

# Nurturing Leaders in Geriatrics Research: Creating a Pathway to Needed Medical Discoveries and Treatments

## *Developing the Next Generation of Physician Scientists in Aging Research*

*Even with relatively modest resources, medical schools and research institutions can adopt strategies to help junior faculty pursue careers in this critically important field. The first years of a faculty appointment are crucial for the development of a career as an independent investigator. Junior faculty need financial, collegial, and practical support for aging research.*

- *Faculty members need their time protected from clinical, educational, and administrative responsibilities in order to focus on research. Funding for salary support can come from a variety of internal and external sources.*
- *Strong mentor relationships provide faculty much-needed collegial support, visibility within the institution and in the broader field, and opportunities to exchange ideas with others engaged in similar work.*
- *Medical schools' and research institutions' commitment to aging research should extend to non-financial supports such as recognition for scientists' work through publications, grand rounds, and awards.*
- *Aging research, and resources for it, are often available but not identified. Much research on diseases that affect older adults is conducted by scientists who do not consider themselves aging researchers but whose work can be important to extending the reach of aging research across a school or health center.*

Each week, it seems, biomedical discoveries are heralded as the harbinger of new treatments and technologies, leading to the perception that scientists are on the brink of fundamental breakthroughs in the treatment of cancer, heart disease, Alzheimer's and other diseases. Despite these hopeful indicators, however, there is an acknowledged critical shortage of physician-scientists devoted to aging research and geriatric medicine. And this shortage threatens the pace of scientific discovery and the ability of medicine to utilize new knowledge in support of better health care services for the elderly.

Americans over the age of 65 are the largest users of health care services, yet too few physicians are entering careers in research to help advance knowledge about the physiology of older people and the diseases that can impair functioning. Attracting outstanding junior medical faculty to leadership careers in geriatrics or aging-related research is a critical and necessary step toward expanding this nation's ability to serve its aging population.

## The JAHF Contribution

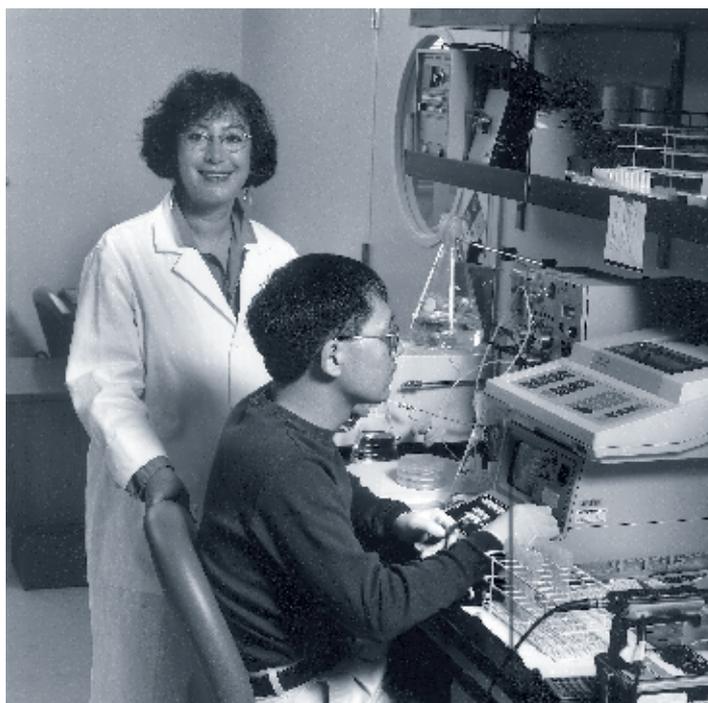


Since 1994, The John A. Hartford Foundation has committed \$28.2 million, in partnership with other private funders and the National Institute on Aging, to recruit and support talented physician-scientists committed to advancing knowledge about the basic mechanisms of aging and prevention and management of illness. The Beeson Career Development Awards program provides up to \$200,000 a year for three to five years, and assigns both senior faculty members at the scholars' institutions and nationally prominent researchers in their field as mentors. Funds are used by scholars to protect at least 75% of their time and for research costs. Almost 125 scholars received grants between 1994 and 2005, creating new knowledge about aging on which improved clinical care can be based.

## Creating a New Generation of Physician-Scientists in Aging Research

The greatest medical challenges in the coming years will likely be in the science and practice of caring for an unprecedented number of older adults. Despite the expected doubling of the over-65 population by 2030, far too few physicians are entering careers in research that could produce new breakthroughs in treating diseases of aging.

*Dr. Lina Obeid in her lab with colleague Cungui Mao, PhD, at the Medical University of South Carolina.*



From 1978 to 1993, the Institute of Medicine issued a series of reports that highlighted a growing need for physicians trained in aging-related issues and called for more support of geriatrics research and training. In 1994, The John A. Hartford

Foundation joined with The Commonwealth Fund and the Alliance for Aging Research to create the Paul B. Beeson Career Development Awards in Aging Research Program (originally known as the Beeson Physician Faculty Scholars in Aging Research Program).

The Beeson program supports talented physician-scientists who are committed to advancing knowledge about the basic mechanisms of aging, and prevention and management of illness. By developing academic leaders in geriatrics, the program aims to inspire future generations of physicians to do the same.

Each year, the program provides 10 or more promising junior medical school faculty grants for three to five years for amounts between \$600-800,000 to conduct research on clinically relevant aspects of aging. It requires senior faculty members at the Scholars' institutions to serve as mentors. The program also provides Scholars with "national" mentors—academic leaders who guide Scholars' research and career development, and provide access to organizations, programs, and colleagues that can be helpful to their growth and development. Each year, a conference convenes all Scholars and mentors as well as other leaders in the field of aging research.

Now supported by a consortium of private and public funders, including the National Institute on Aging, the John A. Hartford Foundation, the Atlantic Philanthropies and the Starr Foundation, the Beeson program is administered by the NIA and the American Federation for Aging Research.

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## Applying the Elements of the Beeson Program

The principles that guide the Beeson program can be used by any medical school or research institution interested in advancing research in aging, even if they do not have Beeson Scholars at their institutions.

### Resources

Faculty members need their time protected from clinical, educational, and administrative responsibilities to conduct research (the Beeson program protects 75 percent of Scholars' time). This translates into the need for salary support, funding for which can come from a variety of internal or external sources.

Researchers need laboratory space, supplies, and equipment. In the case of clinical research, they need access to appropriate study populations and facilities for clinical research. Researchers need the proper training and skills to conduct the research, along with the leadership skills to expand their projects to a higher level.

No matter how skilled a scientist is, no single individual has all the expertise and skills needed to conduct basic laboratory and clinical research. Success in any research venture requires drawing on complementary expertise and clinical skills across disciplines.

### Mentorships and Career Development Support

Mentorships from senior faculty and leaders in aging research are critical to developing physician scientists in the field. Mentor relationships give junior faculty much-needed collegial support, visibility within the institution and in the broader field of medicine, and opportunities to exchange ideas with others engaged in similar work.

Mentors play an instrumental role in protecting faculty members' time and connecting them with the financial and practical resources they need to conduct research and advance their careers. They help scientists develop the technical skills they need. By the dint of their own careers, mentors demonstrate that it is possible to achieve success in aging research, while modeling the persistence, passion, and leadership skills that are critical as well.

### Timing

Junior faculty need financial, collegial, and practical support for research when they begin independently pursuing their career focus and specialty. This typically happens just after the early part of their academic career, when the relatively abundant initial career development opportunities have ended. In many ways, this is often the most uncertain period in a researcher's career trajectory. Without sufficient support, a promising researcher may have to abandon science to take up more practical and remunerative practice opportunities. In addition to grant support, collegial encouragement from other researchers in aging can also demonstrate the viability of a career in the field to those earlier in their training: medical students, interns, and fellows.



*Dr. Christopher Callahan left, meeting with Daniel Clark, PhD, Director of Behavioral Sciences Research at the Indiana University Center for Aging Research.*

### **Institutional Commitment**

Medical schools and research institutions must be committed to aging research, or even the most promising physician scientists will struggle and perhaps fail to sustain their research careers. An institutional commitment enables the allocation of needed financial and physical resources. Non-financial commitment is just as important. Institutions can provide visibility for scientists' work through publications, grand rounds, and awards. They can indirectly demonstrate a commitment to this work by devoting time in the medical student and residency curriculum to geriatrics and aging research. And institutions interested in establishing new physician scientists in aging will achieve greater success if they support clinical, laboratory, and health services research.

### **Collaboration**

By collaborating with other departments across an institution, or among institutions that have complementary resources, medical schools and research organizations can leverage even modest means to advance aging research. Local philanthropies and corporations can play an important financial role in supporting physician scientists with relatively small gifts. The Beeson program and its growing number of scholars (who now number over 100) are also an excellent resource from which to draw mentors, grand rounds presenters, visibility, and success stories.

### **Integration**

Aging research, and resources for it, sometimes hide in plain sight. A good deal of research on diseases that affect older adults—macular degeneration, for instance—is being conducted by scientists who do not consider themselves aging researchers. Likewise, funding resources exist for conditions that are more prevalent older adults, such as heart disease, diabetes and many cancers.

Beeson Scholars have successfully spanned disciplines by identifying with their primary specialty and remaining active in this discipline. A cardiologist, for instance, may continue research into cardiovascular disease in older adults, while attending medical meetings in a variety of specialties, including cardiology, aging, and basic research.



*Dr. Harlan Krumholz in the Echo Lab at Yale-New Haven Hospital.*

## **For More Information**

Leading Science: Tenth Anniversary Report, 2005  
[www.beeson.org](http://www.beeson.org) (Web site maintained by the American Federation for Aging Research)

National Institute on Aging, [www.nia.nih.gov](http://www.nia.nih.gov)

1998 Annual Report, John A. Hartford Foundation, [www.jhartfound.org](http://www.jhartfound.org)

This pamphlet is available at the Web site of the John A. Hartford Foundation at [www.jhartfound.org/IDEAS/mdscientists](http://www.jhartfound.org/IDEAS/mdscientists).

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