Year in Review

Our special thanks to the Program Leaders, Program Administrators and student mentors from each school for making this a great year.

Our third class of fellows, the 2003-2004 fellows, was composed of 68 medical students who were matriculated at the 10 participating medical schools as well as 17 other medical schools. The CRF fellows met as a group twice this past year - attending the first Clinical Investigator Student Trainee (CIST) Forum at NIH in November 2003 and the CRF meeting at the end of their fellowship year in Pacific Grove, California, to present their research findings. Moreover, we were able to provide funds that enabled a few interested fellows to extend their fellowships for either a partial or whole second year.

As in previous years, the CRF fellows’ research projects represented a broad range of clinical research from a health outcomes study on hospice use, to phase 1 clinical trials. Eighty percent of the fellows spent some time interacting with patients as part of their fellowship year, and all fellows took clinical research courses.

We are pleased that an exit survey of the class indicated the fellows unanimously felt it was a good decision to add a year to their medical training to participate in the CRF program.

We are looking forward to a similarly great year with the current class -- the 2004-2005 fellows -- which at 80 is our largest class ever.

• Elaine K. Gallin, Ph.D.,
  Program Director for Medical Research

The Doris Duke Clinical Research Fellowship for Medical Students

The Clinical Research Fellowship program gives medical students the opportunity to spend a year conducting clinical research and obtaining didactic clinical research training at one of 10 outstanding medical schools. Fellows in the 2005-2006 class will receive stipends of $23,000 plus health insurance. Additional funds are available to support travel to scientific meetings and other research-related activities. Students matriculated at any medical school in the U.S. are eligible to apply to any or all of the 10 participating medical schools.

Participating Medical Schools

Columbia University College of Physicians and Surgeons
Harvard Medical School
Mount Sinai School of Medicine
University of California, San Francisco, School of Medicine
University of Iowa Carver College of Medicine
University of North Carolina at Chapel Hill School of Medicine
University of Pennsylvania School of Medicine
University of Texas Southwestern Medical School at Dallas
Washington University School of Medicine in St. Louis
Yale University School of Medicine

How to Apply for 2005-2006 Fellowships

Visit www.ddcf.org/mrp/crf for an application form, guidelines and instructions.

Application Due Date: January 18, 2005
First Program Acceptances: March 18, 2005

Send questions about the application process to ddcfcrf@aibs.org
Before Paul Weinberger entered medicine, he worked as a chef and as a partner in a catering business. Today he is a fourth-year student at the Medical College of Georgia (MCG), interviewing for residencies and planning a career in academic medicine. As he has ventured deeper into science, he has also come to appreciate similarities between the laboratory and the kitchen.

If his career trajectory continues on its current course, Weinberger may well find the recipe for more effective cancer treatments. During 2003-2004, after his third year at MCG, he spent a year at the Yale University School of Medicine as a Doris Duke Clinical Research Fellow, learning methods of clinical investigation and researching cancers of the head and neck.

In applying for the fellowship, Weinberger said he wanted to learn more about molecular indicators for prognosis of cancer and their correlation with survival rates. At Yale, he found a mentor in Amanda Psyrri, M.D., an assistant professor of medicine in the Section of Medical Oncology, who has guided his research into cell cycle regulatory proteins and the contribution of viruses to cancer progression.

“We are both interested in new molecular therapeutics for cancer and why some people with cancer die and others don’t,” Weinberger said of his work with Dr. Psyrri, noting that current methods for determining the stages of a cancer—based on the size of the tumor, whether it has reached lymph nodes and whether it has metastasized to distant organs—cannot always predict outcomes. His project examined the association of the presence of oncogene proteins and/or human papilloma virus in tumor samples with patient outcome.

His year at Yale, which started with eight weeks of instruction in biostatistics, research design and bioethics, has been productive. One of his papers has been accepted for publication in the Journal of Clinical Oncology, and he has submitted three others to peer-reviewed journals.

Along with a year-long research experience, Weinberger leaves Yale with new research skills and a new network of friends and colleagues. On a personal note, while in New Haven he and his wife Stacey, a pediatric nurse, had a daughter, Lainey.

As he prepares to return to Georgia, Weinberger said he hopes to bring some elements of the Yale clinical research culture back with him and plans to continue studies in molecular epidemiology. •

Selected Publications by Past Doris Duke Fellows


PROFILE: LOUISE KING

A Pro Bono Lawyer Transitions to a Clinical Investigator

Louise King’s motivation to be an advocate for the underprivileged first propelled her into law, a career that followed in the footsteps of her mother, a public defender in California.

Years later, her enthusiasm to help others led to a career in medicine.

King, a graduate of the University of Colorado at Boulder, received her law degree in 1996 from Tulane University School of Law, where she also co-founded an Amnesty International Chapter and the Tulane Human Rights Law Society. By age 30, King had practiced law in three states, working for the state supreme courts in Louisiana and California and transitioning into corporate and family law in Texas. In 2001, the Dallas Bar Association named her Outstanding Pro Bono Attorney.

Despite her accomplishments as an attorney, King found law to be impersonal. She decided to pursue medicine based on her experiences in the summer of 1992, when she worked as a medical aide for a humanitarian aid project in Quetzaltanango, Guatemala.

In 1999, while still practicing law, King took a job as a research assistant to Dr. Thomas Andrews, who was an assistant professor of internal medicine at the University of Texas Southwestern Medical Center at Dallas. The following year, she helped coordinate the launch of the landmark Dallas Heart Project at the Donald W. Reynolds Center for Cardiovascular Research. In July 2001, King enrolled at Southwestern Medical School, where she continued work on the Dallas Heart Project as a research intern for another year.

This past year the Doris Duke Clinical Research Fellowship gave King the opportunity to collaborate on three research projects exploring ethnicity and socioeconomic status and how these factors affect disease. Her studies, “Insurance Status and Heart Transplantation,” “Prevalence of Heart Failure in the Dallas Community - Results from the Dallas Heart Study,” and “V122I Transthyretin and Amyloid – Prevalence in a Random Cohort,” were completed under the guidance of Dr. Mark H. Drazner, UT Southwestern associate professor of internal medicine and recipient of the 2000 DDCF Clinical Scientist Development Award (CSDA).

King said, “In one year, I went from someone who was interested in research to someone who can lead my own project and conduct my own statistical analyses. That’s amazing.”

King began her third year of medical school in July 2004. Though she is keeping her options open, she hopes for a residency in internal medicine and subsequent work as a physician serving a low-income area and conducting clinical research.

PROFILE: STEPHANIE HOLLER HOWARD

Functional Neuroimaging of the Human Brain Helps Unravel How Dyslexics Read

When she started college at Duke University, Stephanie Holler Howard did not foresee herself becoming a physician, much less a radiologist. Little did she know that less than a decade later, she would have completed medical school and would be performing clinical research in the radiology field.

She was introduced to radiology at Duke by a career advisor, Dr. Charles Putman, who is also a radiologist. He invited her to accompany him on a typical day in the life of a radiologist.

After her experience with Dr. Putman, she participated in a physician-shadowing program at Duke, where she followed an interventional radiologist who let her scrub in on surgical procedures. Her experience confirmed her interest in medicine, which led to her matriculation at Yale University School of Medicine.

At Yale, which has a first-year thesis requirement for medical students, Howard designed a thesis project with her mentor Dr. Lee Katz to study the effects of oral contraceptives on bone density of Yale female varsity athletes. She received a prize for this work at the recent Eastern-Atlantic Student Research Forum.

During her last year of medical school Howard decided she wanted another research opportunity before graduating, and applied to the Doris Duke Clinical Research Fellowship Program at Columbia University College of Physicians & Surgeons. At Columbia, she worked with Dr. Joy Hirsch, professor of radiology and psychology and Director of the Functional Magnetic Resonance Imaging Research Center. Their project investigated the role of short-term memory in reading of adults with dyslexia. Other studies have shown a significant difference in brain activity between dyslexic and non-impaired persons when short-term memory in reading was examined.

Howard measured the brain activity of 33 participants while they read and performed short-term memory tasks. The brain activity was measured by using a functional magnetic resonance imaging (fMRI) machine.

“My goal is to see if short-term memory is part of the problem preventing people with dyslexia from reading more easily,” Howard says.

She plans to continue in the field of radiology with a focus on pediatrics. This summer Howard started an internship at Memorial Sloan-Kettering Cancer Center in New York, and plans to begin her residency in radiology at Brigham and Women’s Hospital in Boston next year.
David Kessler Inspires Medical Students to Make a Difference

Many of you will go on to become physicians and clinical researchers, but only a handful of individuals will go on to do something big, something that is challenging, something that makes a large-scale difference.

Those were the paraphrased words of David A. Kessler, M.D., that motivated aspiring students at the keynote address of the Doris Duke Clinical Research Fellows Meeting in Asilomar, California, this past June. Dr. Kessler, former commissioner of the Food and Drug Administration (FDA) and the current Dean of the School of Medicine and the Vice Chancellor for Medical Affairs at the University of California, San Francisco, is among those who have made a difference.

While he was commissioner of the FDA, Kessler decided to pursue federal regulation of the tobacco industry. Dr. Kessler’s colleagues warned him that targeting the tobacco industry could be political suicide, but because of the dire health consequences of tobacco use, he was willing to take the risk.

At the Asilomar conference, Dr. Kessler took the audience on a journey back in time. He asked students to play the roles of influential characters he encountered during his war against the tobacco industry, which included lawyers, FBI agents, polygraphists, informants, and CEOs of tobacco companies. The fellows were asked to put themselves in Dr. Kessler’s place as he grappled with the question, “Can the FDA regulate the tobacco industry?” That was his goal, but to accomplish it, Dr. Kessler coaxed the fellows into realizing that a more basic question needed to be addressed first: “Is the nicotine in tobacco a drug?”

While students vicariously relived Dr. Kessler’s tenure as FDA commissioner, they learned about the complex and inaccessible evidence that he had to uncover to get to the truth—nicotine is not only a drug; it is addictive. This involved meticulous investigation into the historical patents of cigarette companies, the evolution of cigarette content and packaging, and the populations targeted by the tobacco industry. There were also years of congressional hearings as well as numerous attempts to derail the FDA’s work.

While the FDA still does not regulate tobacco today, Dr. Kessler was able to change public opinion about tobacco by disclosing evidence that nicotine is a highly addictive and harmful drug. Furthermore, he exposed the intention of tobacco companies to make tobacco more addictive.

His journey wasn’t easy, but he was up for the challenge and encouraged the Doris Duke Clinical Research Fellows to define their own callings.

“Take on something hard, ask a question, and determine if it is worth pursuing. People may say it’s wrong and impossible, but you have to try it.”

When asked if he would have done anything differently looking back, Dr. Kessler responded, “I wouldn’t change anything and I would do it again.” •

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Latasha Jackson, M.S., Program Assistant

For information on the Doris Duke Charitable Foundation, visit www.ddcf.org.