SOUTHWESTERN NEWS

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UT SOUTHWESTERN ESTABLISHES FAMILY CANCER REGISTRY

DALLAS — November 9, 1993 — The University of Texas Southwestern Medical Center has established an extensive Family Cancer Registry to help identify and monitor families whose members are at increased risk of developing cancer.

The Registry will initially focus on cancers known to exist in a familial form, including breast, ovarian, kidney, colon, prostate, and certain forms of childhood cancers. People or families who are classified as "high risk" because they may have inherited mutant genes predisposing them to these illnesses may be offered genetic counseling or closer monitoring for signs of cancer through the UT Southwestern Family Cancer Registry.

The UT Southwestern Registry is being established with the assistance of the Susan G. Komen Foundation as part of the Komen Alliance against breast cancer and with the cooperation of Drs. Joanne Blum, Stephen Jones, Phil Evans and Ms. Barbara Blumberg at Baylor-Sammons Cancer Center at Dallas. The American Cancer Society, Texas Division, is also supporting the Registry. A portion of a $500,000 grant to UT Southwestern from the Komen Foundation will help underwrite the Registry.

"This is the first of many cooperative efforts among the members of The Komen Alliance," said Nancy Brinker, founding chairman of The Komen Foundation. "This registry is a significant step in providing important information on breast cancer and other cancers as well."

"We have known for many years that certain families have many more individuals with cancer than expected by chance," said Dr. John D. Minna, director of the Harold C. Simmons Comprehensive Cancer Center at UT Southwestern. "Recently, specific cancer genes have been identified that allow us to study such families and possibly predict which members are at a greatly increased risk of developing cancer."

"There are very few cancer registries like this in the United States," said Minna. "The term registry understates what we hope to accomplish with this effort," added Minna, who holds the Lisa K. Simmons Distinguished Chair in Comprehensive Oncology. "The registry will be more than just a data-collection center. We hope that

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this registry will form the basis for future prevention and treatment strategies."

It's been well-established that having a mother or sister with breast cancer doubles a woman's risk of developing breast cancer. Having both a sister and a mother with breast cancer, increases a woman's risk even more.

Over the last several years, however, Dr. Gail Tomlinson, an oncologist and an assistant professor of pediatrics at UT Southwestern, noticed that breast cancer was also occurring among the mothers and other close relatives of some of her pediatric cancer patients at Children's Medical Center of Dallas. She teamed with Dr. Marilyn Leitch, assistant professor of surgery, and Dr. Anne Bowcock, a molecular geneticist and assistant professor of pediatrics at UT Southwestern, and the trio created a survey to gather genetic information on families that had a high incidence of breast cancer. Their efforts formed the basis for establishing a formal family cancer registry at UT Southwestern.

In the previous 18 months they have registered more than 100 families with some type of hereditary cancer, including 47 families with multiple cases of breast cancer.

"We're focusing on the p53 gene and a gene that's been temporarily labeled the Breast Cancer One Gene (BRCA1), which has been linked to early onset of familial breast and ovarian cancer," said Tomlinson. "Abnormalities in the p53 gene are rare, but when these abnormalities do occur, the mutant p53 gene is responsible for dramatic increases in breast cancer and a number of other cancers, including sarcomas (tumors of soft tissues) and childhood tumors."

Bowcock is working with her colleagues at UT Southwestern and collaborating with researchers at the University of California at Berkeley and the National Institutes of Health to isolate the BRCA1 gene. She stressed the importance of this project by pointing out that abnormal copies of the gene are probably carried by one in every 150 to 500 women in the United States.

In addition to predisposing these women to breast cancer, alterations in the BRCA1 gene also are responsible for cases of familial ovarian cancer.

UT Southwestern researchers who have received a National Cancer Institute grant to study BRCA1 and other genes related to ovarian cancer include Bowcock; Dr. David Scott Miller, associate professor of obstetrics/gynecology; Dr. Joseph Lucci III, assistant professor of obstetrics/gynecology; and Dr. Michael Mathis, assistant professor of obstetrics and gynecology.

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"The fear of gynecologic cancer is among women's greatest fears," said Miller, director of the gynecologic oncology program at UT Southwestern. "This is especially true of ovarian cancer, which is difficult to diagnose until it is too late. The Family Cancer Registry may aid in early diagnosis by helping to identify women who need closer monitoring."

Lucci said, "To aid our research efforts, we're seeking women who are currently being treated for ovarian cancer as well as those who do not have gynecologic cancer but have close relatives who have been treated for the disease. It's important to note, however, that just because a woman has a number of close relatives with gynecologic cancer does not necessarily mean that she is at high risk. For some women, participating in the registry may produce genetic information that can allay fears about cancer."

Dr. Arthur Sagalowsky, professor of urology at UT Southwestern, pointed out that familial clustering of cancer may not be restricted to women. Two recent studies have shown that men in families with multiple cases of breast cancer may be at increased risk of developing prostate cancer.

"Prostate cancer, the most common cancer in men, can be cured if caught early, and genetic testing for predisposition may allow us to do that," said Sagalowsky. He is UT Southwestern's principal investigator for a national multicenter drug trial designed to determine if daily administration of the drug finasteride can prevent the development of prostate cancer in high-risk men.

Minna said current screening technology allows researchers to search for mutations on cancer-related genes in chromosomes 2, 3, 5, 9, 10, 11, 13 and 17. He stated that future research is likely to reveal other cancer-related genes. However, the identification of these mutations and the future application of that knowledge raises major ethical and research questions.

The UT Southwestern Family Cancer Registry is open to people nationwide. People can call for themselves or have their physicians call. Callers will be asked to complete a phone survey and enroll in the registry if the survey reveals a strong family tendency to develop cancer. From that point, other family members can be interviewed to see if they wish to enter the Family Cancer Registry Program at UT Southwestern. People who wish to enroll should call (214) 648-3162.

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The UT Southwestern Family Cancer Registry

The following are key members of UT Southwestern's multifocused Family Cancer Registry:

The University of Texas Southwestern Medical Center at Dallas:

—Dr. Anne Bowcock, assistant professor pediatrics
—Dr. Thelma Hurd, assistant professor of surgery
—Dr. James Huth, professor of surgery
—Dr. Marilyn Leitch, assistant professor of surgery
—Dr. Joseph Anthony Lucci III, assistant professor of obstetrics/gynecology
—Dr. Michael Mathis, assistant professor of obstetrics/gynecology
—Dr. John McConnell, associate professor of surgery/urology
—Dr. David Scott Miller, associate professor of obstetrics/gynecology
—Dr. John Minna, professor of internal medicine and professor of pharmacology
—Dr. Claus Roehrborn, assistant professor of surgery/urology
—Dr. Arthur Sagalowsky, professor of surgery/urology
—Dr. Gail Tomlinson, assistant professor of pediatrics

Baylor-Sammons Cancer Center at Dallas:

—Dr. Joanne L. Blum, medical oncology
—Ms. Barbara Blumberg, patient education
—Dr. Phil Evans III, diagnostic mammography
—Dr. Michael Grant, surgery
—Dr. Steven E. Harms, diagnostic mammography
—Dr. Stephen E. Jones, medical oncology
—Dr. Sally M. Knox, surgery
—Dr. Zech H. Lieberman, surgery
—Dr. George N. Peters, surgery
—Dr. Marvin J. Stone, medical oncology

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The Susan G. Komen Breast Cancer Foundation was founded to create awareness about breast cancer and serve as an alternative source of funding for breast cancer research by awarding education and research grants. Key members of the Komen Foundation are as follows:

Susan G. Komen Breast Cancer Foundation:

Nancy Brinker, founding chairman
Nancy Byrd, executive director
Elin Greenberg, chairman of the board
Elizabeth Hart, chairman of The Komen Alliance
Elda Railey, director of finance and administration, staff liason