Inside the Institute

DANA-FARBER CANCER INSTITUTE

February 5, 2013 Volume 18, Issue 3

A $10 million gift from Dana-Farber Trustee Judith B. Hale (at left) and her children, Robert Hale Jr. and Elizabeth H. Kendall, will establish the Hale Family Center for Pancreatic Cancer at Dana-Farber. The center will be led by Charles Fuchs (at right) and include a perpetual endowed chair at DFCI.

Hale family establishes Center for Pancreatic Cancer at DFCI

Thanks to the generosity of a former patient and his family, Dana-Farber is poised to make what Charles Fuchs, MD, calls a "comprehensive assault" on pancreatic cancer during the next decade.

A $10 million gift from DFCI Trustee Judith B. Hale and her children, Robert Hale Jr. and Elizabeth H. Kendall, will establish the Hale Family Center for Pancreatic Cancer at Dana-Farber. The center will include both a facility focused on research into the disease as well as a perpetual endowed chair at DFCI. The first incumbent of the Robert T. and Judith B. Hale Chair in Pancreatic Cancer and leader of the center will be Fuchs, who cared for Robert Hale Sr. before his death from pancreatic cancer in 2008.

According to Fuchs, director of Dana-Farber's Gastrointestinal Cancer Center, the gift is timely. Pancreatic cancer is the fourth leading cause of cancer-related mortality in the United States, and is particularly difficult to diagnose in earlier, more treatable stages because so little is known about the etiology, epidemiology, and inherited genetic risk factors associated with the disease. Using these funds, Fuchs and others can define new therapeutic targets in the lab and clinic.

"We have been building a cohort of talent across the Harvard community to focus on pancreatic cancer, and a gift of this magnitude gives us the means and resources to make this work possible," says Fuchs. "It takes a lot of people to mobilize against this type of disease, including some scientists who never previously worked on pancreatic cancer but see it as a unique research opportunity to which they want to make a deep commitment."

Fuchs says that the Hale Center will focus on collecting and analyzing tumor specimens to better inform patient care and future research initiatives, as well as defining new methods

Hale, *page 3*

Researchers find mutations in 'dark matter' of genome

Two new mutations that collectively occur in 71 percent of malignant melanoma tumors have been discovered in what scientists call the "dark matter" of the genome, where cancer-related mutations haven't been previously found.

Reporting their findings in the Jan. 24 issue of *Science Express*, researchers from Dana-Farber and the Broad Institute said the highly "recurrent" mutations – occurring in the tumors of many people – may be the most common mutations in melanoma cells found to date.

The researchers said these cancer-associated mutations are the first to be discovered in the vast regions of DNA in cells that do not contain genetic instructions for making proteins. The mutations are located in non-protein-coding DNA that regulates the activity of genes.

This non-coding DNA, much of which was previously dismissed as "junk," accounts for 99 percent of a cell's genome. A large number of cancer-related mutations have been identified in the past several decades, but all of them are located within the genetic blueprints for proteins.

"This new finding represents an initial foray into the 'dark matter' of the cancer genome," says Levi Garraway, MD, PhD,

Melanoma, *page 3*

New DFCI/BWH Blood Mobile debuts in March

The next time you're ready to curse the narrow, cobblestoned streets of Boston while driving, imagine being Andre Seale. Starting next month, he'll be navigating them in a 42-foot-long vehicle with the most precious of all resources aboard.

Seale will be behind the wheel of a new bloodmobile, which will be used for blood drives throughout the Greater Boston area to benefit patients at Dana-Farber and Brigham and Women's Hospital (BWH). Purchased through funds raised by the Friends of Dana-Farber Cancer Institute and its sister volunteer fundraising organization, the Friends of Brigham and Women's Hospital, it features five donor beds, three screening rooms, and additional space for people to relax after they donate.

The Blood Mobile gives Dana-Farber and Brigham and Women's Hospital the potential to conduct more blood drives at a greater variety of locations. "The streets around here are definitely a challenge, but now we can have a blood drive anywhere that has a wide enough area for us to park in," explains Seale.

Blood Mobile, *page 4*

Andre Seale (pictured in front of the current van) will drive the new Blood Mobile, which will be used for blood drives throughout the Greater Boston area to benefit patients at DFCI and BWH.


Stuart H. Orkin

Orkin to receive Jessie Stevenson Kovalenko Medal from National Academy of Sciences

Stuart H. Orkin, MD, chairman of Pediatric Oncology at Dana-Farber/Children's Hospital Cancer Center (DF/CHCC), will receive the Jessie Stevenson Kovalenko Medal in April at the 150th annual meeting of the National Academy of Sciences (NAS). The Kovalenko award, consisting of a medal and a prize of $25,000, is given every three years by NAS for important contributions to the medical sciences.

The academy is honoring Orkin for his pioneering achievements in defining the molecular basis of blood disorders and the mechanisms governing the development of blood stem cells and individual blood lineages. His work has significantly advanced the understanding of human hematologic diseases and revealed new strategies to prevent and manage these disorders.

Orkin, who is the first recipient of the Kovalenko Medal from either Dana-Farber or Boston Children's Hospital, joins notable previous winners from the field of hematology, including Nobel Prize winner George Whipple, Donald Metcalf, Janet Rowley, and Irv Weissman. The medal was last awarded to a Harvard Medical School faculty member nearly 40 years ago.

"This award recognizes Dr. Orkin's contributions to the field of hematology over the past three decades, which have established him as the preeminent investigator in the field of molecular hematopoiesis," says **David A. Williams, MD**, chief of the division of Hematology/Oncology and associate chairman of Pediatric Oncology at DF/CHCC. "His contributions span the breadth of stem cell biology, hematology, and molecular genetics. We are extremely pleased with this recognition for Dr. Orkin and are very proud of him and what he represents in our program."

Orkin earned his medical degree from Harvard Medical School in 1972, followed by postdoctoral research at the National Institutes of Health and clinical training in pediatrics and hematology-oncology at Boston Children's Hospital and Dana-Farber, where he joined the faculty in 1978. Orkin is also the David G. Nathan Professor of Pediatrics at Harvard Medical School as well as a Howard Hughes Medical Institute Investigator. During the past two decades, his laboratory has defined critical nuclear regulators of blood cell development and differentiation, many of which are altered in human leukemias, and also discovered how the switch from fetal to adult hemoglobin in humans is controlled. RS


Wayne Anthony Marasco

Marasco appointed full professor

Wayne Anthony Marasco, MD, PhD, was promoted to full professor of medicine at Harvard Medical School.

Marasco earned a doctorate of philosophy in 1981 from the School of Medicine at University of Connecticut and graduated cum laude with a doctor of medicine degree from the University of Michigan Medical School in 1986. He joined Dana-Farber in 1988.

His research focuses on the development of human monoclonal antibody drugs. Much of his laboratory's efforts are in the area of emerging viral pathogens. His laboratory has developed antibody drugs for the treatment of several human pathogenic viruses, including West Nile, Denge, and severe acute respiratory syndrome (SARS). In 2009, his laboratory was credited with discovering the first antibody drug and target for the universal influenza vaccine. This effort has expanded to investigate personalized vaccines to optimize the host response to prevent infections.

In 2003, Marasco became founding scientific director for the National Foundation of Cancer Research Center for Human Antibody Therapies, which is focused on developing human antibody drugs for the treatment of cancer. In 2011, he and his team established the Humanized Mouse Center at Dana-Farber to facilitate the testing of new cancer immunotherapies. This program aims to develop improved animal models for immune system-based cancer treatments and vaccines.

In 2012, Marasco established the Center for Human Antibody Therapies at Harvard Stem Cell Institute (HSCI) to facilitate the development of new human antibody drugs that have the ability to modulate stem cell functions and developmental pathways. The Humanized NeoNatal Mouse Center was also launched at HSCI to aid investigators in the development of promising human stem cell therapies.

Marasco lives in Wellesley with his wife, Jeny, and daughters Mariah, Torrey, Madison, Austyn, and Sierra. ITI


David Rosenthal

Rosenthal honored with New England Patriots volunteer award

David Rosenthal, MD, hematologist-oncologist and medical director of the Zakim Center for Integrative Therapies, was recognized by the New England Patriots in a special halftime ceremony at Gillette Stadium Dec. 30. The Kraft family and the New England Patriots Charitable Foundation (NEPCF) presented grants to 16 nonprofits as part of a season-long campaign, "Patriots Difference Makers." Rosenthal was named "Difference Maker of the Year" and awarded a $10,000 grant.

Rosenthal is past president of the Massachusetts Division of the American Cancer Society (ACS). He was chairperson of the Massachusetts Coalition for a Healthy Future, and led groundbreaking initiatives in tobacco control for the state more than a decade ago. He spearheaded development and fundraising for the AstraZeneca Hope Lodge in Boston, an ACS program that opened in 2008. "Patriots Difference Makers" is a part of an ongoing initiative, *Celebrating Volunteerism*, run by the Kraft family and NEPCF to inspire New Englanders to become lifelong volunteers. Robert Kraft and his son, Daniel, are DFCI trustees. MD


Kai Wucherpfennig

Wucherpfennig named department co-chair of Cancer Immunology and AIDS

Kai Wucherpfennig, MD, PhD, was appointed co-chair of Cancer Immunology and AIDS, joining Harvey Cantor, MD, the department chair.

Wucherpfennig, who is also professor of neurology at Harvard Medical School (HMS), studies how immune T cells respond to antigens and how to spur them to recognize and attack tumors in cancer immunotherapy.

"Kai will continue to build on cancer immunotherapy initiatives that have encouraged collaborative interactions between basic and clinical DFCI scientists," said Edward Benz Jr., MD, president and CEO of Dana-Farber, in announcing the appointment.

Throughout the past 10 years, Benz added, "Kai has made substantial leadership contributions to the Institute, the department, and the HMS immunology community."

Wucherpfennig has served on DFCI's Research Working Committee and Promotions and Appointments Committee, and the HMS Executive Committee on Immunology. RS

Cooking for a cause

Nearly 30 of western New England's culinary greats participated in the 23rd annual *Chefs for Jimmy* to support adult and pediatric cancer care and research at Dana-Farber. The event, which to date has raised nearly $100,000, was held Jan. 25 at Agawam's Chez Josef and featured tastings, drawings, and a silent auction.

Presented by Winer Levsky Group of UBS Financial Services Inc., and co-chaired by DFCI Trustee Barbara Sadowsky, the event honored the memory of Neal Webber, a long-time supporter of the Jimmy Fund. Participating restaurants and caterers created dishes and décor to highlight the event's theme, the Hasbro classic The Game of Life.

The event was hosted by the Jimmy Fund Council of Western Massachusetts with media support from Kix 100.9, Mix 93.1, WHYN 560, abc40/Fox6 Springfield, and the Valley Advocate. Since 1990, Chefs for Jimmy has raised more than $1 million for adult and pediatric cancer care and research at Dana-Farber. CAC

Inside the Institute is published by the Dana-Farber Communications Department for staff members and friends of **Dana-Farber Cancer Institute**. The next issue is scheduled for **Wednesday, February 20**.

Story ideas are welcome and may be sent to Naomi Funkhouser at 450 Brookline Ave., OS301, Boston, MA 02215. You may also call 617-632-5560, fax to 617-632-5520, or email *Naomi_Funkhouser@dfci.harvard.edu*. Visit the Dana-Farber website at ***www.dana-farber.org*** or the intranet at ***www.dfcionline.org.***

Senior Vice President for Communications
Steven R. Singer

Director, Editorial and Creative Services
Michael Buller

Associate Director, Internal Communications
Gillian Buckley

Editor
Naomi Funkhouser

Designer
Lee Whale

Staff Photographer
Sam Ogden

Editorial Contributors
Crystal A. Carroll, Meredith Dunn, Richard Saltus, Saul Wisnia

Photo and Design Contributors
John DiGianni, Driscoll Photography, Kimberly Ryan, Jessica Walker, Aaron Washington, Sean Wiedemeier

Inside the Institute is printed on 30% recycled post-industrial fiber.

Staff ID

Edward Vozzella
Materials Control
Supervisor
Years at Dana-Farber: Four

Describe your role here.
I am the materials control supervisor. This department is responsible for processing and delivering packages to all of the main campus and satellite buildings. We are also responsible for maintaining the stock in the clinic supply closets and IV solutions containers on each floor in Yawkey. It is important that I maintain a clean, safe, and organized area while ensuring that all packages are delivered in a timely manner. I am a hands-on supervisor who thoroughly enjoys his job.

What is your educational background?
Many years ago, I attended Northeastern University, majoring in criminal justice. My career took a different path when I was offered a position in logistics as a distribution center manager for a local retail clothing company. For more than 20 years, I managed a staff that processed $8-12 million dollars of goods each week to satisfy the needs of 15 buyers, 300 retail stores, and web customers.

What brought you to Dana-Farber?
Five years ago, I became a patient here. One day while on Dana Farber's website looking for my oncologist's phone number, I searched job opportunities. I had lost my job while undergoing chemotherapy treatments and was desperate to find a new one. I saw an opening as an expediter in the materials control department. I applied, and the rest is history.

What is most rewarding about your work here?
I am so thankful to all the staff here. They literally saved my life. Yes, I can proudly say I am a "DFCI survivor." At times when I walk the floors and see patients being loaded in and out of ambulances, I have flashbacks of the trying, painful days, but I am living the outcome. Each day I try to go the extra mile, helping my staff and others. This is my small way of trying my best to give back.

What is the biggest challenge in your role?
When we receive packages addressed to Dana-Farber with no other information. People don't realize how huge Dana-Farber actually is, with 13 separate buildings. It is quite a task to figure out where to deliver such packages. Also, there are days our workload is overwhelming. Many times, I have to call upon the assistance of the staff at Dry Dock [Harbor Campus] to help out here at the main campus. Our goal is to have main campus and Dry Dock work as one team to fulfill all of Dana-Farber's needs.

How does your role contribute to the mission of Dana-Farber?
Every day, I try to instill to my team that our department is extremely important. It is crucial that everything is delivered on time, as you never know how critical that package might be. Whether it's a scan, a specimen, or lab supplies, it is important that it get delivered to help in a cure.

What do you do for fun in your spare time?
I enjoy sailing Boston Harbor, puttering around with my 1929 Model A, and traveling with my wife to warmer climates. Most important and most enjoyable is acting like a big child with my four grandchildren, and just having my family around me. NF

Melanoma, *continued from page 1*

of Dana-Farber and the Broad and the article's senior author. "In addition, this represents the discovery of two of the most prevalent melanoma gene mutations. Considered as a whole, these two *TERT* promoter mutations are even more common than *BRAF* mutations in melanoma. Altogether, this discovery could cause us to think more creatively about the possible benefits of targeting *TERT* in cancer treatment or prevention."

The mutations affect a promoter region – a stretch of DNA code that regulates the expression of a gene – adjacent to the *TERT* gene. *TERT* contains the recipe for making telomerase reverse transcriptase, an enzyme that can make cells virtually immortal, and is often found overexpressed in cancer cells. "We think these mutations in the promoter region are potentially one way the *TERT* gene can be activated," says Franklin Huang, MD, PhD, co-first author of the report along with Harvard MD-PhD student Eran Hodis, of Dana-Farber and the Broad.

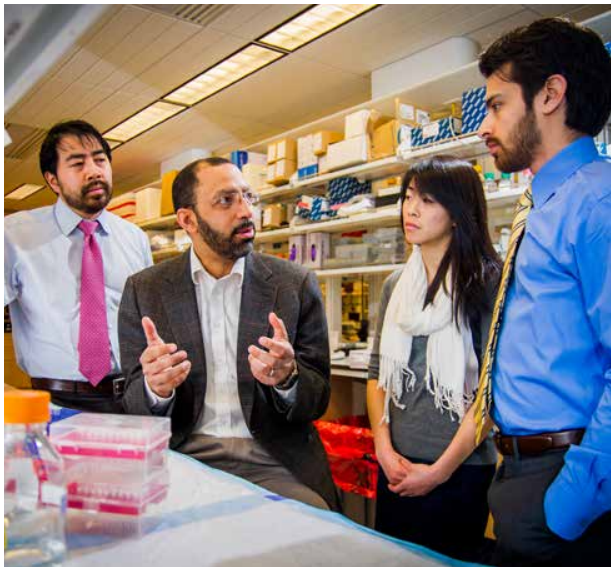
To investigate the mutation's effect, the researchers hooked the mutant *TERT* promoter to a gene that makes luciferase – a light-emitting protein. They observed that the mutant promoter increased the production of luciferase in laboratory cell lines. In the same way, the scientists presume, the mutant promoter in human pigmented skin cells can send the *TERT* gene into overdrive, potentially contributing to the development of melanoma.

The mutations were discovered when the scientists sifted through data from whole-genome sequencing of malignant melanoma tumors. Unlike "whole-exome" searches that examine only the protein-coding DNA of a cell's genome, whole-genome searches scan all of the DNA, including the non-coding regions.

In analyzing whole-genome data, the investigators discovered the two somatic, or non-inherited, mutations in 17 of 19 (89 percent) tumors. Next, they sequenced a larger number of melanoma tumors and found that the two mutations were present in 71 percent of them.

The researchers said the same mutations are also present in cell lines from some other malignancies, and that preliminary evidence showed they might be unusually common in bladder and liver cancers. They also noted that the discovery of these important mutations in DNA previously not linked to cancer-causing alterations highlights the value of whole-genome searches of tumor DNA.

Other authors include Mary Jue Xu, a student at Harvard Medical School; Gregory V. Kryukov, PhD, of the Broad; and Lynda Chin, MD, of MD Anderson Cancer Center. RS



Franklin Huang, Levi Garraway, Mary Jue Xu, and Eran Hodis (pictured here left to right) discovered new mutations in the "dark matter" of the cancer genome that drive malignant melanoma.

Hale, *continued from page 1*

for assessing pancreatic cancer risk and, with it, more effective early detection. Colleagues throughout Dana-Farber, as well as at partnering institutions including Brigham and Women's Hospital and the Broad Institute, will be part of the effort.

Robert Hale Sr. was an entrepreneur and business leader who, with his family, had already established an endowment for pancreatic research at DFCI before his death at age 69. For Judith Hale, his wife of 46 years, Fuchs was a natural choice to head the Hale Center.

"I don't think Dana-Farber hires anyone who doesn't have compassion in his or her bloodstream," says Judith Hale, who met with DFCI leaders to discuss her gift shortly after becoming a trustee last year. "My husband had the best of care and the kindest of doctors, and I had some peace of mind that if a miracle drug appeared, Dr. Fuchs would use it on my husband. You always live with hope, and Dr. Fuchs gave meaning to that hope."

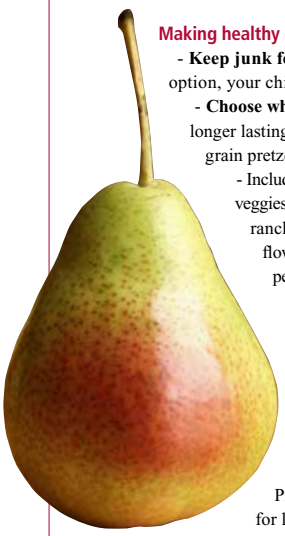
The gift will support several exciting initiatives already under way, according to Fuchs. Working with the Broad, he and DFCI colleagues are striving to sequence the tumors of pancreatic cancer patients for whom there is clinical data available, in order to characterize the disease and understand its genetic drivers. Brian Wolpin, MD, of Dana-Farber, is studying metabolomics – the metabolic pathways in patients' blood that give rise to pancreatic cancer. By understanding what causes these pathways, researchers hope to identify more effective therapies and early detection methods.

"Mr. Hale was a phenomenal guy who dealt with his own disease with extraordinary courage and dignity," says Fuchs. "This center will be a wonderful legacy to him." SW

Creative school lunch ideas

Nutrition experts at Dana-Farber share tips on balanced and healthy eating. To learn more, visit www.dana-farber.org/nutrition.

Sending your child to school with the right food choices can be overwhelming. Kids are finicky eaters, and packing the lunchbox with the same sandwich you know they like seems like the easiest choice. However, a nutritious lunch is key to helping children thrive during these peak years of growth. Use these tips and lunch and snack ideas to fill your child's lunchbox with all the essentials for a healthy diet – whole grains, vegetables, fresh fruit, and protein.



Making healthy choices

- **Keep junk food out of the house.** If it's not available as an option, your child can't eat it instead of more nutritious snacks.
- **Choose whole-grain foods** that are high in fiber and provide longer lasting energy. Swap out white, refined grains for whole-grain pretzels, tortillas, pastas, and cereals.
- Include at least **two different foods** in each snack. Serve veggies with something to dip, such as hummus or fat-free ranch dressing. Fruit can be dipped in almond or sunflower butter or yogurt, or try apples and celery in peanut butter. Get creative.
- **Breakfast foods** are good any time of day. Send protein-rich scrambled eggs in a thermos to keep them hot, or a whole-wheat toaster waffle topped with peanut butter and fruit for lunch.
- **Have fun with food.** Use cookie cutters to make shapes, or create fruit kebabs for dipping.
- **Keep healthy foods accessible** in the fridge for snack time after school when kids are hungry. Pre-wash and cut veggies and fruit so they're ready for little nibblers.
- **Leftovers rock.** Send your kids to school with a hot, comforting meal that they enjoyed eating the night before. Heat it up in the morning, then place it in a thermos. Pasta dishes, soups, and stews work well. Pack a side of whole-grain crackers to dip in soup, or a side of cheese to sprinkle on top.

Brown bag twists

Need some ideas to get started? Pack your next brown bag with these creative lunch themes:

"Dipper day" – Kids love playing with food. Pair grilled chicken strips with honey mustard. Cut celery sticks, carrot sticks, and cauliflower to dip into ranch dressing or hummus. Offer whole-grain tortilla chips to dip in salsa or guacamole. Pack a pre-made light tuna or wild canned salmon dip for cucumber slices or whole-grain crackers.

Playful sandwich art –

Sandwich "sushi roll": Flatten a piece of bread with veggies, meat, and other toppings, roll it up length-wise, and cut into "sushi bites."

Banana "log roll": Use a whole-grain wrap, spread with natural peanut or almond butter, a large banana, and a sprinkle of cinnamon and honey, and roll up.

Sandwich "puzzle": Create a healthy whole-grain sandwich cut into irregular shapes to mix up.

"Waffle-wich": Use whole-grain waffles, apple slices, cheese, and peanut butter (or another protein source, like eggs) for a twist on the classic sandwich.

Asian noodles: Cook up a batch of linguini with shredded carrots and slaw, low-sodium soy sauce, and rice vinegar. Serve cold; add veggies or meat to personalize it.

There's an app for that

Dana-Farber has launched a free iPhone app that provides recipes and nutrition information that cancer patients can search. The recipes are also helpful for anyone who wants to have a healthy diet. The app, *Ask the Nutritionist: Recipes for Fighting Cancer*, contains more than 100 easy-to-prepare recipes. Users can access a list of ingredients, directions on how to prepare the dish, a shopping list to use at the grocery store, and nutritional information.

The app is available for all iPhone users with IOS 5 or higher. To download it, visit the iTunes App Store.

For more information, visit www.dana-farber.org/nutritionapp.

Ever Wonder?

What is the difference between a benign and malignant tumor?

Most of the time, the cells in our body grow and develop in an orderly, controlled manner, kept in check by a powerful system of restraints. These controls sometimes fail, allowing abnormal cells to grow chaotically. These renegade cells can form a sore or plaque of cells – known as a lesion – or a lump, which is called a tumor.

A benign tumor grows slowly and isn't able to invade nearby tissues or metastasize – spread to other parts of the body to form more tumors.

Often, benign tumors need no treatment, but they can become dangerous if they grow large enough to press on vital organs, blood vessels, or nerves. In such cases, they are generally removed through surgery, which also allows pathologists to confirm that they are not malignant.

A malignant, or cancerous, tumor, on the other hand, contains cells that can spread from their original location to invade nearby tissues and send virtually immortal offspring cells to distant organs and tissues. Such tumors are dangerous and, if they progress, can be deadly.

By examining biopsy samples of a tumor using a microscope and molecular tests, pathologists can classify the tumor as benign or malignant, says Keith Ligon, MD, PhD, of the Center for Molecular Oncologic Pathology at Dana-Farber/Brigham and Women's Cancer Center. They further classify the tumor cells according to "grade," or degree of aggressiveness. "The overall goal is to try and predict how the tumor will behave and what treatment the patient will need," explains Ligon.

Some tumors have the potential to become malignant cancers over time. This is especially true of "precancerous" or "dysplastic" lesions. Examples of these are precancerous polyps in the colon, growths in the cervix caused by the human papilloma virus (HPV), and dysplastic lesions in the mouth and lungs. They may progress to cancer when some of the tumor cells undergo genetic changes, such as mutations that give them malignant properties. RS

Blood Mobile, *continued from page 1*

As a driver for the Kraft Family Blood Donor Center at DFCI and BWH, Seale currently shuttles equipment to and from blood drives in a 15-foot van. Since these events require large open spaces, he often carries gear up elevators and into conference rooms or auditoriums to set it up.

Many organizations lack the square footage needed to host a blood drive, especially in inclement weather that makes outdoor events impossible. This has restricted the number of drives Dana-Farber and Brigham and Women's can conduct, but now they can all take place on the Blood Mobile – and Seale's days of toting equipment are over.

"Being able to take the Blood Mobile out to sites makes us more accessible," says Malissa Lichtenwalter, supervisor of blood donor recruitment at the Blood Donor Program of DFCI and BWH. "Additionally, people will see the vehicle parked in front of buildings and think, 'We should have a blood drive too.'"

Because set-up time is largely eliminated with a bloodmobile, Lichtenwalter says it will be possible in some cases to do two blood drives in one day.

"We're generally looking for businesses with a minimum of 100-125 employees and 30-35 people who will agree to schedule an hour-long appointment on the Blood Mobile to donate," she says. "If any staff member knows of a place they think would be a good candidate – an organization they volunteer for, house of worship, local business – please send me the contact information."

Conducting more blood drives will enable Dana-Farber and BWH to be less dependent on an outside supplier for blood. This is a long-time goal of Lichtenwalter and others at both institutions, and the Blood Mobile should help make it a reality.

"We need about 30,000 units of blood to serve all the patients at Dana-Farber and Brigham and Women's, and about 45 percent of that goes to oncology patients," says Judith Wallace, MSM, administrative director for the Joint Program in Transfusion Medicine at Dana-Farber and BWH. "We collect from 3,500-4,500 units a year, year after year, or about 10-15 percent of our needs. Although we know there will be some start-up time required to get used to the new system, our initial goal is to increase from 65 to 151 annual drives in the first 12-18 months using the Blood Mobile, and then focus on further growth as we establish more network contacts and sponsors."

Wallace and Lichtenwalter both praised the Friends groups from DFCI and BWH, which through their separate $500,000 pledges assisted with the purchase of the Blood Mobile as well as start-up costs, on-board equipment, and its upkeep. SW