BULLOCK GIFT ENDS DISTINGUISHED CHAIR TO SUPPORT SCIENCE EDUCATION IN TEXAS

By Mindy Baxter

D ALLAS—March 14, 2001—In the last decade, UT Southwestern Medical Center at Dallas Science Teacher Access to Resources at Southwestern (STARS) program has grown from an all-volunteer effort with no funding to a highly sought-after program encompassing more than 450 middle and high schools in the state. Like one of its leading supporters—former Lt. Gov. Bob Bullock, who died in 1999—it has touched the lives of many Texans.

Jan Bullock, his widow, has ensured that he will continue to impact the lives of Texans by providing $1 million to UT Southwestern to establish the Jan and Bob Bullock Distinguished Chair for Science Education. Funds for the endowment were derived from Bullock’s campaign account at the time of his death, along with matching funds from an anonymous donor. The chair will be held by the director of the STARS program and will provide funding to allow the program to grow.

“Bob Bullock believed in the power of education,” said Dr. George Ordway, STARS director and an associate professor of the STARS program, “He also believed in the quality of our programs at UT Southwestern. Jan Bullock shares these beliefs, and we are honored this endowment has been established as a way to help UT Southwestern serve Texas.”

STARS began in 1991 when a group of UT Southwestern faculty members decided they wanted to do something to improve the quality of science education in the state of Texas. The program was initially a volunteer effort, Bullock and other legislators helped the program acquire state funding in 1993.

“Bob regarded UT Southwestern as one of the world’s leading medical centers, and he always felt STARS was a great program,” Mrs. Bullock said. “I know he would be happy that there will now be additional funding to enhance it still more.”

Since its inception, STARS has created a number of successful initiatives that target both science teachers and students in Texas. In one program, advanced placement students from Dallas are brought to UT Southwestern to meet with medical students and graduate students to learn more about advanced degrees. In another program, UT Southwestern leads all-day in-service sessions for science teachers on hot scientific topics like DNA or genetics. “Because of the Bullocks’ well-known commitment to education and the respect in which they are held, this endowment will raise the visibility of the STARS program,” said Dr. George Ordway, STARS director and an associate professor of physiology. “We always want to do more and reach more students and teachers, and this gift allows us to do that.”

The endowed chair will provide a constant source of income for STARS and will enable the program to expand its current scope and to begin new initiatives. UT Southwestern plans to implement a new program that reaches out to science teachers who are underqualified and desire additional training. The school also hopes to establish links with community colleges and colleges that serve predominately minority populations in an effort to help upgrade science education in these institutions.

Bulloch was Texas lieutenant governor from 1991 to 1999. He also served in the Texas House of Representatives from 1956 to 1959, was Texas secretary of state in 1971 and 1972, and was Texas comptroller from 1975 to 1991. A Democrat, Bullock was revered for his ability to reach across party lines. President George W. Bush frequently cites him as a prime example of an individual who has worked productively in a bipartisan spirit to benefit all citizens. “Bob Bullock was one of the great Texas leaders of the 20th century,” Wildenthal said. “UT Southwestern is proud to help carry on his and Jan’s commitment to improve education in Texas.”

Mrs. Jan Bullock presented STARS with a Distinguished "Chair" For Science Education, as Dr. Kern Wildenthal, President of UT Southwestern, thanks Mrs. Bullock’s act of generosity with a chair of her own.
Spring STARS Events

Mini-Symposium: Developmental Biology - January 22, 2001

Thursday Teacher Inservice: Genetics

Friday Deadline to submit requests

Tuesday, March 21 – Saturday, April 28, 2001

CRACKING THE CODE OF LIFE: Program broadcast dates April 12, 2001 (Noon hour) & June 2000 two fertility competitive teams of scientists worked in tandem to achieve the most startling breakthrough in cellular therapy has had achieved one of the greatest prises in history: the decoding of the human genome. http://www.pbs.org/nova/genes

CPG: Cracking the Code of Life: Program broadcast date April 12, 2001 (Noon hour) & June 2000 two fertility competitive teams of scientists worked in tandem to achieve the most startling breakthrough in cellular therapy has had achieved one of the greatest prises in history: the decoding of the human genome. http://www.pbs.org/nova/genes


microarrays http://www.ornl.gov/hgmis/ for their assistance in obtaining information and materials. http://www.peds.swmed.edu/groups/minimed for their assistance in obtaining information and materials. Golder (http://www.utsouthwestern.edu/stars/welcome.html). To learn more about these and other topics covered by the Genome Gallery was the next presenter, Barbara Hastings of Euless

Spring STARS Events

Mini-Symposium: Developmental Biology - January 22, 2001

Thursday Teacher Inservice: Genetics

Friday Deadline to submit requests

Tuesday, March 21 – Saturday, April 28, 2001

CRACKING THE CODE OF LIFE: Program broadcast dates April 12, 2001 (Noon hour) & June 2000 two fertility competitive teams of scientists worked in tandem to achieve the most startling breakthrough in cellular therapy has had achieved one of the greatest prises in history: the decoding of the human genome. http://www.pbs.org/nova/genes


microarrays http://www.ornl.gov/hgmis/ for their assistance in obtaining information and materials. http://www.peds.swmed.edu/groups/minimed for their assistance in obtaining information and materials. Golder (http://www.utsouthwestern.edu/stars/welcome.html). To learn more about these and other topics covered by the Genome Gallery was the next presenter, Barbara Hastings of Euless

Spring STARS Events

Mini-Symposium: Developmental Biology - January 22, 2001

Thursday Teacher Inservice: Genetics

Friday Deadline to submit requests

Tuesday, March 21 – Saturday, April 28, 2001

CRACKING THE CODE OF LIFE: Program broadcast dates April 12, 2001 (Noon hour) & June 2000 two fertility competitive teams of scientists worked in tandem to achieve the most startling breakthrough in cellular therapy has had achieved one of the greatest prises in history: the decoding of the human genome. http://www.pbs.org/nova/genes


microarrays http://www.ornl.gov/hgmis/ for their assistance in obtaining information and materials. http://www.peds.swmed.edu/groups/minimed for their assistance in obtaining information and materials. Golder (http://www.utsouthwestern.edu/stars/welcome.html). To learn more about these and other topics covered by the Genome Gallery was the next presenter, Barbara Hastings of Euless

Spring STARS Events

Mini-Symposium: Developmental Biology - January 22, 2001

Thursday Teacher Inservice: Genetics

Friday Deadline to submit requests

Tuesday, March 21 – Saturday, April 28, 2001

CRACKING THE CODE OF LIFE: Program broadcast dates April 12, 2001 (Noon hour) & June 2000 two fertility competitive teams of scientists worked in tandem to achieve the most startling breakthrough in cellular therapy has had achieved one of the greatest prises in history: the decoding of the human genome. http://www.pbs.org/nova/genes


microarrays http://www.ornl.gov/hgmis/ for their assistance in obtaining information and materials. http://www.peds.swmed.edu/groups/minimed for their assistance in obtaining information and materials. Golder (http://www.utsouthwestern.edu/stars/welcome.html). To learn more about these and other topics covered by the Genome Gallery was the next presenter, Barbara Hastings of Euless

Spring STARS Events

Mini-Symposium: Developmental Biology - January 22, 2001

Thursday Teacher Inservice: Genetics

Friday Deadline to submit requests

Tuesday, March 21 – Saturday, April 28, 2001

CRACKING THE CODE OF LIFE: Program broadcast dates April 12, 2001 (Noon hour) & June 2000 two fertility competitive teams of scientists worked in tandem to achieve the most startling breakthrough in cellular therapy has had achieved one of the greatest prises in history: the decoding of the human genome. http://www.pbs.org/nova/genes


microarrays http://www.ornl.gov/hgmis/ for their assistance in obtaining information and materials. http://www.peds.swmed.edu/groups/minimed for their assistance in obtaining information and materials. Golder (http://www.utsouthwestern.edu/stars/welcome.html). To learn more about these and other topics covered by the Genome Gallery was the next presenter, Barbara Hastings of Euless

Spring Calendar of Events

September 10  Monday Mini-Symposium: Sleep 5:30 - 8:00 p.m. Richardson Lecture Hall, D1.502

September 22  Saturday Teacher InserviceGenetics 9:00 a.m. - 3:00 p.m. Catherine Medline, Richardson Lecture Hall, D1.502

October 13  Saturday Basic Science Symposium: Aging 9:00 a.m. - 3:30 p.m. Richardson Lecture Hall, D1.502

November 12  Mini-Symposium: Stem Cell Research & Micro-Array Analysis 5:30 - 8:00 p.m. Richardson Lecture Hall, D1.502

December 1  Saturday Teacher Inservice: Genetics 9:00 a.m. - 3:00 p.m. Richardson Lecture Hall, D1.502

Other Important Dates To Remember

January 25  Friday Deadline to submit requests

February 26  Saturday Application deadline for the Teaching for the Next Generation Program

June 1  Monday Summer Research Program begins

July 26  Monday Summer Research Program ends

All events are held at the UTSouthwestern South Campus. For directions, send an email to the STARS office or visit the STARS website at: http://www.utsouthwestern.edu/stars/welcome.html.
Instead of taking advantage of their well deserved summer break by resting and relaxing, 13 middle and high school teachers from across the state of Texas embraced the challenge to expand their knowledge and skills in order to broaden the scope of their effectiveness in the classroom. On July 1, 2001, they began their two-month venture into experiencing the life of a researcher at UT Southwestern Medical Center in Dallas. Each of the 13 participants, chosen from the largest applicant pool to date (64), was placed with a volunteer faculty mentor based on their area of interest.

Pamela Bisic of Hillcrest High School, Dallas. Host: Nicola Abate, M.D., Internal Medicine

“Participating in the STARS Program is an awesome opportunity. I have been allowed to work with doctors that are leading their field in patient care while also researching the possible pathology of their patients’ diseases. I have been involved with researchers using human subjects to study insulin resistance. Their technique of gathering data is an intense undertaking of infusing glucose, insulin or lipids into the body while withdrawing blood and measuring glucose levels. Further laboratory analysis gives researchers greater feedback. The idea that these studies will impact the lives of so many people by understanding the development of this condition is overwhelming because it could lead to a possible cure of diseases such as diabetes.”

Anthony Chavez of Frisco High School, Frisco. Host: Skip Garner, Ph.D., McDermott Center Biochemistry & Internal Medicine

“STARS, simply put, is a “learning experience.” I don’t think of it as a summer job, but as a summer of enlightenment. I was honored to work in the Garner lab. His lab is as diverse in research topics as it is in people. He and his team have taught me how a group of intelligent and motivated people can turn an idea into an innovation. He and his team integrate disciplines of Physics, Chemistry, Biology, and Computer Science and apply them to cutting-edge research. I recommend this program to any teacher that wants to take real-world science experience into the classroom.”

Joe Coronado of Memorial Middle School, Laredo. Host: Tony Babb, Ph.D., Internal Medicine

“Well as far as my research goes, I am working with Dr. Tony Babb, an exercise physiologist, and he is doing a study on pulmonary mechanisms on obese people. He has two studies going on, one for obese and the other for weight loss, which includes both obese and lean subjects. With this research, Tony is trying to find out exactly where obesity impedes lung mechanisms. I am processing all the breathing tests on the subjects, and a high school student from TAMIA is measuring the subcutaneous and visceral fat on abdominal MRI’s. Nevertheless, as far as my experience here, I am totally grateful for being here. Since the first day, I’ve learned so much. As far as making me a better teacher, it has. I can also say that I would recommend this program to all teachers that are willing to take their skills to the next level. It is difficult, but it is very rewarding. I just wished there were a program like this in Laredo or even San Antonio.”

Alan Cotton of Carroll High School, Southlake-Carroll. Host: Rolf Joho, Ph.D., Center for Basic Neuroscience

“I have been pleasantly surprised at the level of interaction that I have had with laboratory personnel, their patience, intelligence and encouragement has been a blessing. The lab personnel consider every option and explanation when solving problems; I am amazed at the level of passion and intensity with which they work. Though I was the “low man on the totem pole,” my ideas were welcomed, critiqued, and carried out. My knowledge and understanding of the central nervous system, particularly synaptic communication, has been increased beyond measure with the help of the great resources at UT Southwestern and the many hours of diligent teaching provided by my many mentors. My paradigm for a “lab scientist” has evolved to include a much greater emphasis on creativity in problem solving than previously thought. The genuine curiosity and perseverance with which these people work is a reflection of what I as a teacher am trying to instill in my students on a daily basis.”

Roxie Gaona of Laredo Health Science Magnet High School, Laredo. Host: Marilyn Mayo, M.D., Internal Medicine

“I am so grateful to the STARS program for allowing me to continue working in Dr. Mayo’s lab for a second summer. I have seen some of her research come to fruition. This year, I have become a vital part of her lab by helping her write up some of her paper work for the Institution Review Board. Again, the STARS program has given me the opportunity to make a difference here at Southwestern and I cannot wait to share my experiences when I get back to Laredo. My work this summer with the Institutional Review Board process has given me greater insight as to the ramifications and precautions that need to be taken when establishing DNA repositories. I have learned a great deal about the legalities of using human cells for research and how this country is working hard at safe guarding its citizens’ rights on the molecular biological front. My students in Laredo will be made well aware of the issues that are in the forefront of DNA research by keeping abreast on what President Bush decides will be this country’s stand.”

Kathryn Garcia-Bradfield of Sam Houston High School, Arlington. Host: Spencer Brown, Ph.D., Plastic Surgery

“The Summer Research Program for Teachers has been an experience I will never forget. Every day was like a field trip. I had the opportunity to participate in and observe many different things such as observing plastic surgery, laser surgery and microsurgery. In addition, I worked in a research lab that directly related basic science to patient care. Acquaintances and friends that I have made at Southwestern, doctors and medical students alike, have given me lots of insight into the medical profession that I can share with the kids back home. Learning new laboratory technique was an added bonus to a rich, all-around experience.”

Mike Knessey of North Oaks Middle School, Birdville. Host: Helen Hobbs, M.D., McDermott Center Molecular Genetics

“I was placed in a lab where they had just discovered the gene that is responsible for regulating cholesterol levels in the bloodstream. When I joined the team we began to try to map out the gene as its structure was not known. We were able to identify the boundaries of two exons that are thought to contribute to high levels of cholesterol if a mutation is found there. The second phase of my research involved screening a population of 122 individuals for the mutation. I would highly recommend the STARS program to anyone who is serious about improving as a science teacher and in their knowledge of how science is really done in a cutting edge research setting. Although rigorous and very challenging, the program really will cause a person to grow professionally and personally in an exponential way.”

Jamie McNeill of Azle High School, Azle. Host: Roger Schulz, Ph.D., McDermott Center Human Growth & Development

“I’m learning to do cloning, gene sequencing, G-banding, fluorescent labeling of genes, and I am using a fluorescent microscope. In my research lab we are working on tumor biopsies from a large group of cancer patients representing 3 types of cancer. The research experience is incredible and it is an opportunity of a lifetime. I never realized there were so many brilliant people, doing so many life changing things, so close to home. UT Southwestern is an amazing place and I feel blessed to be associated with it.”

Continued on back page
Elizabeth Moglinicki of Quintanilla Middle School, Dallas. Host: Ellen Vitetta, Ph.D., Cancer Immunobiology Center

“This summer I have had the opportunity to work with a wonderful group of people. They have taught me more about science and what my students need to learn in order to become successful scientists, than I learned in all my years in college. I feel very fortunate to have been able to work in a lab that is testing a drug to treat multiple myeloma, a deadly form of bone marrow cancer. Over the past eight weeks I have cultured cells, run a variety of tests and shared my valuable data and with other researchers. I felt like a scientist instead of a science teacher. I want each of my students to experience the same feelings in my science class that I have had in lab this summer: the excitement, wonder, awe, the celebration, and even the frustration, that lab work can bring. This summer has made me remember why I wanted to become a science teacher!”

Gerry Paine of Southwest High School, San Antonio. Host: Robert Ilaria, M.D., Internal Medicine

“These last 8 weeks have been the most humbling and the most beneficial toward my teaching career. I came into the program feeling that I was well prepared for anything the Principal Investigator would assign me. I quickly realized I had much to learn in a short amount of time. I have learned to appreciate the art of research and have redefined my ability to be organized, prepared, observant and, above all, patient. I can now tell my students with assertion that the scientific method is used each day in research labs and is the primary step in science. My project allowed me to research the effects of a newly FDA approved drug on breast cancer cell growth. I was also one of the few people able to work on DNA Chip technology. This was an unbelievable experience, and I look forward to returning next summer!”

Kristi Phillips of Colleyville Middle School, Grapevine-Colleyville. Host: Sherwood Brown, M.D., Psychiatry

“The STARS program at UT Southwestern Medical Center has given me the chance to observe scientists in a variety of settings working on cutting edge research. I had the incredible opportunity to work in the psychoneuroendocrinology lab in the psychiatry research department. My primary investigator, Dr. Sherwood Brown allowed me to complete a research study looking at the possible link between children with asthma and depression. I was responsible for recruiting subjects, conducting the interviews and compiling the data for the study. As a part of the department, I also helped recruit patients for the other research studies by going to the psychiatric emergency room at Parkland hospital and other clinics on campus. Other current research studies I have learned about as a department member include, chronic corticosteroid use and the effects on mood, memory and brain structure, the treatment of dual diagnosis patients with different drugs and research on the treatment of alcohol abuse and major depressive disorder. Participation the STARS program has given me many valuable tools, insights and experiences that have helped me grow as a science teacher and will have an immediate impact on the students in my science classes.”

Ricky Stover of Lewisville High School North, Lewisville. Host: Jane Johnson, Ph.D., Center for Basic Neuroscience

“The embryology research I have had the opportunity to conduct as a result of the Summer Research Program for Teachers has been invaluable to my development as a biology teacher. I am fortunate enough to have been able to participate for the past two summers and am sincerely thankful for the resources that have been expended on my behalf. I know the time, money, and effort spent is worthwhile. The people I have met at UT Southwestern are certainly among the most impressive I have been surrounded by. Their professionalism and dedication are inspiring. I hope to convey my many positive experiences here to my students each and every day in the classroom.”

Summer Research Program for Students

What do you want to do when you grow up? That’s the ultimate question that every high school student has to answer. In an endeavor to give a little guidance and experience to formulate that answer, STARS offers a Summer Research Program for Students. This year, of the 42 applicants from the Dallas Independent School District, 11 were selected to “test the waters” to see if the every growing field of science and medicine was the answer to that age-old question.

<table>
<thead>
<tr>
<th>Name</th>
<th>School</th>
<th>Research Host</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lucy Angle</td>
<td>Townview Talented &amp; Gifted Magnet</td>
<td>Akshay Vakharia, M.D.</td>
</tr>
<tr>
<td>Sofia Biteta</td>
<td>Thomas Jefferson High School</td>
<td>Yi Liu, Ph.D.</td>
</tr>
<tr>
<td>Veronica Cantu</td>
<td>Skyline High School</td>
<td>Lurdies Queimado, M.D., Ph.D.</td>
</tr>
<tr>
<td>Diana Chong</td>
<td>BT Washington High School</td>
<td>Robert Toto, M.D.</td>
</tr>
<tr>
<td>Erin Haley</td>
<td>Townview Talented &amp; Gifted Magnet</td>
<td>Ravi Sarode, M.D.</td>
</tr>
<tr>
<td>Justin Lowrey</td>
<td>Skyline High School</td>
<td>Stephen Hammes, M.D., Ph.D.</td>
</tr>
<tr>
<td>Rene Padilla</td>
<td>Woodrow Wilson High School</td>
<td>Russell Scheffer, M.D.</td>
</tr>
<tr>
<td>Nauman Poonja</td>
<td>WT White High School</td>
<td>Michael J. Bennett, Ph.D.</td>
</tr>
<tr>
<td>Lessia Runnels</td>
<td>Pinkston High School</td>
<td>Maureen Finneghan, M.D.</td>
</tr>
<tr>
<td>Suzanne Seal</td>
<td>Seagoville High School</td>
<td>Linda Baker, M.D.</td>
</tr>
<tr>
<td>Andrew Tyner</td>
<td>Seagoville High School</td>
<td>Zerrin Yetkin, M.D.</td>
</tr>
</tbody>
</table>

The Summer Research Program for Teachers is open to any teacher in the State of Texas, while the Program for Students is open to high school juniors in the Dallas Independent School District. Applications for the 2002 Summer Research Programs will go out to schools in January 2002.