DDCF Holds Second Annual CRF Program Meeting

The second annual meeting of the Doris Duke Clinical Research Fellowship program was held on June 24-26, 2003, at Cold Spring Harbor Laboratory, New York. The meeting was an opportunity for the 2002-2003 fellows, CRF program leaders and administrators, and guest speakers to present and share their research.

Fellows gave either oral or poster presentations. Highlights of the meeting included an opening keynote address by Kenneth L. Davis, M.D., Dean of the Mount Sinai School of Medicine, as well as a forum on how to plan for a successful career in clinical research, which was moderated by Allyn L. Mark, M.D., Senior Associate Dean of the University of Iowa Carver College of Medicine and the 2002-2003 CRF National Program Leader. Informal activities included a BBQ and a performance by music students from The Juilliard School, a grantee of the Doris Duke Charitable Foundation’s Arts Program. The next annual meeting for 2003-2004 fellows will be held on June 9-11, 2004, at Asilomar Conference Grounds near Monterey, California.

Above: Four 2002 Doris Duke Clinical Research Fellows at the June 2003 CRF Program Meeting. From left to right: Jamal C. Harris, enrolled and a fellow at Harvard Medical School; Ila Dayananda, enrolled at Northwestern University and a fellow at UCSF; Julia Dombrowski, enrolled at Duke University and a fellow at UNC-Chapel Hill; and Jonathan Z. Li, enrolled and a fellow at UCSF.

Pictured at Left: Vani Sabesan (left), enrolled at Indiana University and a fellow at the University of Iowa, presents her poster to Jennifer Hirshfeld (center), enrolled at the University of Minnesota and a fellow at Mount Sinai School of Medicine, and Deborah Persaud, M.D. (right), an invited speaker who is a 1999 Doris Duke Clinical Scientist Development Awardee.
Sharifa Monteith, a fourth-year student at Mount Sinai School of Medicine, spent the 2002-2003 school year as a Doris Duke fellow at Mount Sinai, researching the accuracy of physicians’ perceptions of their patients’ health literacy and how it may impact patient treatment and outcomes.

Monteith, who was one of several fellows working on health outcomes research, felt it was important to take part in research that could benefit underserved communities. “I wanted to give back to the community,” said Monteith, who herself benefited from a program for gifted students as a low-income student in the New York City public school system. This program enabled her to attend Exeter Academy, and helped lead her to Amherst College and then to medical school.

Health Literacy Affects Health Outcomes

Considerable interest has been generated by the recent findings that poor patient literacy translates into poor health outcomes. What has been understudied, however, is how physician attitudes and perceptions play into these poor health outcomes. Monteith and her mentor Carol Horowitz, M.D., began to address this issue by determining how adept physicians are at identifying which of their patients have low literacy skills.

They assessed the health literacy of a group of patients, and then asked the patients’ physicians to rate health literacy of the patients. Over 85% of the physicians who were contacted responded to the survey, thanks in no small part to Monteith’s persistence. “I stalked them,” she jokes.

Survey Findings

Forty-six percent of the 185 patients tested had low health literacy. Of the 79 surveyed physicians, a startling 81% overestimated the literacy of their patients.

When these results were broken down by race, the trends in the data, although not statistically significant, produced even more curious results: Clinicians were more likely to overestimate the literacy of black and Latino patients with low health literacy vs. white and ‘other’ patients. The patients in the study were 40% black, 28% white or ‘other,’ and 32% Hispanic. Seventy-seven percent (77%) of the surveyed clinicians were white.

Observing Physician Behavior and Listening to Patients

In addition to her work with clinicians analyzing their perception of their patients’ health literacy, Monteith analyzed data from patient focus groups. The focus group data have helped generate new research questions that will be asked in future studies to examine why gaps between physicians’ perception of their patients’ health literacy and actual health literacy exist — and ultimately to determine if these misperceptions impact the health outcomes of these patients.

Monteith is pleased with the work that her investigative team has accomplished. “I think knowing the problem is half the battle,” she says. The fellowship also allowed Monteith to meet people who shared her career interests. The fellowship has given her the confidence to continue giving back to the community. “I didn’t know anything about research when I started [the program], and clinical research is now much more attractive to me,” Monteith says.

Selected Publications by Past Doris Duke Fellows

Adithya Cattamanchi, M.D. (2001-2002 UCSF CRF)


Raymond C. Givens, M.D. (2001-2002 UNC-Chapel Hill CRF)

Robert S. Hong, M.D. (2001-2002 University of Iowa CRF)

Thomas L. Sims, M.D. (2001-2002 UTSW CRF)

Sasha Wahab, M.D. (2002-2003 Washington University in St. Louis CRF)
A s an undergraduate at Harvard University, Elaine Yu, now a fourth-year medical student at the University of California, San Francisco, School of Medicine (UCSF), had worked on a basic science research project in immunology. In medical school, however, she wanted to explore “something more relevant.” She was inspired, in part, by her mother, a pediatric oncologist. “I was interested in oncology and in women’s health, and I hooked up with a great mentor. And that is where [my interest in clinical research] came from.”

The CRF program offered Yu the chance to see first-hand the challenges and rewards of conducting clinical research. During her 2002-2003 fellowship, she worked on two studies: one, a well-established clinical trial, and the other, a small project that she took on at its inception. Both studies were conducted at UCSF with her mentor, Laura Esserman, M.D., M.B.A., Associate Professor of Surgery and Radiology, and Director, Carol Franc Buck Breast Care Center, at UCSF.

Using MRI to Predict Patient Response to Chemotherapy

As part of the first study involving a well-established clinical trial, Yu investigated the value of magnetic resonance imaging (MRI) in predicting patient outcome and response to chemotherapy. Moreover, MRI was superior to many of the standard prognostic indicators, such as initial size of tumor and tumor grade. After the data began to come in, a multi-center trial opened at six different sites in 2002. Yu is now working on a publication on the MRI study.

According to Yu, the work was “much more interactive” than she expected, involving extensive collaboration between basic science and clinicians. “I really liked that translational aspect of it. You get to collaborate with a lot of wonderful people,” which included oncologists, surgeons, radiologists, pathologists, and laboratory scientists.

The lab scientists collaborated on the project by evaluating the tumors at the level of DNA, RNA, and protein. Initial results, says Yu, indicate that tumors with different MRI phenotypes are biologically distinct at the molecular level. For example, the tumors that appeared more prone to metastasis, as determined by MRI, expressed genes involved in cell migration and adhesion.

Helping to Prevent Post-Operative Pain in Women Following Breast Reconstruction

Yu feels that she has now found a home in clinical research. This decision was made despite some of the hurdles she encountered during her fellowship, particularly while working on her second clinical research project, a small study on preventing post-operative pain in women after breast reconstruction.

The opiod, fentanyl, is often prescribed for post-operative pain, but usually as a pill or intravenously. A fentanyl patch, which releases the drug continuously into the bloodstream, has been approved for chronic pain. Yu’s aim was to see if it would work for post-operative pain after 72 hours and through the second week after the operation. In September 2002, she began wrangling with paperwork and waiting for regulatory approval. Yu also tussled with a less-than-helpful manufacturer while trying to obtain proper placebo patches. It took six months before she put her first patch on a patient.

“I have a much more realistic view of what [clinical research] entails,” she says.

Yu now takes such difficulties as part of the process, and will continue both the MRI and fentanyl study in November and December 2003, during a break in her fourth year of coursework at UCSF.

The Doris Duke fellowship, Yu says, gave her a chance to determine if she wants to do clinical research. “I didn’t have any experience with clinical research before. A lot of medical students come in with a background in basic research, but for those of us who want to do clinical research, this is really the best way,” says Yu. “The program is really filling a gap.”

PROFILE: ELAINE YU

Experiencing the Challenges and Rewards of Clinical Research First-Hand
About the Doris Duke Clinical Research Fellowship for Medical Students

The Doris Duke CRF 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 receive stipends of $20,000 plus health insurance. Students matriculated at any medical school in the U.S. are eligible to apply to any or all of the following schools:

- Columbia University, College of Physicians & Surgeons
  Program Leader: Donald W. Landry, M.D., Ph.D.
- Harvard Medical School
  Program Leader: Dennis A. Ausiello, Jr., M.D.
- Mount Sinai School of Medicine
  Program Leader: Karen Zier, Ph.D.
- University of California, San Francisco, School of Medicine
  Program Leader: Joel M. Palefsky, M.D.
- University of Iowa Carver College of Medicine
  Program Leader: Peg Nopoulos, M.D.
- University of North Carolina at Chapel Hill School of Medicine
  Program Leader: Paul B. Watkins, M.D.
- University of Pennsylvania School of Medicine
  Program Leader: Anil K. Rustgi, M.D.
- University of Texas Southwestern Medical Center at Dallas
  Program Leader: Michael J. McPhaul, M.D.
- Washington University School of Medicine in St. Louis
  Program Leader: Michael R. DeBaun, M.D., M.P.H.
- Yale University School of Medicine
  Program Leader: John N. Forrest, Jr., M.D.

The foundation thanks the outstanding CRF Program Leaders and Administrators at each school for their dedication to the program.

The deadline for 2004-2005 fellowship applications is January 15, 2004. After January 15, potential applicants should check with individual schools to determine whether they are still accepting applications. For more information, visit http://ddcf.aibs.org/crf2000/.

DDCF Works with NIH to Co-Sponsor First National Clinical Investigator Forum for Medical Students

The first Clinical Investigator Student Trainee Forum will be held on October 12-14, 2003, at the NIH in Bethesda, Maryland. The two-day forum will convene approximately 200 medical and dental students participating in clinical and translational research fellowships across the country.

Represented fellowship programs will include the NIH Clinical Research Training Program, the Doris Duke Clinical Research Fellowship program, the Howard Hughes Medical Institute Scholars and Fellows Program, the National Center for Research Resources GCRCs, and the Sarnoff Cardiovascular Science Fellows Program.

For more information, visit: http://ddcf.aibs.org/crf2000/meetings.asp.