Donaghue conference focuses on implementing research

More than 250 people attended Donaghue’s *Beyond Eureka! True Tales of Knowledge Uptake: Reflections, Success Stories, and Cautionary Tales* annual meeting and conference on April 23 at the Hilton Hartford Hotel.

This was the third of Donaghue’s *Beyond Eureka!* meetings, each of which has emphasized the importance of bridging the gap between research findings and knowledge put into practice. This year’s meeting highlighted individuals who have their own examples of using research findings in practice or policy to improve health.

The keynote speaker, Atul Gawande, MD, MPH spoke on the topic of “Better: The Problem of Performance in Medicine.” Ray Andrews (Donaghue Trustee 1993-2007), who introduced Dr. Gawande, highlighted his many accomplishments as a writer, teacher and surgeon and recalled his first address to a Donaghue audience in May 2003 when he was a seventh-year surgical resident.

Noting that medicine has become enormously complicated, with over 13,500 procedures and 3,700 diagnoses, Gawande said there are two ways to fail — through ignorance and through poor performance. For centuries, medicine had been largely challenged by the lack of knowledge to adequately treat disease, therefore making ignorance the primary cause of failure. But now “for the first time medicine is challenged by both ways to fail.”

This shift and, in particular, the difficulty of improving performance, has created a new medicine, asserted Dr. Gawande, a method of practice that allows one to understand outcomes and then ask how we can make those outcomes better. This new approach requires the science and innovation to understand “how to make sure we do what we aim to do.”

Dr. Gawande used the example of the military’s decreased death rate as an example of a significant improvement in outcomes that resulted not from new knowledge but from using data to identify practices that require changing and feedback loops to improve results.

This focus on a new medicine is also creating a shift in who the hero is in medicine. Medical students have been taught that the individuals in the lab, who can discover by themselves how to “save the day,” were the heroes, but we now need a new type of hero who figures out how to make it possible for everyone to “save the day” through better performance.

Because we already spend over $100 billion in medical research and almost none in how to implement these discoveries, said Gawande, “we need something like a National Institute for Healthcare Delivery” to bring existing knowledge into greater practice and improve health. “In a way, we are more likely to save more lives in the next decade by understanding how to close the gap between what we know and what we do than by discovering new things.”

After Atul Gawande’s presentation, panel members Harlan Krumholz, MD, Elizabeth Pivonka, PhD and Veronica Nieva, PhD spoke both before and after the article continues on page 7.
Letter from the Trustees

Jeffrey Sachs, the development economist, has written about the importance of investing in sustainable technologies for healthy global growth. He’s said that the traditional “R&D” — research and development — won’t get the job done. What we need to invest in, he asserts, is “R, D, D & D,” research, development, demonstration and diffusion.

We think that if Jeffrey Sachs had been in the audience of our annual meeting this past April, he would have approved of the approaches for medical and health research advocated by our keynote speaker, Atul Gawande, and panelists, Harlan Krumholz, Elizabeth Pivonka, and Veronica Nieva. Each person told their story of getting from research findings to impact, and it involved many efforts beyond creating and testing a new practice or intervention. These efforts go far beyond proving the null hypotheses is false — they include demonstrating the transportability of the intervention to different settings and populations and diffusing it through a variety of different channels to reach their target population. As Veronica Nieva said, “knowing is not the issue.…”

We were thrilled with the results of this meeting — the number of people who attended (over 250), the number of organizations represented (more than 100), the quality of the speakers, and the discussions that ensured. The conference is a huge undertaking for Donaghue staff, most notably Wendy Vachon and Nancy Yedlin, and we do it because it is an important vehicle for Donaghue attaining its larger goals. The themes presented in these meetings signal to a wider audience what is important to Donaghue as we consider our role in the research enterprise. As our keynote speaker noted, there is tremendous promise for improved health in many of the research studies already completed; what we need are improved ways to implement those findings into more common practice.

Donaghue Program for Research Leadership Update

May 5 was the deadline to receive letters of intent for the Foundation’s new Donaghue Program for Research Leadership. Twenty-six letters were submitted. “We’re pleased by the number of submissions,” said Stacy Cloud, Donaghue Grant Administrator. “We understand that the program has some components that may be a little more unusual, so we didn’t know how many to expect for this first year.”

After reviewing these letters with the program’s review committee chair, Greg Diette, MD (see article about Dr. Diette on page 6), letters that contained all of the required program elements will be invited to submit an application, due on July 14.

“It will be very interesting to see the applications and what people will put together,” said Nancy Yedlin, Director of Program Communication & Management. “For $1 million over four years (which is nearly what the award will be with indirect and cost-of-living increase), we would really love to see some creative ideas on uptake and team building that go hand-in-hand with compelling research questions. Based on feedback that we’ve received, we’re going to consider providing a bit more support to applicants about these aspects of the program for next year.”
We often hear people say that Ethel Donaghue’s will made the Foundation a Connecticut-based funder, but this is not the case. There is no reference in her will as to what institutions should be the beneficiaries of her trust or its geographic domain. Establishing the Foundation as a Connecticut funder was and continues to be a Trustee policy.

Careful readers of Donaghue’s annual reports will notice a loosening of the Foundation’s bonds to Connecticut-based grantmaking over the years. The Foundation’s mission was first published in its 1994 annual report, and it expressed that it would support research “in Connecticut.” In 2000 the Trustees revised the Foundation’s mission to state it would support “useful health research, primarily in Connecticut.” And in the most recent version of its mission, the word “Connecticut” does not appear at all.

Before last year there had been very few grants made to non-Connecticut research — slightly over $1 million of the nearly $70 million in total grants made. The request for proposal that was issued for our patient safety research initiative was the first time that we explicitly designed our grant-making to go beyond the state. This program was intended to support research on the role of leadership on patient safety in acute care hospitals. Because hospitals, in collaboration with academic researchers, were the applicants, we expanded the request for proposals to include the six New England states to ensure a robust pool of applications. This program has added another $1.1 million to the “out of Connecticut” tally. As Donaghue develops other grantmaking interests in more specific lines of research, we may again need to seek applicants from outside the state.

We are also reaching outside the state boundaries for the scientific advisers committee of the new Donaghue Program for Research Leadership. Because the focus of that program is on senior investigators at Connecticut research institutions, we felt that a committee of reviewers from other institutions would be better. Many of the people who we might ask to be a reviewer might work with or be the type of researcher who is well suited to apply to this program. Although we observe a carefully structured conflict-of-interest policy with our current review committee, we felt that creating a new committee with members outside of Connecticut would be the best.

All that being said, for the foreseeable future Donaghue will keep the majority of its funding in Connecticut research institutions. With close proximity, we are able to develop and maintain valuable relationships with these institutions and individuals. The benefit of having this many official and unofficial advisers serves the Foundation well.

Donaghue Dictionary: Beyond

Donaghue’s efforts go past the point of discovery, or Beyond Eureka. According to the standard dictionary definition, the word “beyond” means “to the far side of” or “farther away.” The appearance of the word “far” in the definition creates a suggestion of distance unless a limiting modifier such as “just” or “barely” is added; the Donaghue Dictionary definition doesn’t use these modifiers and therefore includes distance. Our Knowledge Uptake focus, which takes us “Beyond Eureka,” or to the far side of discovery, means that Donaghue takes the concept of “beyond” past the point of research results. If you read between the lines, our version includes a silent “really far,” as we work to “go the distance” in finding ways to take knowledge all the way to practical benefit.
Much of the research Donaghue funds involves recruiting subjects in situations or from populations that pose significant challenges. Far and away, the largest reason for requesting no-cost extensions for grants from the Foundation is because subject recruitment took more time than expected.

Kalpana Gupta, MD, MPH, received funding from the Donaghue Foundation for a pilot study to assess the feasibility of using cranberry in a standardized, capsulated form to prevent UTIs. If the results show that this approach is feasible, they will be used to design a placebo-controlled trial of the efficacy of cranberry.

The researchers encountered unanticipated obstacles in doing the study. Dr. Gupta, who left Yale for a position as Chief, Infectious Diseases at the Boston VA Health Care System, and Dr. Manisha Juthani-Mehta, assistant professor of internal medicine and infectious disease, who replaced her as the primary investigator, discuss some of the challenges of recruiting organizations and individuals in clinical research.

Why did you change your recruitment methods?

Dr. Juthani-Mehta: Originally, we thought it would be easier to obtain clean urine specimens with residents of assisted living facilities than with really debilitated patients in nursing homes. We also thought that since these people were capable of making decisions for themselves, it would be less complicated than having to get consent from family members.

Dr. Gupta: What we found was that although people in assisted living facilities are considered cognitively intact, the range of cognitive ability is huge. When we tried to enroll people, we worried whether many of them really understood the consent form they were signing. Frequently, family members weren’t available if the participant wanted to confer with them; nor were they legally authorized to make decisions. So we decided to enroll people in nursing homes who, although more debilitated, had legal health care representatives. That way, we knew the consent was valid.

How did you get consent from family members?

Dr. Gupta: We asked the sites to designate a staff person who knew the family to make the first phone call; that way, the initial contact wasn’t with a stranger and the family member wasn’t turned off right from the start.

Dr. Juthani-Mehta: We followed up with a phone call to see if they had any other questions. We also mailed them information and spoke with everyone, as often as they needed.

Are these problems inherent in research with an older population?

Dr. Juthani-Mehta: In my experience, you can get an 80 or 85% participation rate in this age group in observational studies, such as chart reviews. But the minute you say you’re going to do something with the resident, the rate drops to 50%.

Urinary tract infections (UTIs) occur frequently among nursing home residents. UTIs cause discomfort and often lead to other more serious conditions — even resulting in hospitalization. Even in the absence of UTI symptoms, many residents have a high rate of bacteria in their urine, which can lead to unnecessary use of antibiotics.

The study included two phases: a three-month observational period during which urine was to be collected from each study participant on a regular schedule, followed by a six-month intervention period when participants would be randomized to receive no cranberry capsules, two 400 mg capsules once daily, or two 400 mg capsules twice daily.
So it was very important to fully explain the risks and benefits to family members. Many were enthusiastic because they’d heard or read about cranberry in the lay press. Yet, they still might say: “My mother is 90, she’s been through enough.” Or, “Every little thing agitates her if I’m not by her side; it’s hard enough for staff to do what’s necessary without adding more.”

**Were there problems at the nursing homes?**

**Dr. Juthani-Mehta:** It was usually pretty easy to get buy-in from the head administrator, the director of nurses and the medical director or medical board. But we encountered challenges with the staff.

**Dr. Gupta:** For example, there were logistical problems at the actual nursing area. Nurses asked, “How will this work? Where are you going to sit?”

To minimize additional work for nursing home staff, we offered to have our own research nurse collect urine samples. But staff told us: “It’s better to have the people who actually care for these residents do the collection, because the residents know them.”

The nursing aides bore the brunt of this decision; they have tough jobs where a lot is expected of them. We struggled with ways to make the extra work worth their while. The change also meant we had to consider quality control.

**How did you reach out to staff?**

**Dr. Juthani-Mehta:** We could only give them tokens of appreciation, so we brought in coffee and donuts, lunch or gift cards. And we found that if there’s at least one person on the ground committed to the project the project will work.

**Were there other obstacles?**

**Dr. Gupta:** We had to simplify the protocol but every time we made a change, we had to go back to the IRB. There was a lot of productive dialog, but it slowed down the process.

**Did recruitment problems affect the research?**

**Dr. Juthani-Mehta:** We enrolled fewer subjects than planned, and more of them came from the nursing home level. We’re doing data analysis now and, fortunately, the smaller sample size will be sufficient to meet our main objectives.

**If you were writing this proposal today, how would you change it?**

**Dr. Juthani-Mehta:** Many investigators underestimate the amount of time, energy and money that’s needed for recruitment. You have to build in extra numbers of subjects; whatever number you want, multiply it by three or four; you also have to factor in the staff time it takes to go to more facilities.

**Dr. Gupta:** Even before I wrote the proposal, I’d probably try to find facilities that were willing to participate. I’d also want to solidify the research process at the nursing home before I submitted the application to the IRB. To try this at the assisted living level, we’d have to design a consent process that gets the subject and the family member involved, even if the subject isn’t legally impaired.

**Is there an overall lesson you take away from your experience?**

**Dr. Gupta:** We were trying to apply our research methods to a clinical setting. The problem is that there is no existing infrastructure — extra staff time and even physical space — in the clinical setting. We didn’t appreciate this fully in our initial proposal. It’s funny: once we got in and realized we couldn’t separate our research staff from their clinical staff, marketing, people management and business skills became necessary, rather than scientific expertise.
Gregory B. Diette, MD, MHS has been appointed by the Foundation’s trustees to chair the science review committee for the Donaghue Foundation Program for Research Leadership. For this new grant program, Dr. Diette will fulfill all the duties generally undertaken by a committee chair, such as helping to select and assign reviewers to applications and convening and leading the review committee deliberations. In addition he’ll provide input to assist the Foundation in the inaugural year of implementing this new program. Dr. Diette is Associate Professor of Medicine and Epidemiology at the Johns Hopkins University School of Medicine in Baltimore, where he is the Director of Clinical Research in the Division of Pulmonary and Critical Care Medicine.

“We had the opportunity to meet Greg Diette last December and learn about his work on asthma when he participated in a think tank session sponsored by the TRiPP Center at the UConn Health Center,” says Lynne Garner. “We were struck by how his research, using a transdisciplinary team, was working on both understanding the underlying causes and biologic effects of asthma and then directly applying that knowledge to address the problem of asthma in the community. It was a great match for what we are trying to achieve with the Donaghue Program in Research Leadership. We’re delighted that Dr. Diette is making the time to assist us.”

Dr. Diette and his colleagues at Hopkins Bloomberg School of Public Health recently received a $12 million grant to establish a new Center for Childhood Asthma in the Urban Environment. The new center’s team will tap a variety of disciplines: pulmonology, pediatric immunology, toxicology, environmental health engineering, epidemiology, and biostatistics. The NIH grants have been designated for research that combines basic science with clinical practice.

Dr. Diette received his undergraduate degree in Economics from the Wharton School of the University of Pennsylvania, the Doctor of Medicine degree from Temple University and a Master’s degree in Epidemiology from the Bloomberg School of Public Health at Johns Hopkins University. He completed a residency in Internal Medicine at the Hospital of the University of Pennsylvania and fellowship training in Pulmonary and Critical Care Medicine at Johns Hopkins Hospital. Dr. Diette is a pulmonologist and has a practice devoted to the care of adults with obstructive lung diseases, including asthma and COPD. He has an extensive portfolio of patient-based research in asthma and COPD, supported by the NIH and other sponsors. Dr. Diette’s current research focuses on identifying environmental causes of obstructive lung diseases as well as understanding and reducing dispari-

Clinical & Community Health Issues Award Winners

During the spring cycle of Donaghue’s Clinical and Community Health Issues program, 13 applications were reviewed and the following grants were awarded.

Augustus Mazzocca, MS, MD
University of Connecticut Health Center
The effect of early range of motion on clinical outcomes, patient satisfaction, and cuff integrity following arthroscopic rotator cuff repair

Robert M. Beech, MD, PhD
Yale University School of Medicine
Gene-expression algorithms to predict lithium response

Twice a year the Clinical and Community Health Issues program awards grants for clinical, behavioral and other health-related research projects that address the major medical conditions and social problems influencing the health of individuals, groups and communities. A letter of intent is required prior to submitting an invited application. Further information about this program is available on Donaghue’s website.
lunch break. Harlan Krumholz described “D2B,” Door to Balloon, an effort to decrease the elapsed time between when a patient arrives at the emergency department with a heart attack and the time he or she is treated in the cath lab. He asserted that how to implement changes in the way care is organized and delivered to shorten “wait time” is important knowledge. After he and his partners, including Dr. Betsy Bradley of Yale School of Public Health (a Donaghue grantee), found the answers to how hospitals could reduce the time to angioplasty, “we didn’t do the old style — to publish our findings, go to meetings and see if others were smart enough to do something with it,” Krumholz said. With the American College of Cardiology and 38 other organizations, they created the D2B Alliance, which now has more than 1,000 hospitals enrolled in the effort to decrease the times from entering the emergency department to heart surgery.

Elizabeth Pivonka, President of the Produce for Better Health Foundation, moved the discussion from clinical examples of translating research to practice to one that focused on disease prevention. “Research has demonstrated the importance of eating more fruits and veggies for our health; we now need to learn the best ways to get people to actually do that,” said Pivonka. Produce for Better Health Foundation, formerly the “5-a-day” organization, has spend significant resources on brand positioning and message dissemination. She emphasized that simply knowing that doing something is good for you doesn’t translate into changed behavior. “We can’t just give people the facts that it’s better for you but we also need to give them the how-to.” People need to make an emotional connection in order to act on the knowledge, Dr. Pivonka pointed out. To do that, Produce for Better Health has tailored their message to appeal to “Gen X moms” as the way to get families to eat more fruits and vegetables. Veronica Nieva spoke about the Agency for Healthcare Research and Quality’s new innovations exchange. This website is a vehicle for health care professionals to share and adopt innovations that improve the delivery of care to patients by inviting users to be a part of an innovators’ community. Both success stories as well as “attempts, the first steps towards success,” will be highlighted on the site. Nieva acknowledged that, as the previous speakers had stated, it is important when trying to create change to move beyond simply giving people facts to providing motivation, but she added that it is also important to recognize that people need to have skills in how to implement change. “We haven’t paid sufficient attention yet to the skills aspect of [changing] our healthcare system.” Nieva invited members of the audience to explore the Innovations Exchange website for helpful tools and resources and to send information about their innovations to be considered for inclusion in the Innovation Exchange.

Many of the Foundation’s past and current grantees attended the meeting and 2007 Donaghue grant awardees were recognized, as well as Foundation policy and science advisers who had served for either five or ten years on Foundation committees. Several media outlets including WTNH-TV, the Danbury News Times, The Hartford Advocate and radio stations WDRC and WTIC covered the “Beyond Eureka “conference running pieces about the meeting and the work of the Donaghue Foundation.
1st Annual Andrews Lecture on the Patient’s Voice

Donaghue is starting a lecture series this fall to honor Ray Andrews’ stewardship of Donaghue during the past fourteen years. This series will focus on “the voice of the patient.” And will feature speakers who have demonstrated through their research the value of the patient’s experience from a variety of perspectives, such as an individual’s perception of illness, a person’s view of him or herself as a “patient,” or the patient’s interaction with family and health care practitioners, the health care system and broader society.

Eric Cassell, MD, will present the inaugural lecture on Wednesday, September 17, 2008 at 4:00 PM at the Anlyan Center on the medical school campus of Yale University. Dr Cassell will discuss “Treating the patient or healing the person: What should be the goal of medicine?”

Eric Cassell, MD

A reception will also be held in the lobby of the Anlyan Center following the lecture.

Dr. Cassell retired from his practice in internal medicine in 1998 and continues to be active in writing, lecturing, and consulting. He is currently professor emeritus at the Weill Medical College of Cornell and an adjunct professor of medicine at McGill University, where he is working with others to redesign their medical school curriculum to one that is oriented toward and centered on the patient rather than on disease.

In commenting on the new lecture series, former Trustee Andrews said, “A focus on the patient’s perspective is a wonderful idea, and I’m thrilled that the first lecturer will be Dr. Eric Cassell, from whose insightful writings I derived inspiration for my Donaghue work.”

The lecture will be open to the public, and additional information about the lecture will be available soon on the Foundation’s website (donaghue.org).