



UT SOUTHWESTERN'S

# Rising Stars

**Dr. Kristen Lynch remembers exactly what she said** the day her husband told her he'd been offered a job in Dallas.

"Over my dead body!"

Not that she was crazy about California, where the New England native and her scientist husband were living at the time. He was working at a biotech company, and she at the University of California, San Francisco, completing a postdoctoral fellowship. The clouds, the fog and the high cost of living seemed to stretch endlessly before them.

Fast forward to today.

Lynch, who vowed "never to set foot in Texas," is one of five young medical investigators — among the brightest and best in the world — recruited to The University of Texas Southwestern Medical Center at Dallas last year under its Endowed Scholars Program in Medical Science. Now an assistant professor of biochemistry, she is on a fast-track toward success, practicing leading-edge research alongside some of the most revered scientists in the world as the E.E. and Greer Garson Fogelson Scholar in Medical Research.

For Lynch, the Endowed Scholars Program was a primary factor in changing her mind about Texas in general and Dallas in particular.

Unique and highly competitive, the program is designed to launch the next generation's scientific leaders on their biomedical careers by providing seed money and start-up support for groundbreaking research projects. Five candidates with extraordinary credentials and potential are handpicked each year from top universities, institutions and laboratories and appointed as tenure-track assistant professors in various UT Southwestern departments.

By Donna Steph Hansard

Established in 1998,

the Endowed Scholars Program in Medical Science was created by a \$52 million fund-raising campaign, which included major gifts from a dozen individuals and foundations that met an anonymous donor's \$25 million challenge.

Income from the endowments provide exceptionally generous recruitment packages to attract some of the best young researchers in the world.

Thanks to the generosity of these forward-thinking supporters, UT Southwestern has brought to Dallas 25 of today's most brilliant young medical minds — hailing from as far away as Russia, Japan, China, Germany and Turkey — during the past five years.

Collectively, the Endowed Scholars in Medical Science represent UT Southwestern's "rising stars," destined to discover

new ways to benefit science and mankind and assure UT Southwestern's continued international prominence.

"There is no more important goal than to continue to attract the finest young minds in the world to UT Southwestern," said Dr. Alfred Gilman, a Nobel laureate who is chairman of pharmacology. "These young people, who have just finished their training, are the source of incredible ideas and great creativity. They're full of fire and imagination and will be the great researchers and leaders of the future."

Once again living in a locale with trees and sun — even though it's not Boston — Lynch now is a staunch advocate of UT Southwestern and the nurturing environment it provides.

"One thing that says a lot about UT Southwestern is that I'm a New Englander, heart and soul, and I'd never planned to set foot in Texas," she said. "And I hadn't, until I interviewed here. I immediately fell in love with it — both UT Southwestern and my department. It went very quickly from me saying, 'No way I'm going to Dallas' to 'Absolutely, let's go!'"

"I have to say now, after being here a year, that I still feel that same way. The energy and enthusiasm that were so appealing to me are real. They weren't just a show. Also, I've never had as much fun at a job as I have here."

Like Lynch, many of the Scholars had not foreseen a career track involving Texas. But the unique characteristics of UT Southwestern's program and mentoring by experienced researchers were too

inviting to pass up. Most turned down lucrative offers from other prestigious universities and institutions to come to UT Southwestern.

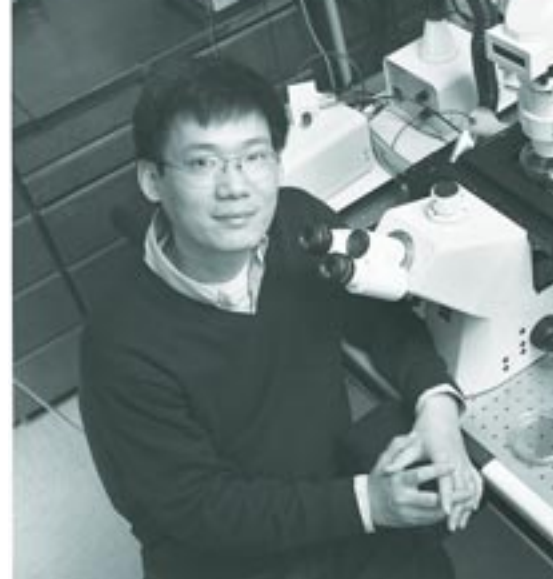
Dr. Kim Orth — one of the few Texas-trained scientists in the program, having earned an undergraduate degree from Texas A&M University and a Ph.D. from UT Southwestern — was wooed by four institutions, including Harvard Medical School, upon completion of her postdoctoral work at the University of Michigan. She and her husband, also a UT Southwestern alum, had not intended to return to their home state.

"I never envisioned it being a possibility that we would come back here," said Orth, assistant professor of molecular biology and a W.W. Caruth Jr. Scholar in Biomedical Research.

A visit to Dallas, during which they both lectured at UT Southwestern, however, started the momentum. The Endowed Scholars Program, an equally challenging position at UT Southwestern for her husband, Dr. Ron Taussig, as associate professor of pharmacology, and a way of life that met her children's needs won them over.

"One of the reasons I made the decision is because I really love the scientific environment at UT Southwestern," Orth said. "You have a great set of scientists who are ambitious and competitive, but who also work together to produce an extremely supportive environment."

"They make you feel a part of a community where people offer suggestions, collaborate, interact and are really happy," she said. "There are great scientists in Boston, too, but the offer from UT Southwestern provided an opportunity where neither excellence in science nor lifestyle for our family would be compromised. Practicing science is a stressful thing, but if you can do it in an environment that is positive and supportive, it makes a huge difference."



A Michael L. Rosenberg Scholar in Medical Research, Dr. Hongtao Yu, was recruited in 1998 as an assistant professor of pharmacology after earning an undergraduate degree at China's Peking University and a doctorate in chemistry at Harvard, where he worked for several years in a cell biology lab.

"Part of the reason I came here is because this school is known for its strength in medical research — much of that related to the work done by

senior scientists such as Dr. Gilman and Dr. (Joseph) Goldstein (chairman of molecular genetics and also a Nobel laureate)," he said. "They're known not only for their accomplishments, but also for their vision in bringing in the correct crowd of young scientists and supporting them from the very beginning."

"That is not always the case in other schools. Typically, young people are hired and not given much support. This school has a different philosophy."

More than 1,000 potential candidates annually apply for the Endowed Scholars Program in Medical Science. UT Southwestern recruits these individuals through advertisements in medical journals, its World Wide Web site, word-of-mouth and personal letters sent from various department leaders to colleagues and medical experts around the country. The process usually begins about a year out, with the heaviest recruiting in late summer and early fall.

Individual medical departments may propose their own candidates, each usually inviting five to six applicants for visits in October and November, following a rigorous pre-screening process. From these candidates, each department selects one or two of its strongest applicants to present to the Endowed Scholars executive committee, composed of six members, four of whom are Nobel Prize recipients. These include Drs. Michael Brown, director of the Erik Jonsson Center for Research in Molecular Genetics and Human Disease; Johann Deisenhofer, professor of biochemistry; Gilman; Goldstein; Helen Hobbs, director of the Eugene McDermott Center for Human Growth and Development and the Donald W. Reynolds Cardiovascular Clinical Research Center; and Thomas Südhof, director of the Center for Basic Neuroscience.

Program finalists are required to write a brief synopsis of their research accomplishments and future goals, bring three letters of recommendation, and show at least two to three published articles.

"You tell people that we have this fabulous recruiting package and ask them to send us their best," said Gilman, who holds the Raymond Willie and Ellen Willie Distinguished Chair in Molecular Neuropharmacology, in honor of Harold B. Crasileck, Ph.D. "You gather a lot of applications, and then individual search committees screen through those and pick out about half a dozen, based on qualifications, record, accomplishments and statement of what they want to do when they 'grow up.'"

"By the time the Endowed Scholars executive committee makes final selections, there are one dozen to two dozen people left, all of whom will receive offers from numerous places. They are superstars with great accomplishments and even greater ideas for the future. And, if they can convince us that they can do what they say they can, then they're asked to be a part of the program."

A program that gains more of a reputation each year.

Yu said he received phone calls from colleagues all over the country after they read in *The Dallas Morning News* that he was hired as a Scholar. "My friends said it was like UT Southwestern was signing its first-round draft picks. They complained that they never got that kind of publicity."

Said Lynch: "The program definitely has a reputation throughout the United States. Several of my peers, when they heard I was going to UT Southwestern, commented on the fact that I would be a part of that 'fabled, big-money start-up package.' The Endowed Scholars Program has done a good job of getting the UT Southwestern name out there."

That's because the Endowed Scholars Program gives young investigators the chance to take risks and the money to do so — along with nods of approval and knowledgeable mentoring from department chairs and other established scientists.

"I don't know of any other program that is quite as focused as this, specifically when it comes to recruiting junior faculty," Gilman said. "This is a commitment, with very substantial funds, that allows them to blossom in a secure environment, mentored by some of the greatest senior scientists in the world."

In addition to full salary support, each Scholar receives \$600,000 to support his or her research projects for four years, covering initial expenses related to start-up costs. Scholars also are provided competitive salaries and sophisticated labs stocked with state-of-the-art equipment.

Typically, in the medical industry, researchers must demonstrate proven successes before they are given capital to further expand their work. That is particularly true in procuring federal grants.

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—Dr. Kristen Lynch

At UT Southwestern, grand ideas are rewarded with upfront dollars.

"When I started here, I changed the kind of research I was doing as a postdoc," said Dr. Kevin Gardner, a W.W. Caruth Jr. Scholar in Medical Research and assistant professor of biochemistry and pharmacology. "That's not usually practical when it comes to obtaining funding. When you try to get funding, especially from the National Institutes of Health, they want to see preliminary data and a lot of feasibility studies before they give you research money."

"Having access to funds — like those in the Endowed Scholars Program — that are unrestricted and available in significant amounts as I was just getting started was exactly what I needed to 'prime the pump' for the research in which my lab now is happily engaged."

"It gives you a lot of freedom to concentrate on research in your early years. And, that's really at the heart of why all of us are here. We love doing research, and we're good at doing research," said Gardner, who did his undergraduate work at the University of California, Davis before earning a Ph.D. at Yale. Gardner's postdoctoral work was completed at the University of Toronto.

Obtaining funding is critical for new researchers, Gilman said. "The money is incredibly important. People have to have money to get going. If there's adequate money to get your lab set up and rolling, you can be more innovative. You can take risks," he said. "The NIH grant-writing process almost discriminates against risk takers. They want preliminary data before they put money into a project."

"But how do you get preliminary data without money? That's what this program allows you to do — to take chances. People don't want to do mundane things; they want to press the limits of their imagination. And they need money to do that."

Dr. Stephen Hammes, also a W.W. Caruth Jr. Scholar in Medical Research and assistant professor of internal medicine, earned both M.D. and Ph.D. degrees from Duke University and finished an internship, residency and fellowship at UC, San Francisco, where he also did three years of postdoctoral research. When he was hired at UT Southwestern, his research focus took a 180-degree turn.

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"I wanted to do something completely different than what I was doing as a postdoc," he said. "It was an unusual thing to try and do, and when I was looking for jobs, most places didn't want me coming and doing that. But when I visited UT Southwestern, people were excited about my idea because they thought it was unusual and different and would be worthwhile."

"The nice thing about the Endowed Scholars Program is that it gives you some security for four years, so you can pursue something that is interesting and even off-the-wall. No other places are willing to have such an open mind. That's what really attracted me — even more than the amount of money offered."

Most Scholars agree it's the advice and over-the-shoulder presence of UT Southwestern's senior faculty that are the greatest key to success.

"In addition to the money, there's a whole lot of moral support given here," Lynch said. "There are other places and universities where new researchers are like little fish swimming with sharks. Here, it's different. The young people feel that the senior faculty is really looking out for them and trying to help them."

Said Dr. Scott Cameron, the Children's Cancer Fund Scholar in Medical Research and assistant professor of molecular biology and pediatrics: "The support provided here is first-class. By support, I don't mean only physical resources, although that is certainly part of it. What is more important is the support we get from a group of world-class scientists who are easily available and ready to assist us."

Having access to a network of young researchers on similar tracks also helps, said Cameron, who did graduate work at Cold Spring Harbor Laboratory in New York before postdoctoral research at Harvard and Massachusetts Institute of Technology. "In coming here, I was introduced to a group of other new scientists who I knew were high-quality. When we get together and they tell me things they are worried about, I find they are the same things I worry about — so I know I'm in good company."

Starting a lab from scratch can be mind-boggling, said Gardner, who was in the first group of Endowed Scholars. "When you're a postdoc, you usually work in a mature lab, which is a vibrant and exciting place full of people and things coming and going constantly. On your first day as an independent investigator, you're put in an office with a computer and no one around to give you orders, and you're faced with a totally new set of challenges you've never had before — such as managing your time over a much wider area, including research, teaching and clinical work."



"In addition to being able to get advice from some of the greatest senior scientists in the world, having the ability to touch base with other young faculty who are going through the same things at the same time makes a difference."

Besides informal peer review, internal as well as external advisory committees annually evaluate Scholars and the program's progress. Scholars also present seminars describing

their works-in-progress for other faculty members.

"There's an external committee of simply fantastic researchers who come in once a year, and you present your work to them," Gardner said. "It's fun being able, as a young faculty member making your first steps, to get that kind of feedback. At times, I've been in a room with five Nobel Prize winners who took the time to share their thoughts regarding the strong or weak points of my research."

Dr. Stanley Prusiner, director of the Institute for Neurodegenerative Diseases and professor of neurology and biochemistry at UC, San Francisco, is a member of the Endowed Scholars Program's external advisory committee. In 1997 he won the Nobel Prize in physiology or medicine.

"I think the Endowed Scholars Program helps bring to UT Southwestern some of the most talented and imaginative young assistant professors in the entire world," Prusiner said.

Other members of the external advisory committee include: Dr. Bruce Alberts, president of the National Academy of Sciences; Dr. Richard Axel, Higgins Professor of Biochemistry and Molecular Physics and a Howard Hughes Medical Institute investigator at Columbia University; and Dr. Titia de Lange, Leon Hess Professor, Laboratory of Cell Biology and Genetics, Rockefeller University.

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Not only was the Endowed Scholars Program created to bring the best minds to Dallas and UT Southwestern, it also was born out of a desire to continue UT Southwestern’s far-reaching inroads into changing the face of biomedicine and the future.

“Because of the remarkable foresight of the anonymous challenge donors who helped conceive the Endowed Scholars Program and craft its structure, and because of the enthusiasm of other supporters who embraced the idea of endowing the future through investing in the best young minds anywhere, Dallas will remain at the forefront of the medical world,” said Dr. Kern Wildenthal, president of UT Southwestern.

A visit to the labs and discussions with any one of the 25 Scholars already appointed offer insights into greater things to come. First-year Scholar Yu is passionate about his research efforts delving into the division of cells from a structural, as well as biochemical, point of view.

“We are hoping that by studying how cells normally duplicate and split, we can eventually understand how cancer cells divide and discover a way to inhibit the cell division process of cancer,” he said. “That is a very long-term goal of our research. If we can apply the knowledge we learn to human health, that becomes the ultimate pleasure of this business.”

Finding new ways to treat, prevent and cure diseases ultimately is what the Endowed Scholars Program is all about.

“In this century and those to come, there will be a constant influx of brilliant minds into our midst,” Wildenthal said. “Of the Endowed Scholars who pass through the program, a few may not realize their full potential. But hundreds will have made major contributions to medical research; some will have become the Nobel laureates of the 21st century; and Dallas will have been the site of remarkable discoveries that will have transformed medicine forever.” ❖

## Endowed Scholars

and the institutions from which they came



### Wade Bresnahan, Ph.D.

W.W. Caruth Jr. Scholar in Biomedical Research  
*Princeton University*

### Richard Bruick, Ph.D.

Michael L. Rosenberg Scholar in Medical Research  
*UT Southwestern*

### Scott Cameron, M.D., Ph.D.

Children’s Cancer Fund Scholar in Medical Research  
*Dana Farber Cancer Institute at Harvard University*

### Yuh Min Chook, Ph.D.

Eugene McDermott Scholar in Medical Research  
*Rockefeller University*

### Simon Daefler, M.D., Ph.D.

William P. Clements Jr. Scholar in Medical Research  
*Rockefeller University*

### Michael Gale Jr., Ph.D.

Nancy C. and Jeffrey A. Marcus Scholar in Medical Research, in Honor of Dr. Bill S. Vowell  
*University of Washington*

### Kevin Gardner, Ph.D.

W.W. Caruth Jr. Scholar in Biomedical Research  
*University of Toronto*

### Nick Grishin, Ph.D.

Virginia Murchison Linthicum Scholar in Medical Research  
*UT Southwestern*

### Stephen Hammes, M.D. Ph.D.

W.W. Caruth Jr. Scholar in Biomedical Research  
*University of California, San Francisco*

### Kimberly Huber, Ph.D.

Southwestern Medical Foundation Scholar in Biomedical Research  
*Brown University*

### Jin Jiang, Ph.D.

Eugene McDermott Scholar in Medical Research  
*Howard Hughes Medical Institute at Columbia University*

### Ege Taner Kavalali, Ph.D.

Cain Foundation Scholar in Medical Research  
*Rutgers University*

### Makoto Kuro-o, M.D., Ph.D.

Southwestern Medical Foundation Scholar in Biomedical Research  
*National Institute of Neuroscience, Japan*

### Wen-hong Li, Ph.D.

Southwestern Medical Foundation Scholar in Biomedical Research  
*California Institute of Technology*

### Yi Liu, Ph.D.

Louise W. Kahn Scholar in Biomedical Research  
*Dartmouth University Medical School*

### Qing “Richard” Lu, Ph.D.

Southwestern Medical Foundation Scholar in Biomedical Research  
*Dana Farber Cancer Institute at Harvard University*

### Kristen Lynch, Ph.D.

E.E. and Greer Garson Fogelson Scholar in Medical Research  
*University of California, San Francisco*

### Kim Orth, Ph.D.

W.W. Caruth Jr. Scholar in Biomedical Research  
*University of Michigan*

### Duoja Pan, Ph.D.

Virginia Murchison Linthicum Scholar in Medical Research  
*University of California, Berkeley*

### Anne Satterthwaite, Ph.D.

Southwestern Medical Foundation Scholar in Biomedical Research  
*University of California, Los Angeles*

### Joachim Seemann, Ph.D.

Virginia Murchison Linthicum Scholar in Medical Research  
*Imperial Cancer Research Fund in London*

### Keith Wharton Jr., M.D., Ph.D.

W.W. Caruth Jr. Scholar in Biomedical Research  
*University of California, Los Angeles*

### Christoph Wülfing, Ph.D.

W.A. Moncrief Jr. Scholar in Medical Research  
*Max-Planck Institute of Biochemistry in Germany*

### Gang Yu, Ph.D.

Thomas O. Hicks Scholar in Medical Research  
*University of Calgary*

### Hongtao Yu, Ph.D.

Michael L. Rosenberg Scholar in Medical Research  
*Harvard University*

