

ADVANCING MPN RESEARCH: 2018 Progress Report

Since 2011, CR&T's support of the Richard T. Silver, MD Myeloproliferative Neoplasm (MPN) Center at Weill Cornell Medicine has been our flagship research initiative. Over the past year, the Center has made significant advances toward achieving its goal: to become the world's leading center dedicated to MPN research and patient care.

Clinical Research

Launching new clinical trials is key to the discovery of effective new treatments for these blood cancers. In 2018, seven new studies will focus on potential therapies: four for myelofibrosis; one for polycythemia vera; two for essential thrombocythemia; and one for chronic myeloid leukemia. (For information about studies that are now seeking participants, please visit <http://silvermpncenter.weill.cornell.edu/research-and-clinical-trials/myeloproliferative-clinical-trials>.)

These trials will be conducted in collaboration with major pharmaceutical partners. The companies have been attracted not only by the expertise of the Center's staff, but by its strong infrastructure, which allows for highly targeted and rapid recruitment of patients who meet the study criteria.



Silver Center leadership (l-r):
Drs. Andrew I. Schafer, Richard T. Silver, and Joseph M. Scandura.

Under the leadership of the Center's Scientific Director, Joseph M. Scandura, MD, PhD, the Center has successfully focused on increasing the number of patients who are participating in clinical trials and building resources that will accelerate the pace of clinical and translational research. The Center now boasts one of the most extensive MPN patient databases and biospecimen collections in the country, enabling investigators to access detailed clinical records and nearly 300 bone marrow and blood specimens.

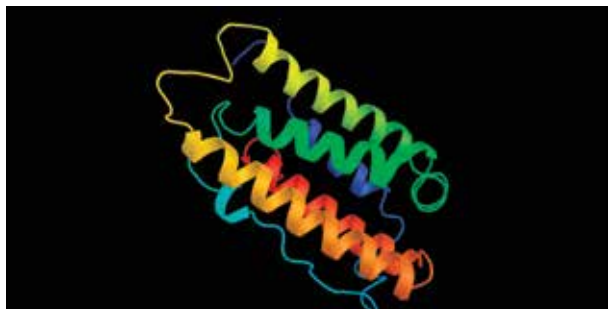
The MPN Interferon Initiative

This past year, Dr. Scandura and his team were invited to participate in an exciting international research collaboration, the MPN Interferon Initiative.

Our immune system naturally produces *interferons*, a class of proteins that help defend the body against tumor cells, viruses, bacteria, and other harmful foreign agents. In the 1980s, scientists began developing interferon-based treatments, using recombinant DNA technology that made it possible to produce large amounts of interferon outside the body. These therapies have proved effective in treating a wide range of diseases, from multiple sclerosis to different kinds of cancer.

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For more than 25 years, CR&T's founder, Richard T. Silver, MD, has been conducting pioneering research into the use of one of the interferons, interferon alpha, in the MPNs. He and other investigators have shown that interferon is the only drug that has disease-altering effects in the MPNs. It has the capability to slow, or even stop, the progression of these blood cancers.



Interferon alpha 2a

However, researchers still have much to learn about how and why interferon alpha works. There are three types of interferons, and each one plays a specific role in sending signals to the many kinds of cells involved in the body's immune response. This complex chain of communication is known as the interferon pathway. Understanding all of the interactions along the interferon pathway will help scientists develop better interferon compounds, as well as other drugs that could change the prognosis for MPN and other cancer patients.

The MPN Interferon Initiative, coordinated by the MPN Research Foundation, brings together experts who will define:

- How and why therapies that target the interferon pathway reduce the burden of mutated stem cells in MPN patients;
- Why targeting the interferon pathway is effective for some MPN patients but not others; and

- Why the positive effects of targeting this pathway are not permanent.

Last year, we reported that Dr. Scandura was part of a team that developed a way to create an unlimited supply of healthy, blood-cell forming stem cells outside of the body. Now, the Scandura lab has applied their new technology to

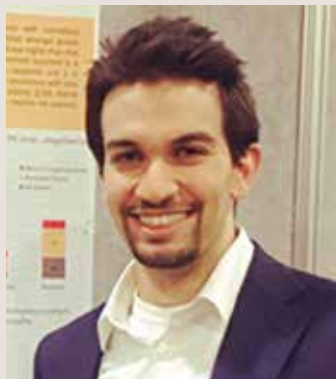
*The MPN Interferon Initiative
brings together internationally
respected experts.*

MPN stem cells, and will use it to better understand how interferons affect both normal and MPN stem cells. He and his colleagues plan to submit an abstract for the next American Society of Hematology Annual Meeting and a manuscript describing part of this work by fall 2018.

In addition to the Silver Center team, experts from Northwestern University's Lurie Cancer Center, Brigham and Women's Hospital, and INSERM/Institut Gustave Roussy (Paris) are participating in this unprecedented collaboration. The Advisory Group guiding the project includes two Silver Center investigators, Dr. Silver and Andrew Schafer, MD, the Center's Director.

This is just a sampling of the exciting research being conducted at the Silver MPN Center. To access information about the MPNs, current research studies, and more, please visit the Center's expanded and redesigned website at <http://silvermpncenter.weill.cornell.edu>.

LAUNCHING YOUNG INVESTIGATORS' CAREERS



Ghaith Abu Zheinah, MD

In May 2018, in addition to our ongoing commitment to the Silver MPN Center, CR&T's board of directors approved an additional grant of \$200,000, which will enable a highly gifted research fellow, Ghaith Abu Zheinah, MD, to move to the next phase of his career at the Center. Already an experienced clinician, Dr. Abu Zheinah is also sharpening his skills as a basic researcher in the Scandura lab (see article above).

Dr. Abu Zheinah recently was selected as one of three finalists in the Weill Cornell Medicine Fellows in Research Award program. Initiated in 2002, this award is given to fellows within the Department of Medicine who have performed outstanding research.

CR&T is proud to help pave the way for the next generation of talented MPN physician-researchers.

MESSAGE FROM THE PRESIDENT



Dear Friends,

This fall, at our 50th Anniversary Cancer Survivors Hall of Fame dinner, we will honor two remarkable cancer survivors. Our Humanitarian Award will go to summiteer **Alan Hobson** for his efforts to raise awareness of cancer and help patients cope with the disease. In 2002, three years after reaching the

summit of Everest, Alan was told that he had acute myeloid leukemia (AML) and that he had less than a year to live. Chemotherapy and a blood stem cell transplant saved his life. Today, Alan is a cancer survivorship specialist who has appeared on many national television shows, including Oprah, and who has inspired thousands of newly diagnosed patients and caregivers through his “Climb Back from Cancer” program.

Our Cancer Survivor honoree will be **Congressman Mark DeSaulnier** of California. A survivor of chronic lymphocytic leukemia (CLL), Congressman DeSaulnier is determined to help the millions of American patients and families who are affected by cancer. He has co-sponsored bipartisan legislation to improve access to cancer care planning and coordination of services.

Alan Hobson and Congressman DeSaulnier are just two examples of the patients whose lives CR&T-sponsored research has touched over the past five decades. While blood cancer – especially the myeloproliferative neoplasms (MPNs) – has been our primary focus, we have contributed to advances in other cancers as well. Key achievements of CR&T-funded investigators include:

- Conducting the first studies leading to the FDA’s approval of imatinib (Gleevec®), the drug that revolutionized the treatment of chronic myeloid leukemia (CML);

- Contributing to the development of new therapies for Hodgkin’s and non-Hodgkin’s lymphoma;
- Identifying the processes of blood cell formation, which led to new treatments for blood diseases and solid tumor cancers;
- Contributing to the use of interferon alpha and other biologic drugs for treating the MPNs, a group of rare blood cancers;
- Advancing our understanding of how and why breast cancers spread, and contributing to the development of new treatments; and
- Diagnosing lung cancer at an early stage.

As our cover story shows, this critical work continues – but it doesn’t end there. Thanks to your support, we also have an impact on cancer prevention and patient education. Every year, we support a program that provides free prostate cancer screenings to hundreds of men in an underserved community in Queens (page 4). We are also proud to present the International Patient Symposium on MPNs, a biennial conference that enables patients and family members to learn about the latest developments in MPN research and treatment, and to interact with prominent physicians and investigators. Our next Symposium will take place on October 23, 2019.

You’ll be hearing much more about our 50th Anniversary dinner and our distinguished honorees in the next issue of *CR&T News*. If you’re in the New York area, we hope you’ll join us and share in our Anniversary celebration. Most importantly, we hope you’ll consider making a special 50th Anniversary donation. Your commitment will enable us to mark this important milestone in the most meaningful way: by advancing outstanding research that will lead to new treatments and cures.

On behalf of all of us at CR&T, thank you.

Sincerely,

Thomas M. Silver
President

Patients Are Invited to Attend



11th International Congress on

Myeloproliferative Neoplasms

Oct. 25-26, 2018 New York, NY

The **International Congress on Myeloproliferative Neoplasms** is a forum for practicing hematologists, oncologists, translational scientists, and other healthcare professionals, with experts from both the US and Europe in the MPNs, including chronic myeloid leukemia, the hyper-eosinophilic syndromes, and mastocytosis. Chaired by Drs. Richard T. Silver and Jerry L. Spivak of CR&T’s Medical Advisory Board, the program will feature the latest information on the pathophysiology and management of these disorders through lectures,

interactive question-and-answer sessions and a peer-reviewed scientific abstract session.

Although the conference is a continuing medical education event intended for physicians, the organizing committee also welcomes patients to attend. **For more information or to register, visit www.11thMPNcongress.com. Use coupon code “PATIENT” to receive \$100 off your registration fee. Please email info@meltonmeded.com with any questions.**

CR&T CO-SPONSORS PROSTATE SCREENING PROGRAM

On April 21, CR&T marked our seventh year as a co-sponsor of the Annual Prostate Screening and Health Fair, held at First Presbyterian Church in Jamaica, Queens. Now in its 15th year, this program is conducted under the leadership of the Rev. Patrick H. O'Connor, pastor of the church, and Douglas Scherr, MD, professor of urology and clinical director of urologic oncology at the Weill Medical College of Cornell University. The two men's partnership was formed when Rev. O'Connor was diagnosed with prostate cancer, and Dr. Scherr became his surgeon.

In addition to the prostate screening, this health fair also offered HIV, glucose, and blood pressure screenings, along with health education classes. Dedicated volunteers from health centers and medical schools across New York City screened some 300 people.

Prostate cancer is the most commonly diagnosed nonskin cancer in America. African American men are 73 percent

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more likely to develop the disease than Caucasian men. If detected early, however, prostate cancer has over a 90 percent survival rate. Events like this, which offer free services in a warm and welcoming environment, play a critical role in providing preventive services to underserved communities. CR&T, which has also funded prostate cancer research, is proud to support this life-saving program.



Douglas S. Scherr, MD (left) and Reverend Patrick H. O'Connor

AJ SHIEKMAN: LEADING CR&T'S YOUNG PROFESSIONALS

Andrew (AJ) Shiekman is one of a core group of young professionals who represent the future leadership of CR&T. "My goal is to contribute to CR&T's amazing mission by raising awareness and support among my peers and colleagues for the work we've done and continue to do for patients, doctors, and the broader medical community," he says.



AJ Shiekman (right) and Tim Silver, founders of the CR&T Young Professionals

Like so many of the organization's board members and friends, AJ's involvement is personal. In 2016, his father passed away at the age of 63 due to complications resulting from metastatic lung cancer. Shortly after, he learned about CR&T from his childhood friend Tim Silver, whose family has a long association with the organization. Together, they formed the second iteration of CR&T Young Professionals – following in the footsteps of Amanda Johns Perez, Todd Shaw, and Adam Silver (who currently sit on the Board of Directors).

The group has held two successful Halloween fundraising events, and this year, they will focus on increasing involvement in the 50th Anniversary Cancer Survivors Hall of Fame dinner (see back cover).

"Everyone is touched by cancer in some way – through a family member, friend, or colleague. People are not always aware of the advances that are being made in prevention, screening, and early diagnosis," AJ says.

Now, AJ is eager to use his education and experience to raise awareness and provide researchers with the resources they need to conquer cancer. Andrew works in Corporate Strategy/Development at Pure Storage, a technology company specializing in hardware and data storage products for corporations.

"A personal goal of mine is to interact more deeply with CR&T's board – leveraging their countless years of experience running an organization of this caliber – in order to better understand how I can contribute to CR&T both now and in the future," he says. Thanks to AJ and his Young Professional colleagues, the future will hold life-saving breakthroughs in cancer treatment and care.

Interested in learning more about the CR&T Young Professionals? Please contact Barbara Rosenstein at 212-288-6604 or brosenstein@crt.org.

EDUCATING THE NEXT GENERATION OF PHYSICIANS



Dr. Sekeres (2nd from left), Dr. Silver and attendees.



Bharat Shah (right) chats with a student.

Every year, CR&T participates in two lectures at Weill Cornell Medicine (WCM), which are designed to impart knowledge about specific areas of hematology and oncology to medical students and physicians.

The Richard T. Silver, MD Distinguished Visiting Professorship – named in honor of CR&T’s founder – features a distinguished expert from another institution, who lectures on an important topic. The 2018 speaker was Mikkael A. Sekeres, MD, MS, Professor of Medicine and Director of the Leukemia Program at the Cleveland Clinic Taussig Cancer Institute. Department Fellows and faculty members attended his lecture, titled “The Myriad Machinations of Myelodysplastic Syndromes.”

Dr. Sekeres has been the national primary study investigator on several phase I/II trials and has published hundreds of articles and abstracts in peer-reviewed scientific journals. He also is an essayist for *The New York Times* and *Huffington Post*. Follow Dr. Sekeres on Twitter @MikkaelSekeres.

If you attended CR&T’s 2017 Cancer Survivors Hall of Fame dinner, you’re sure to remember the moving speech given by Bharat Shah, our Humanitarian honoree. In 2000, following a routine medical exam, Bharat and his family were shocked to learn that he had chronic myeloid leukemia (CML). At that time, no effective treatment was available, and he was told that he had up to three years to live. Fortunately, an Internet search led him to Dr. Richard Silver, who was conducting the first clinical trial of imatinib, the drug that was to revolutionize CML treatment. Today, Bharat lives an active, healthy life – and every year, he joins Dr. Silver for a lecture attended by WCM’s first-year medical students. On May 1, he again captivated his audience with the story of his cancer journey. At the end of the talk, students crowded around him, signing up to receive copies of his autobiography, *America My Destiny*.

CR&T is proud to be a part of these talks, which educate and inspire the next generation of talented physicians and researchers.

CR&T REMEMBERS MYRON J. SCHUSTER

We are deeply saddened by the loss of Myron J. Schuster, a cherished member of the CR&T family, who passed away on May 4.

A Wall Street veteran with decades of experience, Myron joined CR&T’s board of directors in 2013. His leadership and wise investment counsel were crucial to funding advances in cancer research.

Myron graduated from New York University in 1956. Following graduation and until 1963, he was at Ira Haupt and Company. The next 16 years were spent at Stern Lauer and Company, becoming partner and actively managing and directing the Institutional Equity Department. His tenure there was followed by 23 years at Ernst & Co. In 2002, he joined



Northeast Securities, where he was the Director of Institutional Services. Finally, he headed his own company, Myron J. Schuster Institutional Services.

Myron was a Renaissance man whose many interests included history and vintage cars, and who was devoted to his family. He understood firsthand the impact of cancer on patients and their families. Through his generosity and dedication to CR&T and its mission, he leaves a lasting legacy that will prolong and save lives.

Our heartfelt condolences go to Myron’s wife, Marilyn, and his sons, Leonard and Steven, and their families. We will honor his memory by doing all we can to build a cancer-free future.

SAVE THE DATE!

2018 CANCER SURVIVORS HALL OF FAME DINNER

50 Years of Achievement | 1968-2018

Tuesday, November 13, 2018
The Essex House
160 Central Park South, New York, NY

Please join us for a very special evening commemorating 50 years of achievement. This annual dinner honors outstanding cancer survivors, medical professionals, and humanitarians for their efforts to raise awareness and accelerate life-saving research. All proceeds benefit CR&T.

Cancer Survivor Honoree

The Honorable Mark DeSaulnier
U.S. Representative, 11th Congressional District, California

Humanitarian Honoree

Alan Hobson
Mount Everest Climber & Two-time Cancer Survivor

RSVP online at www.crt.org/Hall-of-Fame-Event or contact Barbara Rosenstein at 212-288-6604 or brosenstein@crt.org



Cancer Research & Treatment Fund, Inc.
50 Years of Achievement | 1968-2018

CR&T NEWS

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ABOUT CR&T

Since 1968, CR&T has funded the world's most promising physician-scientists, equipping them with the resources to advance the treatment of various types of blood cancers, including myeloproliferative neoplasms (MPNs), leukemia, non-Hodgkin's lymphoma, Hodgkin's disease and multiple myeloma, as well as other common cancers, such as breast and lung cancer.

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