Inside the Institute DANA-FARBER Volume 20, Issue 24

December 22, 2015

Lord recognized with Rising Star Award



Getting to Know Kelly O'Connell



Red Sox players make holiday visit to clinic



ASCO elects **Bruce Johnson** 2017 president

The American Society for Clinical Oncology (ASCO) has chosen Dana-Farber's Bruce E. Johnson, MD, to lead the large and influential cancer organization as its president in 2017.

Johnson, a noted lung cancer physician-scientist and the Institute's chief clinical research officer, will take office as president-elect during the June 2016 ASCO Annual Meeting. His one-year presidential term begins in June 2017, and his service will continue for an additional year as past president.

ASCO's network comprises nearly 40,000 oncology professionals from more than 120 countries. The organization is dedicated to providing the highest-quality resources in education, policy, and clinical research and to improving care for patients with cancer. The results of clinical trials presented at its annual meeting are a benchmark of year-to-year progress in the fight against cancer. ASCO's flagship publication, the Journal of Clinical Oncology (JCO), is an authoritative resource for cancer research findings.

"ASCO is the leading organization of oncology professionals in the world, and I am honored and proud to serve as its volunteer leader," Johnson says.

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Friends bring cheer to patients, staff

Holiday music and cheer filled the Yawkey Center lobby Dec. 14-21, as the Friends of Dana-Farber brought its annual Holiday Hospitality program to patients, families, and staff. Local musicians from Marshfield High School, Winter Hill Community School, New England Conservatory of Music, Marblehead High School, and Westborough High School performed holiday favorites in the lobby and on clinical floors, while dancers from Turning Pointe Dance Studio put on a show for visitors. Bakeries including Caffè Nero, Modern Pastry, and Union Square Donuts also provided holiday treats. **SEW**



Twenty years ago this week, the premiere issue of Inside the Institute appeared on news racks around Dana-Farber. The eight-page publication, dated Dec. 22, 1995, featured a profile of then-new Chief Operations Officer Jim Conway; a column by thennew Institute President David ALC: CAP Nathan, MD; an events calendar; an article on the creation of a center for gastrointestinal cancer with Brigham and Women's Hospital; and an article on a series of full-page newspaper What's new Inside the Institute? announcements featuring Dana-Farber patient stories - the first public awareness campaign of its type in the Institute's history. "The chief purpose of Inside the Institute is to unite Dana-Farber's clinical, FARBER CANCER INSTITUTE research, and administrative communities by keeping each informed of the others' work," a message from the editor stated. "In these pages you will come to know your Dana-Farber colleagues better," it added – a mission that continues today. \square

On holidays and every day, chapel offers sacred space





For Rutendo Gambe, it is where she can be both inspired and reflective, connected to strangers without saying a word. Dan Rossman forgets about his cancer there, thinking instead about those he loves. Carol Stewart feels safe, and notes that "the light always shines through, even on the cloudiest days."

The Dana-Farber Chapel, tucked into a second-floor corner of the Yawkey Center, is something different to each patient, family member, or employee who steps inside its wood-paneled walls. Open all day, every day, it caters to many religious faiths and practices as the spiritual center of the Institute.

Chapel, page 3

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News of Note

Institute researchers contribute to global oncology journal

The Nov. 17 issue of the *Journal of Clinical Oncology*, which focuses on global cancer medicine, includes several studies by Dana-Farber researchers. **Lawrence Shulman, MD**, former chief medical officer at the Institute and now director of the Center for Global Cancer Medicine at the Abramson Cancer Center of the University of Pennsylvania, was the editor of the issue, and wrote a commentary on progress and challenges in bringing modern cancer medicine to less-developed parts of the world. Shulman is also a Presidential Scholar at Dana-Farber's Center for Global Cancer Medicine.

Dana-Farber contributors to the issue include: **Timothy Rebbeck, PhD**, coauthor of papers on oncology care in Africa and global diversity in cancer genomics; and **Claire Wagner**, co-author of a paper on the most-needed cancer medicines in the developing world, and, with **Temidayo Fadelu**, **MD**, co-author of a paper on the need to evaluate the safety and efficacy of cancer care in resource-poor areas.



Ligibel speaks at international conference

Jennifer Ligibel, MD, director of the Leonard P. Zakim Center for Integrative Therapies, was one of three keynote speakers at the Society for Integrative Oncology's 12th International Conference Nov. 14-16 at the Park Plaza Hotel in Boston.

Jennifer Ligibel

Ligibel's talk focused on the role of diet and exercise in cancer treatment and survival. She is currently leading a randomized phase 3 trial to test the impact of weight loss on cancer recurrence in overweight and obese women diagnosed

with early-stage breast cancer. She is also studying the biologic changes that occur when a patient starts to exercise to understand how those changes could affect cancer.

"Obesity has been linked to poor outcomes in women with breast cancer," says Ligibel, who is also a medical oncologist in Dana-Farber's Susan F. Smith Center for Women's Cancers. "We are interested in determining whether weight loss after cancer diagnosis improves outcomes, and if it does, how?"

The other keynote topics at the conference focused on how to counteract the harmful effects of stress, and an international perspective on mind-body medicine in integrative oncology.

Lord named Rising Star by NEEBC



Jessica Lord, benefits compliance and operations manager in Human Resources (HR), won a Rising Star Award at the 2015 New England Employee Benefits Council's (NEEBC) 17th Annual Best Practices Conference. The award recognizes new benefits professionals who have demonstrated exceptional promise in their field and are "the next leaders of the benefits profession," according to an award statement. Lord was honored at the conference Dec. 3.

Jessica Lord

"I continue to feel privileged to work under the

incredible leadership of the professionals in the HR department," says Lord, who joined Human Resources in 2014 from the Finance department.

The 2015 Annual Best Practices Conference focused on the intersection of cost and quality. Topics included who should be responsible for paying for quality health care, how to achieve affordable access to life-changing innovation for employers and consumers, and how the pharmacy market dynamics and cost trends of drugs can be effectively managed to ensure a sustainable health care system.



Meyerson honored as biomedical research leader

Matthew Meyerson, MD, PhD, was honored as a 2015 Biomedical Research Leader at the annual Biomedical Research Day Honors Luncheon of the Massachusetts "During the past years, advances in cancer genomics have led to the implementation of targeted therapies that have improved cancer survival," Meyerson says. "Now with the development of systematic cancer genome diagnostic approaches, pioneered by the Profile program at Dana-Farber, we can bring the benefits of genome-directed cancer therapy to all patients."

Massachusetts Biomedical Research Day began in 2006 to celebrate leaders in biomedical research whose work saves countless lives and improves the health of millions of people around the world. SC

Schwartz Center Rounds celebrate milestone at Dana-Farber

On its 20th anniversary, the Schwartz Center for Compassionate Healthcare has recognized Dana-Farber for hosting Schwartz Center Rounds for more than 10 years. The rounds, held at the Institute six times per year since 2003 and named for Ken Schwartz, a young patient who died of lung cancer, provide staff a regularly-scheduled time to discuss the social and emotional aspects of caring for patients and families. A hallmark of the rounds is the opportunity for audience members to share their perspectives. Dana-Farber is one of more than 375 organizations in the United States and Canada to conduct Schwartz Center Rounds.

"The Schwartz Rounds are a departure from other educational activities because they allow participants to speak from their hearts and share their experiences," says **Mary Ann Case, RN, MSN,** who organizes the series with **Douglas Brandoff, MD**, and **Julie Salinger, MSW, LICSW**.

Institute President and CEO Edward J. Benz Jr., MD, will deliver the rounds on Dec. 22, from 12:30-1:30 p.m. in the Boston Red Sox Jimmy Fund Auditorium. His topic will be "Reflections on Compassionate Care as a Clinician and Chief Executive." III

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"In fact, I consider it a fulfillment of my most significant professional and academic career goal."

As president, Johnson will be a public spokesman for ASCO as it addresses issues such as patients' access to the most advanced treatments, physician reimbursement, and support for research funding. He will also have influence in how ASCO's education and scientific committees keep members informed about new developments. He says his priorities as president will include anticipating and responding to evolving health care policies, using "big data" to guide treatment of patients, and helping ASCO members adapt to changing professional and financial aspects of oncology practice.

"This is a great honor," says Dana-Farber's President and CEO Edward J. Benz Jr., MD. "The presidency of ASCO is a prominent, public-facing position in the world of cancer care, research, policy, and advocacy."

Johnson is also an Institute Physician at Dana-Farber, professor of medicine at Harvard Medical School (HMS), and leader of the Lung Cancer Program of



Bruce Johnson, a leading lung cancer physician and researcher, will become ASCO president in 2017.

Professorship from the Conquer Cancer Foundation of ASCO.

He will be the fifth Dana-Farber physician to serve as president of ASCO, following Emil Frei, MD, 1968-69; George P. Canellos, MD, 1993-94; Karen H. Antman, MD, 1994-95; and Robert Mayer, MD, 1997-98.

The American Society of Hematology also has an Institute leader at its helm.

Society for Biomedical Research. Meyerson received the honor for his contributions to biomedical research and education in New England.

Matthew Meyerson

"This honor represents a recognition of Dana-Farber's pivotal role in biomedical research," says Meyerson. Meyerson is an American Cancer Society Research Professor

at Dana-Farber and has been recognized as the second-most-cited scientist in the world. He has also mentored many top researchers in cancer genomics.

At the luncheon, Meyerson spoke about the growth in cancer genome discoveries and the contributions of these discoveries to both diagnostics and treatments. Dana-Farber/Harvard Cancer Center. He became an ASCO member in 1986 and has served in several leadership roles, including his current membership on the organization's Bylaws Committee. He previously served on the ASCO Board of Directors and on the *JCO* Editorial Board, and has chaired several committees. In 2008, he was awarded the Translational Research Ken Anderson, MD, director of the Jerome Lipper Multiple Myeloma Center and LeBow Institute for Myeloma Therapeutics, and the Kraft Family Professor of Medicine at HMS, is president-elect for 2016, succeeding 2015 president David Williams, MD, president of Dana-Farber/Boston Children's Cancer and Blood Disorders Center. RS

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Study charts 'genomic biography' of form of leukemia

A new study by scientists at Dana-Farber and the Broad Institute of Harvard and MIT offers a glimpse of the wealth of information that can be gleaned by combing the genome of a large collection of leukemia tissue samples.

By analyzing key stretches of genetic material in chronic lymphocytic leukemia (CLL) and normal tissue from more than 500 patients, researchers identified dozens of genetic abnormalities that may drive the disease, including two that had never before been linked to human cancer. They began to trace how some of these abnormalities affect the course of the disease and its susceptibility to treatment, as well as the evolutionary path of CLL, as its ever-churning genome spawns new groups and subgroups of tumor cells in a single patient.

This type of information is critical as the treatment of CLL is increasingly geared to the unique genetic features of each patient's tumor. Traditional chemotherapy regimens are now being supplemented by drugs that target the specific set of delinquent genes within cancer cells.

"Sequencing the DNA of CLL has taught us a great deal about the genetic basis of the disease," says Catherine Wu, MD, of Dana-Farber, the Broad Institute, and Brigham and Women's Hospital, a senior author of the study, which published in *Nature*. "Previous studies were limited by the relatively small number of tumor tissue samples analyzed, and by the fact that those samples were taken at different stages of the treatment process, from patients treated with different drug agents.

"In our new study, we wanted to determine if analyzing tissue samples from a large, similarlytreated group of patients provides the statistical power necessary to study the disease in all its genetic diversity – to draw connections between certain mutations and the aggressiveness of the disease, and to chart the emergence of new mutations and their role in helping the disease advance," she continues.

Wu and her team collected tumor and normal tissue samples from 538 patients with CLL. They performed whole-exome sequencing (WES) on each sample, reading sections of DNA that hold the code for making proteins. An analysis of the data yielded a broad range of insights:

• Researchers identified dozens of genetic abnormalities that may play a role in CLL, including 44 mutated genes and 11 genes that were over- or under-copied in CLL cells. Two of the mutated genes -RPS15 and IKZF3 – have not previously been associated with human cancer.

- Certain gene mutations were found to be especially common in tumor tissue from patients) who had already undergone treatment, suggesting that these mutations help the disease rebound after initial therapy.
- Researchers compiled a rough draft of a "molecular biography" of CLL by determining which mutations tend to arise early or late in the course of the disease. They also identified mutations that often occur in pairs.
- The investigators found that therapy tends to produce shorter remissions in patients whose tumors carry mutations in the genes *TP53* or *SF3B1*.
- By comparing tumor samples collected prior to treatment and after relapse, "we found that genomic evolution after therapy is the rule rather than the exception," Wu remarks.

Dana-Farber-affiliated contributors to the paper include Donna Neuberg, ScD, a co-senior author; Dan Landau, MD, PhD, and Amaro Taylor-Weiner, co-first authors; Scott Carter, PhD; and Johannes Reiter. RL

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At any given time, a visitor may spot one person seated on a prayer rug facing Mecca, another wrapped in a prayer shawl, and a third kneeling on a cushion in silent meditation. Chaplains lead nondenominational prayer sessions, and during December the chapel is home to a menorah for Hanukkah, a Buddha statue for the Day of Enlightenment, and a nativity scene for Christmas. "It is a great example of how the chapel offers common sacred ground," observes Walter Moczynski, DMin, BCC, director of the Center for Spiritual Care at Dana-Farber.

In addition to celebrations, the chapel also serves as a gathering spot in times of sadness. After the Haiti earthquake in 2010 and the Oklahoma tornado of 2013, visitors wrote notes of prayer and placed them in the chapel's prayer basket. On the one-year anniversary of the Boston Marathon bombings in 2014, people added reflections to a Book of Hope.

Most often, however, this is a place to be at one with yourself – and others.

"Some of the most powerful moments of my day take place in the chapel, whether I go there before work, after work, or just to get away from the lab and empty my brain," says Gambe, a research technician in Hematologic Oncology.



Staff ID



Kelly O'Connell

Department: Inpatient Medical Oncology Title: Physician Assistant Years at DFCI: 3

Describe your role here: I provide medical care to patients who need to be admitted to Brigham and Women's Hospital for management of hematologic and solid tumor oncology medical issues. I also care for patients who require inpatient monitoring

while receiving chemotherapy. I help manage all stages of a patient's hospital visit, including examining them, ordering and interpreting tests, and diagnosing and treating them. I work closely with an attending physician, the patient's outpatient oncologist, nursing staff, and other specialists to develop a care plan. I also arrange long-term care and provide inpatient palliative and end-of-life care as needed.

Where did you go to school? I earned my bachelor's degree in chemical engineering from the University of Virginia and completed my master's degree at Northeastern University to become a physician assistant.

What brought you to Dana-Farber? I always knew I wanted a career in oncology medicine. My uncle was diagnosed with acute myeloid leukemia and underwent a tandem autologous and allogeneic stem cell transplant in 1990 under the care of Dr. Soiffer. He is still alive today and is a tribute to the hope that is DFCI. I spent years focused on stem cell research, but I wanted to see the results of my bench research in action, so I completed an elective rotation in oncology at Dana-Farber while at Northeastern. The rotation renewed my conviction that caring for oncology patients is what I am meant to do. I knew that accepting this position would be a lifelong career.

The nativity scene, a menorah, and Buddha all call the Dana-Farber Chapel home during the holidays.

"Everyone can coexist there no matter their faith or practice, and you don't need to talk to feel the connection."

Rossman, a brain tumor survivor who frequents the chapel during follow-up appointments, calls it "a calming place" that has brought him and his wife, Sarah, solace and new friends. On one visit, they encountered Father Yaroslav Nalysnyk, a Dana-Farber chaplain, who invited them to join him in a centering meditation. "It was a transformative experience," Rossman recalls. "We've been close ever since."

Stewart, whose breast and ovarian cancer has been in remission for years, still finds comfort in the chapel's large, stained-glass screen through which dazzling colors stream. The screen, designed and created by the family of former Dana-Farber Physician-in-Chief Emil Frei III, MD, was moved in 2011 from the chapel's original location in the Dana lobby to its Yawkey Center locale. Stewart followed it.

"The first time I went to the chapel, it wrapped its arms around me," says Stewart. "It still does to this day. It is a very holy and extraordinary place." SW What is most rewarding about your work? Taking care of cancer patients is a privilege. My goal is to make each day of a patient's journey with cancer better than the last.

What is your biggest challenge? We are present during the most moving and terrifying times of a person's life. When I can help people understand their disease, I hope that I have taken a little of their burden from them.

What book are you reading? *Stories from the Shadows, Reflections of a Street Doctor* by Jim O'Connell. Dr. O'Connell is the founding physician and president of Boston Healthcare for the Homeless Program. It is a story about homeless medicine in Boston, told through the stories of his most memorable patients.

What do you do for fun? I love spending time outdoors with my dogs and taking long rides with my husband on our motorcycle, exploring hidden culinary gems.





Boston Red Sox players and mascot Wally the Green Monster brought holiday cheer to Dana-Farber patients as part of the team's annual Holiday Caravan. Relief pitchers Robbie Ross Jr. (center) and Noe Ramirez (right) joined infielder Deven Marrero for a visit to the Jimmy Fund Clinic and Yawkey 6. The players met with patients, posed for photos, and handed out autographed balls. MG

Project GENIE aims to speed precision cancer research

Dana-Farber and other centers at the forefront of precision cancer medicine are collecting thousands of "profiles" of DNA mutations in individual patients' tumors, along with pathology reports and medical records showing how they respond to treatments.

Over time, scientists expect the increasing amounts of data will yield patterns that can help physicians select drugs shown to be most effective for cancers with certain genetic profiles. Until now, the centers haven't been routinely sharing their databases with one another, and it's been a roadblock to faster progress.

That's why Project GENIE (Genomics, Evidence, Neoplasia, Information, Exchange), an international data-sharing initiative launched by the American Association for Cancer Research (AACR), is getting a warm welcome from scientists in the field. In the initial phase, Dana-Farber and six other centers will pool existing and future results of cancer genome analysis and patient outcomes in (DF/BWCC), says Laura MacConaill, PhD, scientific director of Profile.

Until now, MacConaill says, "Each institution has recognized the importance of genomic profiling for its patients, but we haven't figured out how to share the pathology and genomic and clinical information that may be represented differently at each institution."

For precision cancer medicine to be successful, scientists must gather solid statistical evidence linking particular genetic variations in patients' tumors to how they respond to drugs. Especially with rare cancers or genetic variants, it takes very large numbers of patient samples to show a statisticallysignificant link. No single institution sees enough cases; that's where GENIE's data-pooling strategy can be powerful, say project leaders.

Along with Dana-Farber, the founding institutions of Project GENIE are:

• The Center for Personalized Cancer Treatment, Utrecht, the Netherlands

Five years after difficult transplant, teen remains active

Drew D'Auteuil is a 17-year-old animal-loving, volleyball-playing, honor roll student with braces and a shock of red hair. Although he may seem like a typical teen, D'Auteuil has survived rare, life-threatening complications of a stem cell transplant.

D'Auteuil's transplant journey began in June 2009 when he was diagnosed with aplastic anemia, a condition where the bone marrow produces too few red blood cells, white blood cells, and platelets. In the next 11 weeks, he was admitted to Boston Children's Hospital 14 times, received regular blood transfusions, and spent no more than 20 hours at home at a time. In November 2009, he had a stem cell transplant to replace his failing bone marrow, and returned home in isolation, able to see friends outdoors only and working with a tutor to keep up in school.

Five months after his transplant, D'Auteuil was biking with a friend near his New Hampshire home, suffering little more than a mild cough. The next day, he was in the intensive care unit at Boston Children's for respiratory failure. Soon other organs were failing too. Quick action by ICU and transplant clinicians saved his life.

Although the donor stem cells cured his aplastic anemia, D'Auteuil developed idiopathic pneumonitis syndrome (IPS), a dangerous inflammation of the lungs that occasionally arises in transplant patients who receive stem cells from an unrelated donor.

"IPS is a very rare, but known, complication of stem cell transplant, with a high fatality rate," says Allison O'Neill, MD, D'Auteuil's pediatric hematologist/ oncologist at Dana-Farber/Boston Children's Cancer and Blood Disorders Center. "Drew's ICU and transplant teams showed a lot of foresight. They gave



Drew D'Auteuil experienced multiple complications and hospitalizations following a stem cell transplant for aplastic anemia, but the teen hasn't let that dampen his spirits.

him a drug that dampens the abnormal immune response thought to contribute to IPS, and he started on his long road to recovery."

IPS added another 10 months to D'Auteuil's isolation, including weeks of using a walker and struggling even to turn his head. But none of this dramatic history is evident on first meeting D'Auteuil today.

Now a junior at Sowhegan High School in Amherst, N.H., D'Auteuil takes a full, challenging course load, and rows on his school's crew team, works part time at the Boys and Girls Club, and spent his summer volunteering with the Animal Rescue League.

"I have a different outlook than other kids my age; I don't take things for granted," says D'Auteuil, who receives physical therapy for a mild case of graft-versus-host disease that causes some stiffening of his body.

In April, D'Auteuil and his family traveled to Germany to meet his donor, Steven Manro. He, his wife, and 2-year-old daughter hosted a barbecue for the visitors.

D'Auteuil knows the importance of Manro's gift: "It was like meeting a friend for the first time," D'Auteuil says. $\ensuremath{\mathbb{IS}}$

Joint Commission Corner

The Joint Commission is scheduled to complete an extensive, on-site clinical review of Dana-Farber sometime between now and February 2016. The Joint Commission is an independent, nonprofit organization that accredits and certifies more than 20,500 health care organizations and programs in the United States. Joint Commission accreditation is recognized nationwide as a symbol that reflects an organization's commitment to health care quality and a culture of excellence.



a standardized way.

The overall goal of the data pooling is to find new cancer-related mutations and potential drug targets, assess candidate biomarkers, and identify patient populations that might benefit from existing treatments.

"We believe it's an extremely valuable project," says Barrett Rollins, MD, PhD, Dana-Farber's chief scientific officer and a member of the AACR Project GENIE steering committee. "We want to share it with cancer researchers around the world. It's a database like no other."

The database will soon include data on the first 7,200 tumor DNA samples analyzed by the Profile cancer genotyping research program at Dana-Farber/ Brigham and Women's Cancer Center

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- Institut Gustave Roussy, Villejuif, France
- Johns Hopkins Sidney Kimmel Comprehensive Cancer Center
- Memorial Sloan-Kettering Cancer Center
- Princess Margaret Cancer Centre, Toronto, Canada
- Vanderbilt-Ingram Cancer Center

Funded for two years with \$2 million from AACR, the Project GENIE registry already contains more than 17,000 genomic records, many related to late-stage and rare cancers. As these institutions treat new patients, additional data, stripped of all identifying information to maintain patients' privacy, will be added. Focus areas that surveyors may ask about include, but are not limited to:

- Quality data and performance improvement initiatives
- Infection control practices (e.g., hand hygiene, personal protective equipment, cleanliness of the environment)
- National Patient Safety Goals
- Medication management (e.g., handling, labeling, security, administration)
- Environmental safety (e.g., fire procedures, medical equipment checks, emergency management drills)
- Patient and family satisfaction (e.g., Press Ganey, complaints and grievances)
- Any policies and procedures affecting patient care across the Institute
- Use and navigation of the medical record, including historical review

