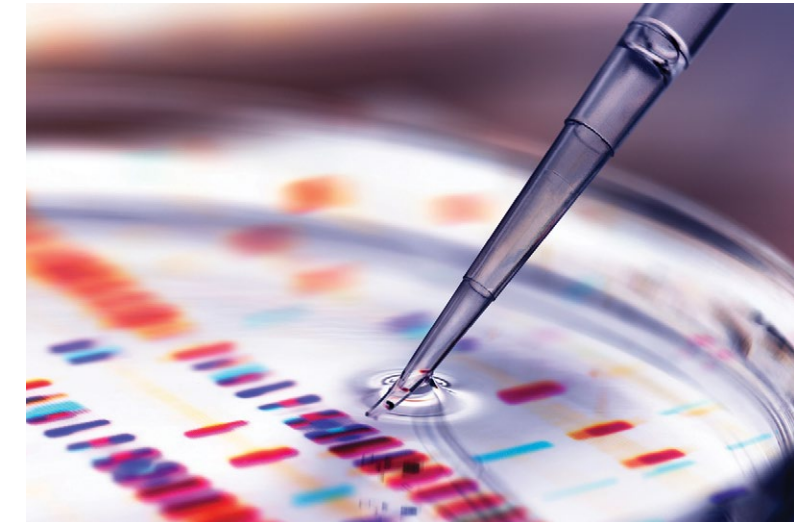
Myeloma Investment Fund

The **Myeloma Investment Fund® (MIF)** is the first and only mission-driven venture philanthropy fund focused on accelerating a cure for myeloma. It identifies and invests in the most promising biotechnology companies with innovative clinical assets and technologies that could be transformative for myeloma patients. This task largely falls to early-stage, venture-backed biotech companies that take on a disproportionate amount of scientific and financial risk that can only be overcome with world-class expertise and reliable funding. Investing through the MIF enables us to provide financial and strategic support to advance a robust pipeline of new myeloma therapies and improve the probability of their success for patients. In 2023, we added two new companies studying exciting immunotherapies to our portfolio and made follow-on investments in three others—Cullinan Oncology, KAHR, and Indapta Therapeutics.

To date, the MIF has invested a total of \$17 million in 13 different companies.

Our Investment in Nectin Therapeutics

Targeted immunotherapy can disrupt cancer cell activity and alert the immune system to seek out and kill cancer cells. **Nectin Therapeutics** is a biotechnology company developing novel targeted immunotherapies to address tumor



immune resistance. Nectin's first-in-class lead immunotherapy drug candidate, NTX1088, is a prime example of the next-generation treatment approaches our patients need for myeloma.

Our Investment in Reverb Therapeutics

Cytokine therapy is a cutting-edge treatment approach that turns small proteins affecting cellular growth and immune and inflammatory responses into tools in the fight against cancer. **Reverb Therapeutics'** antibody-based AmplifierTM platform is exploring treatment possibilities by activating endogenous cytokines that naturally occur within the body to signal helpful proteins.

Impact of the Myeloma Investment Fund® (since 2019)

\$17M
Invested

13
Companies in our
portfolio

4
Treatments advanced
to the clinic



Multiple Myeloma Research Consortium

The MMRF leads the **Multiple Myeloma Research Consortium (MMRC)**, a collaborative network of leading myeloma treatment centers conducting early-stage clinical trials to evaluate novel treatment strategies for patients.

Our consortium leads ambitious clinical studies that simply could not be done by any single institution, given their size and complexity. We identify the areas of significant unmet clinical need and advance innovative treatment approaches that answer urgent questions and offer greater options for patients living with relapsed/refractory, high-risk newly diagnosed, and high-risk smoldering myeloma.

Countdown to Launch: HORIZON Adaptive Trials Program

In 2023, the MMRF and 13 North American MMRC centers worked tirelessly to develop the groundbreaking **HORIZON Adaptive Trials**

Program. Slated to open in 2024, two trials will test treatment strategies in patients with relapsed/refractory disease and those who are newly diagnosed and have high-risk disease. The adaptive nature of the trials allows investigators to test multiple therapies simultaneously and reduce the amount of time needed to evaluate new therapies. Investigators can then rapidly expand patient cohorts receiving treatment regimens with positive outcomes, and efficiently close experimental protocols with less-than-optimal outcomes.

Groundbreaking clinical trials like HORIZON are only possible through larger-scale, multi-institutional cooperation. These trials will allow the MMRC to explore combination therapies regardless of manufacturer, putting the most promising science and the urgent need of patients ahead of pharmaceutical profits or industry competition.

THANK YOU TO OUR 2023 MMRC PARTNERS!

We couldn't launch the HORIZON Adaptive Trials Program without you.

- Levine Cancer Institute
- University of Chicago
- Barbara Ann Karmanos Cancer Center
- City of Hope
- Emory University
- Hackensack University Medical Center
- Mayo Clinic Rochester
- Memorial Sloan Kettering Cancer Center
- Icahn School of Medicine at Mount Sinai
- Sarah Cannon Research Institute at Tennessee Oncology
- University of California, San Francisco
- Dana-Farber Cancer Institute/Harvard Medical School
- University of Texas Southwestern

Spotlight on the MyDRUGSM Study

The MMRC-sponsored **MyDRUGSM Study (MyDRUG)** is the first platform study in myeloma that evaluates targeted therapies against specific genomic alterations in patients who are considered high-risk and have already had one to three therapies. Excitingly, the treatment arm using **Cotellic[®]** (cobimetinib), an FDA-approved therapy for melanoma, was expanded to include a larger patient cohort based on promising results among MyDRUG participants who received it—creating a new possible treatment option for patients with that genomic alteration.



Driving Optimal Treatment Approaches

Our second strategic priority is to **drive optimal and more personalized treatment approaches**. This is crucially important because multiple myeloma is different for everyone. We are collecting and sharing comprehensive data from a diverse array of patients to ultimately identify optimal and more personalized treatments for every patient. In 2023, your donations fueled the continuation and expansion of our most successful data initiatives. We are creating the most holistic picture of myeloma disease biology ever described, driving more precise approaches through treatment combinations that take into account patients' unique genomic, immune, and clinical factors simultaneously.

Donor Testimonial | Alison Slap Tress, Family of Myeloma Patient



“Despite the number of new options for myeloma patients, the disease remains incurable, and patients continue to need better options to save their lives. We support the MMRF for its unswerving patient focus to find the right treatment at the right time and its mission to find a cure for each and every patient.”



Our Data Initiatives

MMRF CoMMpassSM Study

Studying the molecular genetics and immune profiles of myeloma patients makes it possible to understand more about how their cancers may progress and respond to therapy, which is important information that can chart the path to effective treatment. Through our groundbreaking **MMRF CoMMpassSM Study**, we have built the largest molecular and clinical dataset in the public domain of multiple myeloma patients, yielding incredible insights to drive progress in research and patient care. CoMMpass is a decade-long genomic clinical study of more than 1,100 patients over the course of their treatment. Since its inception, the data and knowledge derived from CoMMpass has supported the publication of over 100 peer-reviewed scientific and clinical papers in leading scientific journals and many more abstracts and presentations at national and international conferences. In 2023 alone, 53 publications or abstracts utilized or referenced data from CoMMpass.

changes during disease development and how it is affected by therapy.

The Immune Atlas program is a collaboration between the MMRF and five leading academic medical centers. By the end of 2023, Immune Atlas analyzed over 1,400 samples from ~750 CoMMpass patients and is the **largest immune dataset from a single myeloma study in the world**.

In 2023, data from the Immune Atlas was presented in publications and at scientific meetings. This new data describes changes in the critical immune cell populations that detect and eliminate malignant cells in the bone marrow of myeloma patients and how these changes may influence disease progression and patient risk stratification.

The MMRF has accumulated more than 500 TB of data—roughly the equivalent of a 500-year-long music playlist—generated through these efforts. More data is being continually generated through new studies and research collaborations to drive deeper insights into myeloma biology and the mechanisms of clinical response and relapse.

“CoMMpass is the single most important contribution to myeloma research.”

—David Siegel, MD, PhD, Myeloma Division Chief at the John Theurer Cancer Center

CureCloudSM

Earlier this year, the MMRF concluded enrollment in the MMRF **CureCloudSM**, making it one of the largest longitudinal datasets in multiple myeloma, with over 1,000 patients enrolled. The data from this study, which includes clinical, genomic, immune, and patient-reported outcomes, is being analyzed in ongoing research and will be made available to researchers to help answer important myeloma research questions and inform future MMRF data-generating initiatives, all in support of our mission. For example, we have discovered that current liquid biopsy technology cannot capture sufficient myeloma cells, as compared to bone marrow biopsies, to enable large-scale genomic sequencing efforts. Several analyses of the dataset have already been presented at scientific meetings, and additional publications and submissions are underway.

Immune Atlas

The molecular genetics of multiple myeloma alone does not explain the full picture of myeloma disease biology nor how patients respond to therapy. To develop a more comprehensive picture of myeloma disease biology, the MMRF has been building upon the CoMMpass dataset by generating new “multi-omics” data on myeloma patients’ immunity through our **Immune Atlas** research program. Combining immune, genomic, and clinical data advances our understanding of how a patient’s immune system



Virtual Lab™

A critical barrier to medical research is a lack of access to high-quality data. Due to competition for funding and publication, academic researchers are not incentivized to share data outside of their institution. The MMRF, however, is and always has been committed to both generating and sharing our datasets widely to accelerate treatments. We ensure that myeloma researchers all over the world, no matter their affiliation, have access to a wealth of inclusive data from thousands of myeloma patients to power their work.

In 2023, we continued our work on creating the

largest-ever myeloma data-sharing platform, **Virtual Lab™ (VLab)**. Launching in 2024, VLab will aggregate the data from all of the MMRF's landmark research projects in a single, proprietary platform, equipping academic and biopharma researchers with online tools to view and utilize data from thousands of patients and run detailed analyses.

Researchers will be also required to share their analyses so that we can continue to build the body of knowledge about this disease while fostering a community of experts working together to accelerate a cure.

Donor Testimonial | Valerie Malsch, Myeloma Patient



“Since my diagnosis, I’ve undergone many treatments. I am now in remission, but I know that if my current treatment stops working I have options, thanks to the MMRF’s work, and donor support is what makes these options possible. Donor support saves lives.”

Myeloma Accelerator Challenge Program Projects

With our **Myeloma Accelerator Challenge (MAC) Program Projects**, the MMRF identified the highest areas of unmet need and selected the best researchers around the world to work together to more accurately define what it means to be high-risk and determine the best treatment options for those patients. Through these multicenter

translational research projects, researchers are sharing resources and samples to advance compelling hypotheses that are ready for rapid testing in clinical trials. In 2023, we directed three \$7 million multiyear projects focused on patients with high-risk newly diagnosed multiple myeloma and high-risk smoldering myeloma.

2023 Myeloma Accelerator Challenge (MAC) Grant Recipients



Samir Parekh, MD

Icahn School of Medicine at Mount Sinai, New York, NY
Transforming Treatment of High-Risk Myeloma

Collaborating institutions:

- Albert Einstein College of Medicine
- Hackensack University Medical Center
- Stanford University Medical Center
- University of California, San Francisco
- Washington University in St. Louis



Sagar Lonial, MD

Emory University Winship Cancer Institute, Atlanta, GA
Clinical & Multi-Omics Platforms to Define HR SMM

Collaborating institutions:

- Dana-Farber Cancer Institute
- Atrium Health Levine Cancer Institute
- Icahn School of Medicine at Mount Sinai
- Massachusetts General Hospital
- Mayo Clinic
- Memorial Sloan Kettering Cancer Center



Pieter Sonneveld, MD, PhD

Erasmus University Medical Center, Rotterdam, Netherlands
A Systems Biology Approach to High-Risk Multiple Myeloma

Collaborating institutions:

- Amsterdam University Medical Centers
- Julius Maximilian University of Würzburg
- University of Turin
- University of Salamanca

Empowering Patients and the Community

Our third strategic priority is to **empower patients and the myeloma community**. We believe every patient deserves the best possible outcome, which is why we're committed to making research opportunities more accessible and equipping patients with resources to expand their knowledge of myeloma and their ability to optimize their care. In 2023, we supported patients and their families from diagnosis through treatment by ensuring they had access to crucial information to make decisions about therapies and clinical trials. Critically, we also addressed disparities in access to quality care by broadening the field of myeloma research with diverse and talented scholars.



Donor Testimonial | Dr. Judith Harding, Myeloma Patient



"It means a great deal to me to be able to connect with renowned myeloma doctors and ask them questions to stay up-to-date on new treatments, side effects, and clinical strategies. The MMRF and the work they do is a big part of that."



Patient Education

We are committed to delivering the highest quality patient education programming, which includes in-person, interactive events around the United States featuring myeloma specialists, educational summits, patient toolkits, informational brochures and webinars, and a podcast called "Myeloma Matters" that spotlights myeloma patients and their disease journey.

This past year, as part of the MMRF website relaunch, our **Education Resource Hub** was restructured to better meet patient needs. The redesign centered on user experience, making resources and program information much more accessible. For example, information was organized by stage of the disease, where people are in their journey, and content type so that patients and caregivers can now curate resources specific to their needs and preferences. In 2023, our 25 programs educated 16,500 participants, which is more than any other organization. In addition, outcomes reports showed that 35% of patients attending an MMRF program increased their knowledge and confidence after participating.

Patient Navigation Center

Our **Patient Navigation Center** enables myeloma patients and caregivers to connect with Patient Navigators, all of whom previously worked as oncology nurses, for guidance and support throughout their journey. Patient Navigators answer questions, share resources, and help keep patients on the Right Track. Patients can connect with a Patient Navigator by phone, email, or an online form. In 2023, our Patient Navigators worked with 3,250 patients. These interactions led to remarkable outcomes, with over

70% of survey respondents gaining empowerment and confidence in discussing treatment options, while many also found a profound sense of relief.

MMRF Myeloma Mentors Program

For those who wish to connect one-on-one with someone who has shared experience with myeloma, the **MMRF Myeloma Mentors program** provides patients and caregivers the opportunity to connect via phone with trained mentors who offer personal insights to help inform, empower, and support fellow patients and caregivers. There are currently 11 mentors in the program, and the number of connections made increased 20% in 2023 compared to 2022.

"As a Myeloma Mentor,
I feel lucky to have the
ability to offer guidance,
hope, and reassurance
that they too will
overcome this challenge
and come out stronger."

—Lisa Brown, Myeloma Mentor
since March 2022



In collaboration with the Harvard Business School Kraft Precision Medicine Accelerator and other leading cancer research and advocacy organizations, the MMRF developed the **Right Track** framework to help myeloma patients optimize their decision-making at every step post-diagnosis. There are three critical components to the Right Track:





2023 Health Equity Summit

The MMRF's annual **Health Equity Summit** brings together the entire myeloma ecosystem—policymakers, academic researchers, biopharma executives, retail pharmacists, and community health advocates—to identify strategies and solutions to drive greater inclusivity in and access to clinical research studies in multiple myeloma.

For many patients with multiple myeloma, clinical trials offer the best treatment options. However, patients who are older, who are Black and/or Hispanic, and/or who live in rural areas are often excluded from cancer clinical trials and the benefits of potentially efficacious therapies.

One of the areas of focus for the 2023 Summit was reevaluating and expanding cancer clinical trial eligibility criteria—a well-documented factor in the exclusion of racial and ethnic minority groups from trials, including those studying multiple myeloma treatments. Chief among these exclusionary factors are blood count criteria that do not consider racial and ethnic variations, such as differences in “normal” absolute neutrophil counts and anemia rates.

The second area of focus highlighted several initiatives that have expanded access to clinical trials, including various partnerships that have facilitated

“Like-minded people working together with a common purpose truly have the capacity to change the world and, in that process, find a cure for every myeloma patient locally and globally.”

—Yvens Laborde, MD, Ochsner Health

the integration of research into the care continuum, and decentralized and hybrid study designs.

Addressing inequities in myeloma clinical research is intrinsic to the MMRF's goal of ensuring every person with multiple myeloma gets optimized treatment and eventually a cure. The MMRF is taking action to integrate key learnings shared at the Summit into its research strategy.

2023 Health Equity Summit Co-Chairs

Ola Banjo, PharmD, AAHIVP
Senior Director, Community Engagement and Partnerships, *Multiple Myeloma Research Foundation*

Hearn Jay Cho, MD, PhD
Chief Medical Officer, *Multiple Myeloma Research Foundation*

Anne Quinn Young, MPH
Chief Mission Officer, *Multiple Myeloma Research Foundation*

2023 Health Equity Summit Session Chairs

Monique Hartley-Brown, MD, MMSc
Medical Oncology, *Dana-Farber Cancer Institute*

Bindu Kanapuru, MD
Multiple Myeloma Team Lead, Division of Hematologic Malignancies 2, *US Food and Drug Administration*

Gurbakhash Kaur, MD
Assistant Professor of Internal Medicine, *University of Texas Southwestern*

Brian Rivers, PhD, MPH
Professor and Director, *Morehouse School of Medicine, Cancer Health Equity Institute*



In 2024, the MMRF will begin enrollment in the **HORIZON Adaptive Trials Program**, which will use expanded inclusion/exclusion criteria and a new adaptive platform model to broaden the eligible patient population.



MMRF Career Development Awards

By funding a new wave of talented researchers, the MMRF is helping to broaden and diversify the field of myeloma research to better reflect the heterogeneity of the myeloma patient community. The MMRF Scholars Program and the MMRF Research Fellows Award Program invest in early-career researchers and clinicians and serve as a draw to myeloma research for the brightest young investigators.

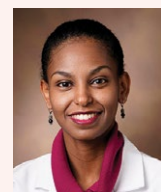
MMRF Scholars Program

We launched the **MMRF Scholars Program** in 2023 to provide financial support for Black researchers and clinicians (MD and/or PhD) who are currently active or interested in pursuing a career in the field of myeloma. Awardees are provided up to \$400,000 over four years to support their career development as researchers from postdoctoral to first tenure-track positions.

Inaugural MMRF Scholars Award Recipients



Joselle Cook, MD, MBBS
Mayo Clinic
Prevalence of MGUS Among Unique Populations of Black People



Eden Biltibo, MD, MS
Vanderbilt University Medical Center
Identifying Effective and Cost-Conscious Maintenance Daratumumab Dosing

MMRF Research Fellows Award Program

One of our longest-standing and most impactful programs, the **MMRF Research Fellows Award Program** is an initiative supporting young researchers at the postdoctoral, medical fellow, or junior faculty levels working under the supervision or guidance of a research mentor in the multiple myeloma field. We have supported these awards

since our inception, creating a steady pipeline of new researchers, many of whom later credit the MMRF with helping to establish their first lab or focus on an important new area of science. These \$150,000, two-year grants change the trajectory of researchers' careers and infuse the field of myeloma research with fresh perspectives and cutting-edge training.

Announcing the 2023 MMRF Research Fellows



Luis Corchete Sánchez, PhD
Postdoctoral Fellow, Massachusetts General Hospital, MA
Role of Sex Chromosomes in Multiple Myeloma



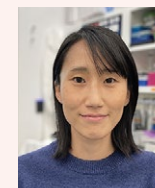
Ioannis Kostopoulos, PhD
Senior Postdoctoral Fellow, National and Kapodistrian University of Athens, Greece
Bone Marrow Microenvironment During the Natural History of Multiple Myeloma



Marcella Kaddoura, MD
Assistant Professor, Miller School of Medicine at University of Miami, FL
Defining the Genomic Landscape of Myeloma with CCND1;IGH Translocation



Enze Liu, PhD
Assistant Professor, Indiana University, IN
Utilizing Long-Read Technology to Study Splicing and m6A as a Whole



Holly Lee, MD
Resident, University of Calgary, Canada
Oncogenic Dependencies of Anti-BCMA Therapy Resistant Multiple Myeloma



James Nyamataga, MD
Instructor, Muhimbili University of Health and Allied Sciences, Tanzania
Molecular Characterization of Multiple Myeloma in Tanzania



Raising Funds for Myeloma Progress

Our fundraisers make our progress possible, helping us raise awareness for multiple myeloma, improve lives, and find a cure. In 2023, the **Team for Cures** program raised \$5.7 million through walking, running, biking, and other creative fundraising ideas. Learn more about how you can get involved, including how you can turn your passion into a fundraiser, or sign up for a community event near you. Visit themmrf.org/events.

2023 Events

-  **4** Hikes
-  **6** Marathons/Half-Marathons
-  **2** Rides
-  **15** (one virtual) Walks/Runs
-  **48** Create Your Own

Donor Testimonial | John Raithel, Myeloma Patient



“It’s so important to me to let newly diagnosed patients and their families know there is hope for a wonderful future! I am grateful for the MMRF’s research and the community I’ve found through their support programs, like MMRF Moving Mountains.”





Financials

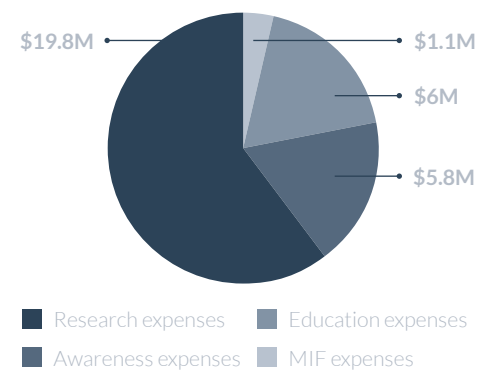
2022 Financials

Total raised:
\$43.8 million

Total administrative expenses:
\$1.2 million

Total fundraising expenses:
\$3.4 million

Total program expenses:
\$32.8 million



Total end of year net assets:
\$63.7 million

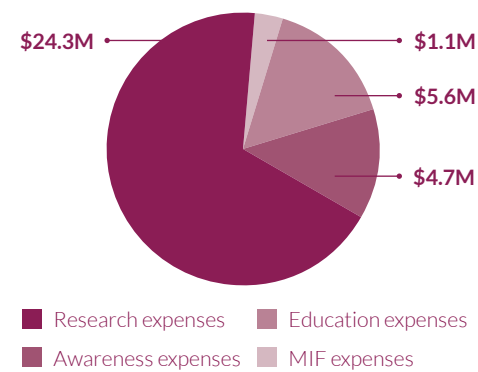
2023 Financials

Total raised:
\$35.9 million

Total administrative expenses:
\$1.4 million

Total fundraising expenses:
\$4.2 million

Total program expenses:
\$35.7 million



Total end of year net assets:
\$56.3 million





About the MMRF

The Multiple Myeloma Research Foundation (MMRF) is the largest nonprofit in the world solely focused on accelerating a cure for each and every multiple myeloma patient. We drive the development and delivery of next-generation therapies, leverage data to identify optimal and more personalized treatment approaches, and empower myeloma patients and the broader community with information and resources

to extend their lives. Central to our mission is our commitment to advancing health equity so that all myeloma patients can benefit from the scientific and clinical advances we pursue. Since our inception in 1998, the MMRF has raised over \$600 million for research, opened nearly 100 clinical trials, and helped bring 15+ FDA-approved therapies to market, all of which have tripled the life expectancy of myeloma patients.

Board Roster

Kathy Giusti, MBA
Founder, MMRF

Karen E. Andrews
Founder, MMRF

Thomas Conheeney
Chairman

Gerald McDougall
Vice Chairman

Kenneth Anderson, MD

Rodney Gilmore

David L. Lucchino

Lori Tauber Marcus

Hugh Martin

Susan Marvin

William S. McKiernan

Mike Mortimer

David R. Parkinson, MD

Marie Pinizzotto, MD, MBA

Adrian Rosenkranz

Steven Shak, MD

Kimberly A. White

Accreditations



