A NEWSLETTER OF THE DONAGHUE MEDICAL RESEARCH FOUNDATION

Practically Speaking

NUMBER 15, FALL 2003

Improving Organizational Performance

A conversation with Donaghue Investigator Elizabeth Bradley, PhD

"True or false: when medical research reveals that an intervention considerably improves patients' chances for recovery, it is quickly adopted in the clinical setting. The answer — an unequivocal *sometimes* — piqued the curiosity of **Elizabeth H. Bradley, PhD**, associate professor in the Department of Epidemiology and Public Health at the Yale School of Medicine, and set her on a five-year course of Donaghue-funded study that promises to elevate the burgeoning field of health services research. With formal training in health policy, economics and epidemiology, and a career stop as a hospital administrator, Dr. Bradley brings robust tools and perspectives to her study of the factors affecting the variable application of new scientific knowledge at different Connecticut hospitals.

"Dr. Bradley represents a new brand of Donaghue researcher working in a highly relevant and distinctly under-represented field of study," wrote the Trustees when naming her a Donaghue Investigator in 2002. "We are impressed by the practical potential of her work for organizational progress in health care."

We recently sat down with Dr. Bradley to talk about her research.

Elizabeth H. Bradley's research into the mechanisms of performance improvement is helping to uncover best practices for the provision of care in a hospital setting.

Dr. Bradley, you received a Clinical and Community Health grant from Donaghue in 1998, and more recently became a Donaghue Investigator. Tell us about the earlier research.

The '98 grant was a community-based survey of 200 African Americans and 200 white people — all 65 or older — who had been in the hospital in the last year, in an effort to understand racial disparities in long-term care. African American elderly suffer many more disabilities than white elderly. They have poorer insurance, less income — lots of reasons that contribute to higher risk for needing long-term care. But the use of long-term care by African Americans has been lower than whites, even though there would seem to be greater need. So we were trying to understand what it is about African Americans, as a group, that ultimately explains the different patterns of use.

How do you define long-term care in the study?

We looked at four kinds, actually — nursing homes, home care, adult day care and informal care — and they had interesting differences. African Americans tend to use less nursing home care, and more home care and informal care. Why is that? Is that racism in our

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The Foundation's Purpose, from Article Fourteenth of the Will of Ethel Donaghue: The Foundation established hereunder is created and shall be operated solely for the purpose of providing financial assistance for research in the fields of cancer and heart disease and/or other medical research to promote medical knowledge which will be of practical benefit to the preservation, maintenance and improvement of human life.

> "While responsible foundations deserve and would prefer to be viewed as faithful trustees of their assets and missions, the occasional bad apples cause concern about what may be happening in the barrel."

Practically Speaking is published quarterly by the Donaghue Medical Research Foundation, a charitable trust created pursuant to the Will of Ethel F. Donaghue, late of West Hartford, Connecticut. The Foundation, which began operations in 1991, is governed by Fleet National Bank and Raymond S. Andrews, Jr., Trustees. The Foundation is exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code of 1986, is a private foundation within the meaning of Code Section 509(a), and is subject to the jurisdiction of the Probate Court for the District of West Hartford.

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FROM THE TRUSTEES

Whose Money *Is* It, Anyway?

When you take very seriously your responsibilities as a charitable trustee, you can get quite out of sorts reading about the travesty some make of the position. The sobering truth is that some who wear the cloak of fiduciary duty either don't know or simply don't *care* where the assets of their charitable trust or foundation came from or what they're for.

Some recent events have seemed to call into question the very meaning of service as a trustee. For the past several months the philanthropic community has been ill at ease about pending federal legislation aimed at tightening the regulation of private foundations, which have been perceived by some as wandering from the spirit of charity into self-serving excess. The proposed legislation would limit the expenditures a foundation can claim as "qualifying distributions" to meet an Internal Revenue Service requirement that at least five percent of a foundation's worth be distributed each year. The public probably thinks that private foundations must give to *charity* a certain amount each year — after all, isn't that what foundations are for? The truth of the matter is that they must simply *spend* that amount, if only on themselves. Luxurious quarters, lavish meals and entertainment, country club memberships, conveniences like jet aircraft, and unbelievable compensation for token work are all oddly on a par with payments to benefit the needy, the sick, and the homeless — at least until the law is changed. While responsible foundations deserve and would prefer to be viewed as faithful trustees of their assets and missions, and left alone to do their charitable work unimpeded by burdensome regulation, the occasional bad apples cause concern about what may be happening in the barrel.

The *Boston Globe* recently took a look in the barrel, making public in early October an investigation it had conducted into foundation practices. The public should be informed of such practices; it is everyone's tax dollars that subsidize foundations, which enjoy valuable tax exemptions and whose contributors enjoy valuable tax deductions. The *Globe* series highlighted several examples of egregious behavior on the part of individuals who held the title of trustee[1] but made a mockery of the title by engaging in inexcusable practices. Because of their misconduct, funds dedicated to *public* benefit were diverted to *private* use.

It's discouraging enough to read daily of widespread cheating in business and in mutual fund management. It is even worse to learn that organizations masquerading as altruistic benefactors of the needy – of arts and culture, of the public interest — are in fact convenient hiding places for the machinations of the dishonest. In one case highlighted by the *Globe*, one family foundation trustee (director), operating without the knowledge of two siblings who were also trustees (though strangely indifferent to their fiduciary duties as such), made a hobby of fumbling the foundation's investments, such that its net worth plummeted in just a few years. The charitable work of the foundation was simple, a fairly rote list of straightforward grants each year, requiring at best a few hours of work. For this effort the trustee rewarded himself (he had no supervisor, despite his crying need of one) with annual fees exceeding a million dollars, far more than the foundation gave to charity. For this disgraceful behavior, our society allowed the errant trustee to keep the honor of the position and the enjoyment of his misappropriated gain and — so far, at least — has exacted no price.

The two people serving as trustees of the Donaghue Foundation, one individually and

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[1] Technically a trustee is responsible for a trust, not a foundation organized in corporate form. In common parlance, board members of a charitable corporation, legally described as "directors," are referred to as trustees. The *Globe* series focused on board members of family foundations. Trustees under a will must account regularly to a probate court. Directors of a corporate foundation have theoretical accountability to regulatory authorities like the Internal Revenue Service but in fact are woefully under-regulated. Their conscience is really their only meaningful guide.

ANNOUNCEMENTS

Changes Ahead for Donaghue Investigator Program

2004 will see a sharpened focus in the Donaghue Investigator program. For the application cycle, the Trustees will be accepting applications from investigators pursuing research in the areas of pain management, patient safety, injury prevention, the organization of health delivery services, or programs that are testing interventions to relieve suffering or prevent disease. This change is being made to advance the Donaghue Investigator program goal of selecting leaders across a broad spectrum of research fields. Several important areas of research are not yet included in the growing complement of Investigators.

Other changes in the 2004 Donaghue Investigator program relate to the application process. The application deadline this year is 12 Noon, Thursday, April 29, 2004, several months later than it has been in the past. Also, we will no longer send out printed applications to investigators or institutions. Instead, applications may be downloaded from the Foundation website (www.donaghue.org) in Microsoft Word format; investigators will also have the ability to input their information using Microsoft Word. The new application format will be available in mid-December. We will no longer require 20 copies plus the original; instead, we will require that one printed and signed original and a CD copy of the application be delivered to the Foundation office. If you have questions about these changes, please call the Foundation.

Practical Benefit Initiatives to Begin Again in 2005

A part of the Foundation's recently developed five-year plan was to decrease spending to maintain the level of Foundation assets that will ensure a suitable memorial to the Donaghue family. The most notable area in which spending has been reduced is the Practical Benefit Initiatives program. For the first time since the program was established, no large initiatives were developed this year.

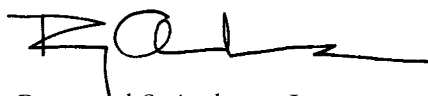
The Foundation's decreased spending in all three of its programs, combined with a more productive stock market, is already providing the expected results. Consequently, the Trustees have decided to develop new Practical Benefit Initiatives for funding to begin in 2005.

Practical Benefit Initiatives is a program of Foundation-initiated research projects. During the next 12 months, the Trustees and staff will identify areas for developing projects for 2005 and 2006. Please call the Foundation office if you have questions about the Practical Benefit Initiatives program.

From the Trustees (continued)

one on behalf of Fleet Bank — have many combined years of experience in trust law and administration. We share a strong commitment to exemplary trusteeship. We value our reputations as competent and conscientious fiduciaries far more than the fees we are allowed by the probate courts. We know whose money we are entrusted with and the purpose for that trust. We believe in public accountability for funds intended for public benefit. Our pride in our position and our performance compels us to deplore the conduct described in the *Globe* series. It is regrettable that some persons who wear the mantle of trustees cannot be presumed to know their jobs and be trusted to keep their fingers out of the cookie jar.

As Miss Donaghue entrusted her money to us, we entrust it to researchers who have the talent to carry out our mission of practical benefit to human life. And we seek to impress upon those to whom we give grants the importance of remembering whose money they have been entrusted with by us. We don't want anyone dealing with the Foundation to take either Donaghue money or public benefit for granted.



Raymond S. Andrews, Jr.
Trustee

Grant Application Due Dates:

Clinical & Community Health Issues

Spring 2004 Cycle 1:
January 29, 2004

Applications Due:
- New Statements of Intent
- Revised Statements of Intent
- Revised Full Applications
- Full Applications

Fall 2004 Cycle 2:
September 2, 2004

Applications Due:
- New Statements of Intent
- Revised Statements of Intent
- Revised Full Applications
- Full Applications

Donaghue Investigator

Applications Due:
April 29, 2004

"We want to identify variables that lead to improved performance. In some hospitals it may be one physician who champions excellence in this area. In others, it could result from complex organizational processes and team interactions. In still others, there may be an innovation in the procedure itself. I think there's going to be great diversity in how hospitals have achieved quality improvement in this area. Our goal as researchers is to find the common denominators."

Improving Performance (continued from page 1)

system? Is our system unresponsive to them? Or is it just their preferences?

This is certainly an important issue as the population ages and the older population becomes more ethnically diverse. Whereas 12-15 percent of our elderly were minorities in the early 1990s, 30 years later we expect that to be about 30 percent. That's a huge change. So the goal was to understand the predictors of use of our formal long-term care system.

What were the relative findings?

We found that there was a set of psychosocial variables that really predicted use of formal and informal care, and these seemed particularly strong in the African American population. While need really drove use in the white population, social norms were the larger influence in the African American population. Some of these variables were complicated and there were enormous difficulties in measuring them. But one factor that was clearly important was the degree to which African American elders feel family obligation and family responsibility to care for each other in their old age. White elders were much lower on that.

One of the most surprising findings in the study was an apparent absence of discrimination in the system. We had a lot of measures of racism in the study, but we couldn't find anything — although, because discrimination is often hidden and underneath, I'm not sure we would have been able to measure all its nuances.

Your study helped to revise a model used in health services research.

That's right. Researchers typically use the "Andersen model," which includes the many variables that predict health services use. Through our Donaghue research we were able to publish a new model with Andersen — the "Andersen model revisited," if you will — which includes some of the psychosocial and cultural variables we examined. That's probably the biggest contribution we ultimately made from the Clinical & Community Health grant.

Let's switch gears and talk about your research as a Donaghue Investigator. What is the focus there?

It's quite different. The focus is to provide evidence about how hospitals and teams drive change in the processes they use to improve the quality of clinical care. There are a lot of consultants and advisers who say, "You really need a new computer system, clinical pathways, or physician-specific data feedback reports," but we really don't have good evidence to support these recommendations from an empirical basis. If you can demonstrate empirically — "do the hospitals that have computer-supported physician order entry or clinical pathways or standing orders actually *do* better?" — then that would give us a lot more faith in the clinical management tools that hospitals invest in. By linking the various experiences of the hospitals, we're trying to articulate best practices so that others can hopefully replicate them.

It's difficult research. We are finding that clearly there's something inside the black box, something related to the internal organizational culture, or climate, that drives improvement. This finding, while hard to measure quantitatively, comes out very strongly in the qualitative interviews and site visits.

With a corporation, you might measure quality improvement by looking at the bottom line dollar. What outcomes are you concerned with when you measure quality improvement in a hospital setting?

In hospitals, we're examining clinical process measures. We know from multiple and rigorous randomized trials and observational studies, for instance, that if you give beta-blockers after an acute myocardial infarction (AMI), it reduces morbidity and the risk of having another heart attack down the road.

And yet, when you look across the country, rates are all over the board. At some hospitals, the rate of beta-blocker use after AMI is much lower than at other hospitals. We want to find out *why is that*?

Another outcome we're looking at is time to acute reperfusion with patients who have heart attacks with ST-elevation, or "STEMI." The research is clear as a bell that patients who have these kinds of heart attacks should have their coronary arteries opened quickly — one or two hours after onset of pain is ideal — to save as much heart muscle as possible. There's a much better chance of survival, and lower probability of another heart attack,

if you restore blood flow quickly. At some hospitals, however, the median time to reperfusion is 200 minutes, while at others it's 45 minutes. *Why is there such great variation?*

Using the National Registry of Myocardial Infarction database, we ordered hospitals by median time to acute reperfusion for patients with this condition, and identified 35 hospitals that were under 90 minutes. Now we're visiting them to ask, "How did you do it?" It's really interesting because some have these incredibly innovative processes that they talk about — and not all of them did it right away. They also talk about their struggles and how they got through those to improve the process of care.

Do high-achieving hospitals target their performance in this area…or is it just a random result?

We hope it's not just random because we want to identify variables that lead to improved performance. In some hospitals it may be one physician who champions excellence in this area. In others, it could result from complex organizational processes and team interactions. In still others, there may be an innovation in the procedure itself. I think there's going to be great diversity in how hospitals have achieved quality improvement in this area. Our goal as researchers is to find the common denominators.

What stage is the research in?

We're currently on the national study, visiting the 10-12 hospitals at the very top, and we've completed about half of those. In addition, we're visiting every hospital in Connecticut — I've gone to about a third of those. We're learning a lot in Connecticut, but we're also educating as well, because we're learning a lot in the national study that we can share with the Connecticut hospitals.

What kinds of steps are involved in the research? Do you interview key hospital personnel, study their records?

Both. The beginning of the study is qualitative, which is great for understanding factors that reflect complex social interactions within a hospital. We look at their records or documents — not medical records, but such things as web sites, written protocols, and organization charts. And we conduct qualitative interviews with everyone who has been involved, including cardiologists, nurses, paramedics and administrators. We ask them to help us understand the trajectory they went through to improve the process of care — what they did when and what strategies they pursued that they found successful or not. Then we go back, study the data with rigorous qualitative analysis methods, and try to pull out the common themes.

The next step is to design a quantitative survey that will allow us to test a number of hypotheses generated by the site visits and interviews. We hope to be able to draw statistical inferences about organizational culture and other factors we think characterize the best performing hospitals.

To what degree are your hospital subjects a "moving target"?

We have seen examples where a hospital's articulation of their shortcomings prompts change. In our national study, when a hospital team member tell us things during our fact-finding, someone else on the team will invariably say, "Really? That happens? We can fix that." So they learn about their own process by describing it to us. And I'm sure they think about those things after our visit and maybe address what they have revealed to themselves. This is clearly one outcome of this research.

In your work on beta-blocker use, you classified quality improvement strategies under four key domains: shared professional goals, administrative support, strong physician leadership, and effective data feedback. Do those categories fit for the STEMI patient research?

We're finding that organizational responses are very complex, and depend on the clinical process. The process of improving beta-blocker use is totally different from the process of improving time to acute reperfusion. They involve different people and different leverage points. I think we all want a magic bullet — we want to say that if you do A, B and C, you'll improve care. We could put it on *Nightline*, call all the hospitals and say, "Just do these simple things!" I guess one of our five-year findings will be that it's a little more complicated than that — but here are a couple common denominators.

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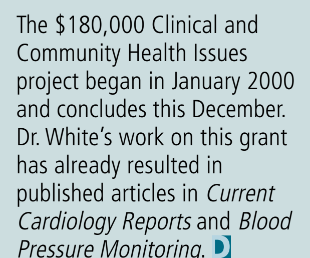
GRANT IN REVIEW

"Blood Pressure Measurement During Pregnancy"

William B. White, MD, University of Connecticut Health Center, and Deborah Feldman, Hartford Hospital

Hypertensive disorders during pregnancy are a major cause of maternal and perinatal illness and even death, affecting 10 percent of all pregnancies in the U.S. Preeclampsia, causing substantial morbidity to both mother and fetus, is associated with hypertension. Measuring blood pressure during prenatal visits in physicians' offices has been the standard method to identify and monitor hypertension, but increasingly health professionals have recognized that poor measurement techniques, or "white-coat hypertension" — an elevation of blood pressure during a doctor's appointment that is unrelated to disease — leads to incorrect assessment of hypertension, causing unnecessary concern and additional evaluation.

The goal of Drs. White and Feldman's study is to determine whether out-of-office measurements of blood pressure, such as self or ambulatory blood pressure monitoring, are better than those performed in the doctor's office at forecasting the development of preeclampsia in pregnant women with high blood pressure.



The $180,000 Clinical and Community Health Issues project began in January 2000 and concludes this December. Dr. White's work on this grant has already resulted in published articles in *Current Cardiology Reports* and *Blood Pressure Monitoring.*

“I feel an obligation to disseminate, but I don’t think it’s for everybody. Translation may take extra effort, but we learn a lot from audiences when we disseminate our work. People ask questions, which sometime spawn new research questions. In the best translations, information flows both ways and we all benefit.”

Interview (continued from page 5)

I think organizational environment and culture are going to become common denominators. Leadership, too — both clinical leadership and senior administration leadership — is incredibly important. And you really have to get excited about the clinical area in question because the answers may vary depending on the clinical process you are trying to improve. The other finding I think we’ll see is that some of the factors are quite subtle and involve a complex interaction between people and systems, as opposed to something that can be addressed quickly with a single intervention.

Donaghue, as you know, is very interested in practical benefit. One important component of practical benefit is dissemination of new medical knowledge. How have your career experiences benefited you there?
In many ways, I think I’ve been preparing to do this kind of research all my life. I was a hospital administrator for several years and, in fact, was involved in the first quality improvement project at Massachusetts General Hospital. When I look at the data and go back and translate the findings to people in the hospital setting, I have a sense of where they’re coming from, of what the issues really are. It grounds me to have had that experience, the same way physicians are grounded when they do clinical research. I have a sense of what language people will relate to. Maybe that’s one of the most important things: I can be a bridge.

Tell us about some of the innovative steps you’ve taken to disseminate your work.
I’ve done three things I think have been very useful. The first was a national conference call to review a study I had done with a research team that focused on administrative support: we all know we need support from the top, but *what is it*? The call was organized by the Center for Medicare and Medicaid Services, the Agency for Healthcare Research and Quality (part of NIH), and the Colorado Peer Review Organization. On our end was [prior Donaghue grant recipient and current policy adviser] Harlan Krumholz, MD, myself, and Gayle Capozzalo, an executive vice president of Yale-New Haven Health System, to talk about our study. On the other end were about 1,000 lines — with an average of four people per line — so we think about 4,000 individuals participated in the call, including quality improvement people, hospital administrators and physicians. We talked for 40 minutes or so about our research and then fielded some great questions. And we received lots of email after the conference call from all over the country, demonstrating great interest in this work.

We’re thinking about organizing more of these conference calls as our research comes to fruition, because it’s a great way to disseminate information. And partnering with the sponsors made it so much easier. Dissemination is really marketing, and PhDs generally don’t know much about marketing. So partnerships are key.

This is a high-tech approach to dissemination, quite a far cry from the dusty medical journal sitting on the shelf waiting for someone to come over and pick it up.
Ironically, I have to say that at the top-performing hospitals for AMI care, they’ve *read* those dusty medical journals. Hospital staff focused on improving the quality of AMI care often reference articles in *JAMA* and the *New England Journal of Medicine*. So it goes both ways. I think that’s a sign that organizations that want to be on the cutting edge are *finding* the research. At the same time, we have to be smart about how to channel the research into messages that are accessible to those who don’t read the traditional literature.

What are your other recent dissemination activities?
The other two things that I’ve done recently are Connecticut-focused. The Connecticut Hospital Association and Qualidigm, our state’s quality improvement organization, sponsored a series of working collaboratives for area hospitals, which include a workshop and a speaker. I gave a talk there titled “Making Quality Part of Your Culture.”

And then, just recently, I gave a talk to the Connecticut Healthcare Association for Quality, which is a national organization with a Connecticut chapter. These presentations involved several of our state’s hospitals and, I think, has made me — and our research — more accessible and hopefully more useful.

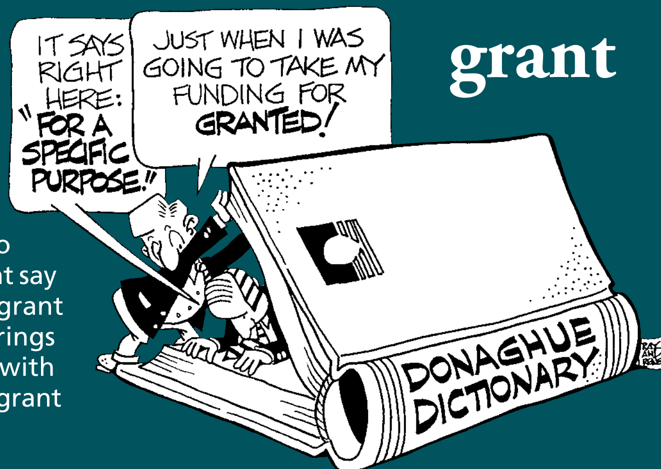
What drives your efforts to communicate new knowledge as a researcher?
I do a lot of thinking about that. Dissemination takes a ton of work, and it takes communication skills. Sometimes I wish I had a handler that I could just give my data to and say, "Go deal with it." But I have found that that is not successful either, because it gets spun and sanitized, and you sometimes lose control. So I feel an obligation to disseminate, but I don't think it's for everybody. There is a sector of researchers who will also be translators, and I think I'm in that group because my work is in such an applied area. Translation may take extra effort, but we learn a lot from audiences when we disseminate our work. People ask questions, which sometime spawn new research questions. In the best translations, information flows both ways and we all benefit.

We have talked about your diverse background. What has inspired you to follow a less traditional career path?
I spend a fair amount of time thinking about that, too, because you get a lot of advice — especially early in your career — on how and where to focus your research efforts. I have always felt that if I have something to contribute in an area, I'm going to try to contribute. Some of the greatest achievements in our society have not been run of the mill. They've been things that people called non-traditional — and from these we get a great innovation. Why not try to do things differently? That's what we're asking these organizations to do — to think innovatively, outside the box. In some ways I think that maybe we should do that as individuals, too.

Where do you see health services research 10 or 15 years down the road?
I think that we'll become more sophisticated and more focused, with better data and better technology to manipulate the data — and better strategies to translate the data into practical use — than we've ever been before. We'll be able to make more evidence-based decisions. To me, that is what is exciting about health services research. Bringing hard data and evidence to these soft ideas will create many new opportunities. Ultimately, I think we can go to a more evidence-based model for running our health care system. These are topics that haven't been well researched, so it's going to take people who have had practical experience, and who have the statistical data and research methods to merge these things together. Health services research will enable our health care system to continually improve in the future.

Among the many references to "grant" in the "regular" dictionary is "a gift for a particular purpose," i.e., something for "free" but with strings attached. The Donaghue Foundation attaches definite strings to every dollar it grants for research. We don't think of our grants as gifts or unconditional awards, as prizes or freebies for which nothing is expected in return. We require the signing of a funding letter to acknowledge acceptance of grant conditions, and sometimes we negotiate lengthy agreements imposing detailed requirements on the recipient. We don't label our agreements "contracts" out of deference to customary language that distinguishes grants from contracts at our institutions, but we do have contractual relationships, and we definitely think in terms of a quid pro quo. This is because Donaghue money is only ours to use for public benefit. One might say that Ethel Donaghue made a grant to her Trustees with her own strings attached, and our complying with her wishes means requiring *our* grant recipients to do so as well.

grant



Committee Members

The Foundation greatly appreciates the time and expertise that our advisers bring to their committee work for Donaghue. Please note the following recent changes:

- **CLINICAL & COMMUNITY HEALTH ISSUES COMMITTEE**

Leaving the committee:
Stanislav Kasl, PhD, *Yale School of Medicine*
Cheryl Beck, DNSc, *University of Connecticut School of Nursing*
Matthew Burg, PhD, *Yale School of Medicine/ Columbia Medicine*

Joining the committee:
Howard Tennen, PhD, *University of CT Health Center*
Martha Radford, PhD, *Yale-New Haven Hospital*
Lawrence Scahill, PhD, *Yale School of Medicine*
Godfrey Pearlson, PhD, *Institute of Living/Hartford Hospital*

- **POLICY ADVISORY COMMITTEE**

Leaving the committee:
Alyce Hild, *Loaves and Fishes Ministries*
Ed Johnson, DDS, *St. Francis Hospital and Medical Center*
Mary Bannon, Esq., *Attorney at Law*

Joining the committee:
Cheryl Beck, DNSc, *School of Nursing, University of Connecticut*
Michael Rion, PhD, *Resources for Ethics and Management*
Nancy Angoff, MD, MPH, *School of Medicine, Yale University*

Note: After several years of distinguished and hard work for the Foundation, **Katherine Ill, MD** has stepped down as committee chairperson. She will continue her dedicated work to the Foundation as a Policy Advisory member, and we thank her for all she has done. The Honorable **Alvin Thompson**, U.S. District Court, will follow Dr. Ill as the Policy Advisory Committee Chairman.

GRANT RECIPIENTS

The Donaghue Foundation is pleased to announce its newest Donaghue Investigators and the recipients of Clinical & Community Health Issues grants for funding beginning in 2004:

■ Donaghue Investigator Program

Lisa Dierker, PhD, from the Wesleyan University Department of Psychology, has been researching issues related to psychopathology and later substance use in children who are in publicly funded service programs in Connecticut. The focus of her work is understanding which characteristics of the child, family and system of care predict resilience or vulnerability to substance abuse in later years. The longer term goal of this work is to use these predictive factors in substance abuse prevention services.

Francisco Sylvester, MD, from Connecticut Children's Medical Center, is, at face value, an anomaly: he is a pediatric gastroenterologist who is studying osteoporosis, a bone disease associated with a geriatric population. By focusing on bone development in children with digestive disease, this line of research will help prevent the detrimental impacts of bone loss in later years among children who have a serious and chronic disease.

■ Clinical & Community Health Issues

Paul Thompson, MD
Hartford Hospital
3 Years – $239,679
Skeletal muscle gene expression in patients with statin-induced myalgia.

C. Michael White, MD
Hartford Hospital
2 Years – $100,368
The atrial fibrillation suppression trial (AFIST III).

George Mansoor, MD
University of Connecticut Health Center
3 Years – $239,650
Effects of ascorbic acid on ambulatory blood pressure.

Richard Fortinsky, MD
University of Connecticut Health Center
2 Years – $239,993
Care consultation for families of dementia patients.

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