

May 18-22

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By Beverly Taylor
1-5-18-87

Mathematics
May Reduce
Heart Surgery

LUBBOCK--Mathematics may someday help physicians pinpoint heart damage and cardiovascular blockage without cutting the patient.

The only way physicians now have of exactly determining the extent and location of heart damage and cardiovascular blockage is to perform exploratory open heart surgery -- a traumatic and risky operation.

The standard diagnostic tool is the electrocardiogram (ECG), a record of electrical activity of the heart. Although it is helpful, the ECG only provides clues about the nature of cardiovascular problems.

Texas Tech University mathematics Professor Clyde F. Martin wants to improve the diagnostic information ECGs provide so that the need for exploratory heart surgery will be reduced.

"When the heart is diseased or damaged because of a heart attack, the muscles are weakened and they die," Dr. Martin said. "Dead muscles don't give off any electrical activity."

Martin and his colleagues are analyzing mathematical equations which will allow prediction of normal electrical potential of various parts of the heart. By knowing what the electrical potential is for specific areas and by making the ECG more informative, scientists may be able to pinpoint areas of damage without opening the body to look at the damage.

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The ECG involves placing on the body electrodes which record electrical activity. The ECG printout is a recording of electrical waves or currents which by their pattern reveal the area of the heart from which they originated.

Martin said the electrical potential at a given point on the body depends on the coordinates of the point -- its location, depth in the body and thickness. The length of time the measurement is taken also governs the amount of electrical current which is recorded.

"We want to do to the ECG what the CAT scan did to the X-ray," Martin said. "X-rays are one-dimensional pictures of cross sections of the body while CAT scans give full three-dimensional pictures."

The electrocardiogram is a one-dimensional model of electrical activity of the heart. The researchers are trying to evolve the ECG into a two-dimensional model which would provide more information.

"What we eventually want to do is put enough electrodes on the torso to actually reconstruct a map of the electrical activity of the heart's surface," he said. "The mathematical equations would tell physiologists what they should expect to see and then they could compare the actual ECG to expected or normal readings."

"If a physician knew what blood vessels were blocked, it might be possible to unclog them with medication or physically through a very small opening in the body," Martin said.

After the mathematical research is done, Martin plans to test the findings in collaboration with the Texas Tech University Health Sciences Center Department of Physiology.

CONTACT: K. Hopper

5-5-19-87

LUBBOCK -- Artists and their work can foster understanding and communication among people of different cultures.

Texas Tech University art professor Ken Dixon with his three-panel mixed media painting, "Life's Mysteries ... the Meaning of Art," has been selected as one of 28 artists to exhibit their works May 19-28 in Maastricht, Netherlands.

More than 570 artists were considered for the Greater Midwest/International Fine Arts Exhibition, which features artists from the United States and other countries and encourages artist-to-audience communication.

Dixon's work was exhibited in February in Warrensburg, Mo., at Central Missouri State University, which sponsors the Greater Midwest/International Exhibition with the Missouri Arts Council.

CONTACT: Beverly Taylor

6-5-19-87

LUBBOCK -- Five outstanding students for 1986-87 have been named by the Texas Tech University Department of Agricultural Economics.

Honored students are Danny Keesee, son of Mr. and Mrs. H.H. Keesee of Cookville; Amy Smith Helms and Donna Smith, daughters of Mr. and Mrs. Delbert Smith of Littlefield; Brian Heinrich, son of Mr. and Mrs. Eugene Heinrich of Slaton and Melinda McCormick, daughter of Mr. and Mrs. Melvin McCormick of Hearne.

Keesee, who was named the department's overall outstanding student, graduated in May with a 3.9 grade point average (GPA).

Helms, who graduated in May with a 3.96 GPA, was named outstanding senior.

With a 4.0 GPA, Smith was chosen outstanding freshman.

Heinrich has a 3.96 GPA and was named outstanding junior.

McCormick has a 3.6 GPA and was selected outstanding sophomore.

CONTACT: News and Publications

7-5-19-87

LUBBOCK--An endowment fund in the name of Arthur H. Leidigh, the first dean of agriculture at Texas Tech, has been established to provide graduate fellowships and eventually a professorship in the Texas Tech University College of Agricultural Sciences.

The Leidigh Memorial Fund honors the man who served as dean of the School of Agriculture at Texas Technological College from 1925 to 1945. About \$25,000 has been donated to the fund to date. A total of \$150,000 is required to establish the Dean Leidigh Professorship in Plant and Soil Science.

Donations may be made to the Texas Tech Foundation, Leidigh Fund, P.O. Box 4169, Lubbock, Texas 79409.

Leidigh came to Texas Tech from the Texas Agricultural Experiment Station. He earned a bachelor's degree from Kansas State University in 1902 and a master's degree from Texas A&M University in 1923.

Leidigh began the school in 1925 with two other faculty members. he was responsible for agronomy classes. The other faculty members taught horticulture, cotton and animal husbandry.

Leidigh retired with the rank of dean of agriculture emeritus in 1945. He died in 1947.

Leidigh began the School of Agriculture in 1925 with two other faculty members, two brand new buildings, and a lot of dreams. In spite of the ever-present problem of a lack of money, the Great Depression and the depletions of World War II, Leidigh built an excellent foundation for educational and research programs in agriculture that have grown and developed into what is today one of the major agricultural colleges of the nation.

CONTACT: K. Hopper

9-5-19-87

LUBBOCK -- Texas Tech University administrators announced today the selection of the first dean of the College of Architecture, the university's newest academic unit.

Robert Wayne Drummond, A.I.A., whose appointment will begin July 15, was selected among a pool of 25 applicants, said search committee chairman Dean Carl Stem, of the College of Business Administration.

Drummond previously served as professor and chairman of the Department of Architecture at Auburn University in Auburn, Ala.

The search announcement was made a little more than a year after the final approval for the seventh college was granted by the Coordinating Board, Texas College and University System, in April, 1986. Architecture previously was a division within the College of Engineering.

Architecture Professor A. Dudley Thompson has been serving as interim dean since the academic unit was granted college status.

Drummond, who is a registered architect, began serving in his previous position and working as a design and programming consultant in Auburn in June 1979. During the 1984-85 academic year, Drummond was on leave to work through Rice University as a senior research associate and educational consultant to King Faisal University, College of Architecture and Planning, in Dammam, Saudi Arabia.

He also was in 1982-83 a member of the American Institute of Architects national task force on architectural education. During the same years, he was selected for accreditation visits for the National Architectural Accrediting Board.

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Drummond from 1977-1979 was director of architecture for Henningson, Durham and Richardson International in Washington, D.C. He was director of planning and design from 1970-75 in Topeka and Kansas City, Kan., for Kiene and Bradley Partnership. Also, he worked in 1969 as an architectural designer for Caudill, Rowlett and Scott Architects in Houston.

From 1969-1975, Drummond taught at the University of Kansas, School of Architecture and Urban Design, and from 1975-77, he taught at the Clemson University College of Architecture.

His educational background includes a mechanical engineering degree from the University of Southwestern Louisiana in Lafayette, La., a bachelor of architecture degree from Louisiana State University in Baton Rouge and a master of architecture degree from Rice University in Houston. Drummond also received a diploma in 1967 from the Fountainebleau School of Music and Fine Arts in France. In 1984, he was given an honorary diploma from the University of Francisco Marroquin in Guatemala City.

Drummond has traveled and studied extensively abroad and has been named to Who's Who lists in the south and southwest, in American education and in the world.

The Texas Tech College of Architecture has 39 faculty members and a student fall enrollment figure of 794. Specializations are offered in design, structures, urban design, history and historic preservation, and a dual degree program in architecture and civil engineering.

Story ideas for the week of
May 26-29, 1987
11-5-21-87

Texas Tech University
University News & Publications
BOX 4640/LUBBOCK, TEXAS 79409/(806) 742-2136

Radio & Television NewService

THE CUTTING EDGE OF MATH--Mathematics may someday help physicians pinpoint heart damage and cardiovascular blockage without surgical procedures. Texas Tech University mathematics Professor Clyde F. Martin wants to improve the diagnostic information ECGs (electrocardiograms) provide on a patient's heart function, and possibly eliminate the need for potentially dangerous exploratory surgery. For details, contact Dr. Martin, 742-1511.

FIGHTING FLEAS AND TICKS--With the rise in summer temperatures comes an increase in flea and tick activity. Texas Tech entomologist Dr. Harlan Thorvilson says recommended pesticides are effective if used properly, but the best prevention against these pests in the home is a good vacuum cleaner. He says vacuuming helps remove eggs and larvae from carpet and furniture. He also recommends the use of tweezers to remove ticks from pets, not a hot cigarette or a match. For more on how to contend with flea and tick season, contact Dr. Thorvilson at 742-2828.

June 1-28--CAMPUS SOUNDS--The Carillon will ring out during a series of recitals every Sunday evening at 8:15. The summer evening presentation of music from the bell tower of the Texas Tech Administration Building has become a campus tradition. For more information, call 742-2294.

For assistance with these and other story ideas, contact Dorothy Power/Don Vanlandingham, News & Publications, 742-2186.

Texas Tech News

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TEXAS TECH UNIVERSITY/TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER
NEWS AND PUBLICATIONS/P.O. BOX 4640/LUBBOCK, TEXAS 79409/(806) 742-2136

CONTACT: Deborah Palmer/Beverly Taylor

12-5-21-87

LUBBOCK -- Issues and concerns involved in educating and caring for young children will be covered in the "Third Annual Early Childhood Conference" June 12-13 at Texas Tech University.

Conference speakers will include Mary Blankenship, associate professor of curriculum and instruction in education at Texas Woman's University, Denton; Ann Candler, associate professor of education at Texas Tech; and Bertie W. Kingore, associate professor of early childhood education at Hardin Simmons University, Abilene.

Dr. Blankenship will discuss "Quality Programs for Young Children: Piaget as a Model" on June 12. On June 13, Dr. Candler will present "Children as Learners: We May Be Lost, But We're Making Good Time," and Dr. Kingore will explore "Helping Children Solve Their Own Problems."

Also on June 13, a panel of five Lubbock educators will discuss "What is a Quality Education for the Young Child." Pat Simpson, coordinator of early childhood programs for Lubbock Independent School District, will be panel moderator.

Panelists will be Nancy Benz, coordinator of child development at South Plains College; Madeline Douglas, early childhood specialist for the Region XVII Education Service Center; Tommy Tidwell, research project administrator for the Institute of Child and Family Studies in Texas Tech's College of Home Economics; and John R. Nevius Jr., a professor of early childhood education in Texas Tech's College of Education.

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Co-sponsored by the South Plains Association for the Education of Young Children and the Texas Tech Division of Continuing Education, the conference will be from 8 a.m. to 5 p.m. Friday, June 12 and from 8 a.m. to 4:30 p.m. Saturday, June 13.

Preregistration fee is \$35. After May 31, registration is \$45. One day of the conference is \$25 by May 31 and \$30 after May 31. Continuing Education Units or one semester hour of graduate credit is available at a nominal fee. Clock hours of training for the Department of Human Resources can also be obtained.

Workshops will focus on curriculum, administration, personal development, physiological aspects of learning and coping with interpersonal conflict.

For more information or to register, contact Rocky Wilson, Division of Continuing Education, Box 4110, Texas Tech University, Lubbock, Texas 79409, (806) 742-2352.

MEDICAL TIPSHEET

from

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

May 22, 1987

GROW UP--For children, physical growth may not always come natural. While many times medical reasons may be involved, sometimes the cause may be a poor home environment. Called "psycho-social dwarfism," the phenomenon suggests that stunted growth may not always be a result of inadequate diet or even poor health care. Instead, a home in which the child is ignored, subjected to undue pressures or faced with the stress of incompatible parents may create psychological problems which influence the growth mechanisms. For details, call Surendra K. Varma, M.D., in the TTUHSC Pediatrics Department at (806) 743-2301

UNDER CONTROL--The perfect birth control is 100 percent effective with zero side effects. Unfortunately, the ideal birth control has yet to be perfected. Even use of the pill results in an average of 19 pregnancies per 1,000 women. But as medical researchers look for improved birth control, they pay particular attention to the effects on users. This involves extensive testing and precise documentation before the Federal Drug Administration will approve a new birth control method for public use. For information on how the process works, contact TTUHSC Obstetrics and Gynecology Department Chairman M. Wayne Heine, M.D., who has been involved in birth control research and evaluation for 20 years. Dr. Heine currently directs a birth control study involving more than 100 women over a two-year period. He may be reached at (806) 743-2354.

KEEPING CURRENT--The pace of medical science and technology is making it difficult for doctors to keep up with the advances in medicine. This is particularly true for doctors in rural areas because of their isolation. Now, newly created professional review organizations (PROs) are making it crucial for doctors to stay current. Required by federal law at the state level, PROs assess physician competency. Physicians who receive PRO sanctions can be banned from receiving Medicare and Medicaid payments, which can total up to 80 percent of their practice. This issue is helping focus more attention on continuing medical education as the logical vehicle to keep rural physicians current and to ensure that small communities have physicians. For more, contact A. Bryan Spires, M.D., TTUHSC associate dean for continuing medical education, at (806) 743-2237.

For assistance in covering these or other stories, contact TTUHSC news manager Preston Lewis at (806) 743-2143. Photographs and video footage can be arranged upon request.

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CONTACT: News and Publications

14-5-22-87

Events this week at Texas Tech University include a lecture and reception at The Museum and a deadline for a summer writing workshop.

A lecture and reception are planned for "Handmade and Heartfelt: Contemporary Folk Art in Texas" which opened May 24 at The Museum. The exhibit features the handmade creations of more than 50 Texas folk artists. Patricia Jasper, founder of Texas Folklife Resources which prepared the exhibit with Laguna Gloria Art Museum in Austin, will speak about folk art and the exhibit at 7 p.m. May 28 at The Museum. A reception for the artists and the public will be from 2-4 p.m. May 30 at The Museum. Both events are free.

June 1 is the deadline for the Young Writers' Workshop which will be July 13-30 at Texas Tech. Forty-five fourth- through 12th graders can attend the \$150 workshop which will meet from 9 a.m. to noon Mondays through Thursdays. Sponsored by the Caprock Area Writing Project (CAWP) in the College of Education, the program is for students who want to improve their writing. Contact Shirley Koeller at 742-2368 or Helen Otken at 742-2352.