

(Untitled)

1-10-23-95	New Ed Assn Dean	newdean	MW
2-10-23-95	McDonald Teach Award	mcdonald	MW
3-10-23-95	bus.isoa	Semicon	JL
4-10-24-95	Minority recruiters	minority	MW
5-10-25-95	Physics Conference	physics	JB
A			
6-10-25-95	Greek Pledges Workshop	Greeks.adv	SK
7-10-25-95	Breedlove	media	cg
8-10-26-95	Library	Auction	JL
9-10-26-95	Meat Judging 3rd place	meat1022	JB
A			
10-10-26-95	ATP/ARP State Grants	ATP_ ARP.TXT	SK
11-10-26-95	ATP/ARP Grants shortened	ATP_ ARP2.TXT	SK



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FOR IMMEDIATE RELEASE

REF: 1-10-23-95

CONTACT: Myrna Whitehead
or Jim Campbell

LUBBOCK -- Mary K. Tallent-Runnels was named associate dean of administration and special projects in the Texas Tech University College of Education.

Tallent-Runnels replaces Ann Candler-Lotven, who resigned in July and accepted the position as dean of the College of Education at Oklahoma State University.

Tallent-Runnels came to Texas Tech in 1986 to serve as director of the Institute for the Gifted in Continuing Education and later became associate director of Continuing Education at Texas Tech. She most recently was an associate professor of educational psychology and special education and, for the past three years, has served as program coordinator for educational psychology.

The primary focus of her research is in learning and study strategies and gifted children.

Tallent-Runnels was on the board of The Association for the Gifted. In addition, she chaired the creativity division for the National Association for Gifted Children and served as president of the Southwest Educational Research Association.

Tallent-Runnels received her bachelor's degree in elementary education in 1971 from the University of Houston, a master's degree in reading/elementary education in 1974 from Southern Illinois University and a doctorate in educational psychology in 1985 from Texas A&M University.

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FOR IMMEDIATE RELEASE

REF: 2-10-23-95

**CONTACT: Myrna Whitehead
or Jim Campbell**

LUBBOCK -- Texas Tech University Assistant Professor of Education Kathryn Button was named the first recipient of the Donald McDonald Excellence in Teaching Award. Button's award-winning project was a language/literacy development course she introduced to two local elementary school classrooms.

Button taught the course at both Wilson and Ramirez Elementary schools of the Lubbock Independent School District. She coordinated student interns who worked with fifth-grade students and teachers. The interns presented writing workshops in the elementary classroom and became writing partners with the students.

Button teaches children's literature, language/literacy development and early literacy.

Nomination for the award is open to Texas Tech graduates, students and tenure-track faculty for innovative teaching. The McDonald family established the award in the College of Education in memory of Donald McDonald.

McDonald was a member of the faculty at Texas Tech from 1948-54 and again from 1964-83. He was interim dean of the College of Education from 1967-68 and 1972-73. He served as associate dean from 1968-72 and 1973-79.

McDonald retired in 1983 after 26 years of serving the College of Education and passed away in 1994.

NEWS RELEASE**TEXAS TECH**
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FAX (806) 742-1615**FOR IMMEDIATE RELEASE**
REF: 3-10-23-95
CONTACT: Jennifer LeNoir

LUBBOCK -- Software developed by researchers at Texas Tech University's Institute for Studies of Organizational Automation will be on display at an exhibition of semiconductor manufacturing products at the SEMICON Southwest exhibit in Austin Tuesday and Wednesday (Oct. 24-25).

According to Kathleen Hennessey, director of the institute and professor of information systems at Texas Tech, the software is based on automated visual inspection techniques developed through a collaboration between Texas Instruments and Texas Tech researchers. Researchers on the project have received \$1.1 million in funding since 1988 from the Texas Higher Education Coordinating Board's Advanced Technology Program for the development of the software.

Patent applications filed by Texas Instruments are pending, Hennessey said. The system currently is under beta site testing in Austin and at Tencor Corp. under a SEMATECH evaluation program. Systems with the Texas Tech software now are available to semiconductor manufacturers.

Our achievements in this challenging field are the result of visionary leadership on the part of the Coordinating Board, Texas Instruments and Texas Tech. They have supported a focused effort to solve one of the semiconductor industry's most intractable problems, automated defect classification, and it has paid off," Hennessey said.

Hennessey and YouLing Lin, a research scientist at the institute, as well as additional institute researchers, have developed knowledge based techniques for the automated classification of semiconductor defects and for the compression and automated indexing of image defects. The technique was developed to provide facilities originally specified by Rinn Cleavelin, equipment processes technology manager, and Howard Hastings, systems engineering manager in the Lubbock Metal Oxide Semiconductor Wafer Fabrication Unit, both at Texas Instruments in Lubbock.

According to Hennessey, the Automated Defect Classification software uses artificial intelligence to name a defect on computer chips and continue to provide the correct name to the same kind of defect, even if it looks slightly different or is on a different background. The system also accumulates an indexed defect image library to help engineers and operators identify causes of defects.

SEMATECH evaluated defect classification systems from throughout the world before choosing Texas Tech's software for beta testing. Hennessey said Texas Tech and IBM were the only two facilities that met their criteria. Texas Tech's system has an 87 percent accuracy rate in competitive tests.

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SEMICON/PAGE 2

During the project, the Texas Tech institute has collaborated with Tencor Corp. in Sunnyvale, Calif., a semiconductor equipment manufacturer and Leica Corp. in Wetzlar, Germany.

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MEDIA ADVISORY**REF: 4-10-24-95****CONTACT: Myrna Whitehead**

LUBBOCK -- Area elementary-age students will participate in a collegiate recruitment conference Friday (Nov. 3) at Texas Tech University as part of a program designed to encourage sixth-grade minority students to begin thinking about college and a career in education. Media representatives may attend all events.

The conference is co-sponsored by the Texas Tech College of Education and the Lubbock Independent School District.

According to Alex Crowder, professor of curriculum and instruction, the program creates a vital link to students. "Initially, we're going to be looking at preparing these students for college and also looking at teaching as a career," Crowder said. "Before minority students can consider teaching as a career, they first must believe that college is a possibility."

Fourteen elementary schools in the Lubbock Independent School District are participating in the conference. Up to four students from each school, invited to attend the conference, were chosen by a committee of teachers and the school's principals. Beginning this year, additional schools included in the program are Shallowater, New Deal, Frenship, Woodrow, Cooper, Roosevelt, Idalou and Slaton.

The second phase of the program will involve tracking the students through high school graduation. Each year these students will be invited to visit the campus as well as participate in an "adoption" program with undergraduate students in the College of Education. The college students will make regular contact with their little brothers/sisters.

The third phase of the program, during the students' high school years, will focus on helping the students finance their education through loans, grants or work study.

The conference will begin with registration at 8:30 a.m. in Room 244 of the Administration Building. At 9 a.m., Elaine Jarchow, dean of the College of Education, will deliver the welcome in the University Center Senate Room. Spike Wideman, senior vice president at the American Bank of Commerce at Wolfforth, will present "Start Now Thinking About Going to College."

Ramirez Elementary School Principal Lucy Brown will speak on "Have You Considered Becoming a Teacher" at 10 a.m. A physics circus hosted by David Lamp, assistant professor of physics, will be held at 11 a.m. in the Science Building Room 25.

After a lunch break in the Hulen-Clements Dining Hall, the Texas Tech High Riders will conduct a campus tour beginning at 12:45 p.m. from the Administration Building. The tour will be followed by a small group discussions featuring undergraduate education students interacting with the elementary school students at 1:45 p.m. in the Administration Building.

LUBBOCK -- Three Nobel Laureates will highlight the joint fall meeting of the Texas Section of the American Physical Society, the Texas Section of the American Association of Physics Teachers and Zone 13 of the Society of Physics Students. Members of the three organizations will converge in Lubbock for the conference hosted by the department of physics at Texas Tech University Thursday through Saturday (Oct. 26-28).

Three Nobel Laureates and two world renowned physicists will be available for media interviews at 11:50 a.m. Friday in the Fort Worth Room of the Holiday Inn Lubbock Plaza. The guests will be able to discuss funding scientific research during budget cutting times.

The first conference session, "Frontiers in Physics," will consist of lectures by these five scientists in the Dallas-Irving Room of the Holiday Inn Lubbock Plaza.

Friday morning (Oct. 27) Leon M. Lederman, who was awarded the 1988 Nobel Prize in Physics, will start the conference at 8:30 a.m. with a strategy for the survival of research funding during budget cutting times. Lederman's presentation, "Obstacles at the Frontier of Physics," has been the subject of national discussion while Congress debates balancing the federal budget. Lederman is the Pritzker professor of science at Illinois Institute of Technology in Chicago and director emeritus at Fermi National Accelerator Lab in Chicago.

At 9:20 a.m., Clifford G. Shull, who was awarded the 1994 Nobel Prize for Physics, will review the early development of neutron scattering during World War II. Shull is an emeritus professor of physics at the Massachusetts Institute of Technology.

At 9:50 a.m., Ilya Prigogine, who was awarded the 1977 Nobel Prize for Chemistry, will present "Time, Chaos and the Laws of Nature." Prigogine will explain a more unified formulation of physics which includes the evolutionary description of nature. Prigogine is the Ashbel Smith professor of physics at the University of Texas in Austin.

At 10:30 a.m., Edward Teller, who has served as a presidential adviser and as a scientist on the Manhattan Project and the first nuclear reactor, will present "How to Make Nuclear Reactors Acceptable." He will discuss making reactor operation entirely automatic. Teller is a senior research fellow at the Hoover Institution at Stanford University.

At 11:10 a.m., T. Nejat Veziroglu, editor-in-chief of the monthly "International Journal of Hydrogen Energy," will present "Hydrogen Energy System as a Solution to Global Environmental Problems." Hydrogen, the most efficient energy carrier, does not produce greenhouse gases, acid rain ingredients, ozone layer depleting chemicals or pollution. Veziroglu is the director of the University of Miami's Clean Energy Research Institute.

Physics and physics teaching sessions continue through Saturday afternoon. Session schedules are available at the Holiday Inn Lubbock Plaza.

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MEDIA ADVISORY

REF: 6-10-25-95

CONTACT: Steve Kauffman

LUBBOCK -- Texas Tech University fraternity and sorority pledges/new members will learn about issues facing the Greek community during an education program, "True Colors," at 6:30 p.m. Thursday (Oct. 26) in the University Center Allen Theatre. Media interviews with presenters and participants are encouraged.

The program is intended to educate new members of fraternities and sororities about critical current issues as well as provide an opportunity for social interaction among the different chapter members, according to Brandon Miller, graduate adviser for Greek Life in the Dean of Student's Office.

Topics for the evening presentation include relationship and gender communications, risk management, hazing and time management.

Speakers for the program include Michael Shonrock, dean of students and national vice president of Order of Omega Greek honor society; Patricia Honacki, assistant dean of students; and Panhellenic Council and Interfraternity Council executive officers. The program is sponsored by the Dean of Students Office and the Texas Tech chapter of Order of Omega.

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MEDIA ADVISORY

REF: 7-10-25-95

CONTACT: Charles Griffin

LUBBOCK -- "SOUPer Solution," part of the fifth annual Make A Difference Day, will begin at 4:30 p.m. Friday (Oct. 27) in the Breedlove Dehydration Plant, located at 1702 N. Martin Luther King Blvd. The event will continue until 5 p.m. Saturday (Oct. 28). Media interviews are invited.

The Breedlove plant, a division of the South Plains Food Bank, is teaming with Texas Tech student volunteers, in a 24-hour period to produce enough dried soup mix to feed one million people. An estimated 300 to 400 Texas Tech students are expected to donate three hours each at the plant. The event will require 12 shifts with approximately 30 volunteers working each shift.

Volunteers will mix and package the dehydrated soup mix which will be distributed to the needy and homeless people in inner-city Los Angeles, through the cooperative efforts of LIFE Outreach, a Los Angeles street ministry called Dream Center, Breedlove and Texas Tech students. Each package produced and distributed to the needy will bear a label that states it was "Produced by Texas Tech Volunteers."

Spokespersons for all three agencies say the endeavor is more than just a one-shot effort to relieve suffering in a single inner city. Because of the focus on Los Angeles as the epitome of what ails American inner cities, they expect the project to be an inspiration and example for similar efforts in cities across the country.

LIFE Outreach, formerly known as the James Robison Evangelistic Association, has been active for several years in humanitarian relief programs. Searching for ways to increase LIFE Outreach's domestic relief efforts, organization leaders said they realized the soup mix was ideal for feeding programs such as Los Angeles.

Administrators at the South Plains Food Bank say that dehydrated food, due to its long shelf life and nutritional value, will become increasingly important in feeding the hungry. Also, the shipment and production of dehydrated foods has proven to be more cost efficient than that of canned or frozen foods.

"Based on a cost of 60 cents per pound of soup mix, one 8 oz. serving could be produced and shipped to a needy family for less than 2 cents," said Howard Mercer, Breedlove marketing director.

Recently, members of Breedlove were notified that the dehydration plant would appear in the "Guinness Book of Records" as being the largest non-profit factory drying surplus crops to feed the poor. The \$7 million plant went on-line in October 1994 with no federal assistance or aid from the United Way.

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FOR IMMEDIATE RELEASE
REF: 8-10-26-95
CONTACT: Jennifer LeNoir

LUBBOCK -- The Friends of the University Library/Southwest Collection at Texas Tech University will sponsor a fundraising rare book and memorabilia auction from 7 to 10 p.m. Thursday (Nov. 2) at the Merket Alumni Center on 17th Street and University Avenue on the Texas Tech campus.

Friends organization members and the general public are welcome to attend the free event. The reservation deadline is Tuesday (Oct. 31).

The silent auction will run from 7 to 9 p.m., and the live auction begins at 7:30 p.m. Books and memorabilia items will be on display at 7 p.m. Bill Wade, past president of the Friends organization, will serve as the auctioneer.

The auction will feature a souvenir program from the first football game played by Texas Technological College against McMurray College at Fair Park in Lubbock on Oct. 3, 1925. The game ended in a 0-0 tie.

The auction will consist of books by authors such as James W. Freeman, James A. Michener, Harley True Burton, David B. Gracy II, Laura V. Hamner, Vance Johnson, Paul Patterson, Carlisle Graham Raht, Clarence Pope, Andrew J. Sowell, N.A. Jennings, Paul Horgan, J. Frank Dobie, M.C. Overton, M.D., J. Evetts Haley, Frank Reaugh, Brian W. Dippie and Jimmy Carter.

The event will include a "Certificate of Stock in the Town of Menard," a 40th anniversary framed photograph of Texas Tech, a 1909/1910 promotional cloth display produced by the *Lubbock Avalanche* (now the *Lubbock Avalanche-Journal*) and a signed, limited edition of David J. Murrah's book, "Oil, Taxes, and Cats: A History of the DeVitt Family and the Mallet Ranch."

The silent auction will feature works by authors such as James W. Abert, Max Coleman, Frank Collinson, Christine Cornell, Ross Edwards, William H. Elson and Christine Keck, Harriette Taylor Treadwell and Margaret Free, Ben K. Green, Charles A. Guy, J.A. Hill, Etta Lynch, John L. McCarty, John Myers, Walter Rundell Jr., Ray A. Stephens and William M. Holmes and Elsie Montgomery Wilbanks. Additional objects will include La Ventana yearbooks from 1970 and 1971, an Official Highway Map of Texas issued by the State Highway Commission in 1926, a 1905 pocket-sized edition of "The Rubaiyat of Omar Khayyam" and a four-page edition of the Dec. 23, 1874, *Sacramento Daily Union* detailing the Red River Indian War.

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BOOK AUCTION/PAGE 2

Additionally, the silent auction will contain books donated to the Friends organization from the Texas Tech Bookstore. The titles have been sorted and bundled according to the topic area, and are packaged in baskets. The topic areas are Folk Heroes, Outlaws and Texas Rangers; Frontier Women; History and Politics of Texas; Living and Laughing in Texas; Working in the West; Big People and Even Bigger Land; Best Friends: Both Man and Animal; Native American Tales; Native Americans of the Southwest; A Spicy Variety; Tales and Traditions of the American West; Taming the Frontier: Texas Tales I; Remembering When: Texas Tales II; Building the Western Frontier and Westward Ho!

Proceeds from the book and memorabilia auction will be used to enhance the collections, services and programs of the University Library and Southwest Collection. For more information concerning the book and memorabilia auction, or membership into the Friends organization, please contact Carrie Sundstrom, assistant director of library development, at (806) 742-3685.

The event is partially underwritten by City Bank, Lee Lewis Construction Inc. and Poka Lambro Telephone Cooperative.

Persons with disabilities who plan to attend the auction and who may need auxiliary aids or services are requested to notify Sundstrom when making reservations so that appropriate arrangements can be made.

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FOR IMMEDIATE RELEASE
REF: 9-10-26-95
CONTACT: Josh Allen

LUBBOCK -- Texas Tech University's Meat Judging Team took third place overall among 10 universities at the Excel High Plains Meat Judging Contest in Plainview Sunday (Oct. 22).

The team placed first in institutional meat purchasing specifications, a competition where members judge the cuts of the meat based on industry standards. Texas Tech also placed first in reason, a competition where teams are judged based on their justification for placing a meat in a particular class.

Jason Belew, a team member from Tahoka, scored the highest of any individual in the competition. Travis Cook of Wheeler earned the seventh highest individual scores.

Earlier this month, Texas Tech's Meat Judging Team topped five universities to win the Eastern National Meat Judging Contest Oct. 7 in Wyalusing, Penn.

Mark Miller, associate professor in the department of animal science and food technology, and Micah Butler, graduate teaching assistant in the same department, coach the team of eight Texas Tech students.

Members of the team are Michael Schertz of Krum, Laura Locke of Wharton, Jarrod Usner of Fredricksberg, Justin Ransom of Wichita Falls, Doug Alderson of Midland, Scott Brown of Carrizozo, N.M., Belew and Cook.

Meat judging teams place in contests by rating meat products most like the evaluation of the judges, who represent the meat industry.

Texas Tech's next national competition is the American Royal in Empora, Kansas, Nov. 5. The International Meat Judging Contest follows Nov. 19 in Dakota City, Neb.

FOR IMMEDIATE RELEASE
REF: 10-10-26-95
CONTACT: Steve Kauffman

LUBBOCK -- Researchers at Texas Tech University and Texas Tech University Health Sciences Center obtained almost \$4.4 million in basic and applied research grants from some \$60.5 million in funds awarded today (Oct. 26) by the Texas Higher Education Coordinating Board.

The awards, announced at the board's quarterly meeting in Austin, were distributed among 400 research projects at 35 Texas institutions of higher education for the 1996-97 biennium.

Texas Tech University researchers received \$3,824,111 to fund 35 projects. Both are records for the university in the ATP/ARP awards.

The total placed the university among the highest-funded institutions. The awards were selected from more than 3,000 proposals reviewed by 15 panels comprised of scientists and engineers, according to a Coordinating Board statement.

"We are pleased with the number of funded awards and with the total amount of funding we received. Our increase from previous years indicates the commitment to research made by our faculty," said University Vice Provost for Research Robert M. Sweazy.

The largest Texas Tech award was a \$332,240 grant to Kathleen Hennessey, director of the Institute for Studies in Organizational Automation in the College of Business Administration, for "Automated Semiconductor Defect Management."

The grant will allow her to adapt and integrate facilities developed to provide technology for the identification and categorization of computer chips. The research also will provide defect analysis and integrated inspection work stations to automatically detect, classify and diagnose defects while archiving the defect images via network.

The Texas Tech University Health Sciences Center received five grants totaling \$576,917 and involving seven faculty members from the schools of medicine and allied health.

The largest grant among health sciences center faculty went to Richard D. Nathan, associate professor of physiology. Nathan received a \$149,643 grant to investigate "Intracellular Calcium and the Electrical Activity of Cells Isolated from the Pacemaker of the Heart."

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ATP/ARP GRANTS/PAGE 2

TTUHSC Vice Provost for Research Kenneth L. Barker, said, "This level of support from the Texas Higher Education Coordinating Board reflects well on the quality and expertise of our faculty at the health sciences center. The funding shows we are continuing to strengthen our overall research program in line with our institutional plan for the future."

Other recipients at the health sciences center were:

James C. Hutson, professor of cell biology and biochemistry, "Significance of Cell Contact in Mediating Interactions between Macrophages and Leydig Cells," \$140,969.

Abdul N. Hamood, assistant professor of microbiology and immunology, and John Griswold, assistant professor of surgery, "A Multi-Component *Pseudomonas Aeruginosa* Vaccine for High Risk Patients," \$126,794.

Ted W. Reid, professor of ophthalmology, and David McCartney, M.D., professor and chairman of ophthalmology, "The Design of an Intraocular Lens with Covalently Bound Selenium," \$82,000.

And, Raymond Linville, professor and chairman of communication disorders, "Vocal Fold Burns: Medical and Communicative Effects," \$77,511.

The university's second largest award was \$222,281 to Shan L. Bilimoria, associate professor of biological sciences, for his project "A Virus Against the Cotton Boll Weevil: Gene Expression and Inhibition of Host Function." The pathogenic microbe he is developing is effective on contact and will work under natural conditions against the Boll Weevil.

Other projects funded at the university include:

Randy Allen, associate professor, department of biological sciences, "Strategy for Using Oxidative Enzymes to Reduce Insect Damage In Transgenic Cotton," \$151,718.

Dick L. Auld, professor and chairman of the department of plant and soil sciences, and Harry Parker, professor in the department of chemical engineering, "Castor As A Source of Ricin Toxin for Use As Immunotoxins for the Treatment Of Human Diseases," \$118,533.

Donald J. Bagert, Jr., associate professor in the department of computer science, "Iconic Software Development Environments," \$83,187.

Robert J. Baker, Horn professor in the department of biological sciences, "Biotechnology Management for Ratite Agriculture," \$167,904.

ATP/ARP GRANTS/PAGE 3

Richard A. Bartsch, Horn professor in the department of chemistry and biochemistry, "Improved Manufacture of Microelectronics System," \$154,486.

Dominick J. Casadonte, Jr., associate professor in the department of chemistry and biochemistry, "Oxidative Degradation of Organic Contaminants In Aqueous Media Using Ultrasound," \$116,348.

Kwong S. Chao, professor in the department of electrical engineering, "High-Speed And High-Resolution Oversampled Analog-To-Digital Converters," \$88,200.

Purnendu K. Dasgupta, Horn professor in the department of chemistry and biochemistry, "Indoor Pollution. Diagnostic Sick Building Syndrome: Biological Or Chemical Problem?," \$137,662.

James Dunyak, assistant professor in the department of mathematics, and Edward J. Allen, associate professor in the department of mathematics, "Stochastic Methods For Numerical Solution of PDEs," \$66,500.

Atila Ertas, professor in the department of mechanical engineering, and Jesse C. Jones, lecturer in the department of mechanical engineering, "Design, Development and Construction of A New Automated Peanut Processing Facility," \$127,096.

M. Dean Ethridge, director of International Center for Textile Research and Development, and Donald C. Wunsch, assistant professor in the department of electrical engineering, "Objective Selection and Control of Cotton for Efficient Textile Manufacturing," \$159,080.

Clifford B. Fedler, associate professor in the department of civil engineering, and Nick C. Parker, research professor in the department of range, wildlife and fisheries management, "Effect of Enzymes On High Strength Waste Treatment," \$179,820.

Gregory I. Gellene, associate professor in the department of chemistry and biochemistry, "Does N_2H Participate In the Thermal De- NO_x Process?," \$115,135.

Ruth Gornet, assistant professor in the department of mathematics, "The Laplace Spectrum Vs. the (Marked) Length Spectrum of Riemannian Nilmanifolds," \$40,816.

A. Scott Holaday, associate professor in the department of biological sciences, and Candace H. Haigler, professor in the department of biological sciences, "Testing Transformed Cotton With Improved Photosynthesis and Fiber Under Cool Temperatures," \$149,872.

William J. Kolarik, professor in the department of industrial engineering, "System Self-Assessment of Survival," \$69,255.

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ATP/ARP GRANTS/PAGE 4

Ira W. Lewis, professor in the department of mathematics, "Problems In Continuum Theory Related To Discrete Dynamics," \$48,750.

David J. Mehrl, assistant professor in the department of electrical engineering, and James M. Gregory, associate academic dean for the College of Engineering, "Optical Instrumentation for Real-Time In-Situ Measurements of Airborne Dust Particles," \$111,260.

E. Roland Menzel, professor in the department of physics, and Lynn L. Hatfield, professor in the department of physics, "Aging Mechanisms of Electrical Insulation," \$178,666.

Charles W. Myles, professor and chairman of the department of physics, "Microscopic Physics of Semiconductor Switch Materials," \$89,847.

W. David Nes, assistant professor in the department of chemistry and biochemistry, "Sterol Utilization and Metabolism by Phytophagous Insects and Nematodes," \$160,000.

Carroll Nunn, assistant professor in the department of mathematics, "Grid-Generation Techniques for Liquid Crystal Droplet Problems," \$26,106.

Michael Parten, associate professor in the department of electrical engineering, "System Control for A Hybrid Electric Vehicle," \$127,514.

Richard E. Peterson, professor and chairman of the department of geosciences, "Wavelet Analysis of Turbulent Flow in the Surface Layer," \$44,466.

Jahan Rasty, associate professor in the department of mechanical engineering, and Darryl L. James, assistant professor in the department of mechanical engineering, "Effective Control of Distortions and Residual Stresses Induced By Rapid Quenching," \$88,000.

R. Russell Rhinehart, professor in the department of chemical engineering, "Automated Stopping Criteria for Neural Network Training," \$75,960.

Lawrence Schovanec, associate professor in the department of mathematics, "The Mathematics of Muscular Control and Bone Remodelling In Biomechanics," \$35,435.

Marianna A. Shubov, assistant professor in the department of mathematics, "Nonself-Adjoint Operators and Control Theory," \$28,880.

Douglas A. Smith, research assistant professor in the department of civil engineering, and James R. McDonald, professor in the department of civil engineering, "Wind Damage Prediction Using Doppler Radar," \$148,858.

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ATP/ARP GRANTS/PAGE 5

Julian Spallholz, professor in the department of education, nutrition and restaurant/hotel management, "Design of Interocular Lens With Covalently Bound Selenium," \$18,000.

Song Yang, associate professor in the department of mathematics, "Semiparametric Survival Models: Analysis and Implementation," \$47,500.

Hong-chao Zhang, associate professor in the department of industrial engineering, "A Disassembly Model for Pc Recycling Model," \$66,736.

Reiyao Zhu, head of fiber research at the International Center for Textile Research and Development, and Richard W. Tock, professor in the department of chemical engineering, "Development of A High-Speed, Woven Fabric Tester," \$48,000.

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FOR IMMEDIATE RELEASE

REF: 11-10-26-95

CONTACT: Steve Kauffman

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The awards, announced at the board's quarterly meeting in Austin, were distributed among 400 research projects at 35 Texas institutions of higher education for the 1996-97 biennium.

Texas Tech University researchers received \$3,824,111 to fund 35 projects. Both figures are records for the university in Advance Technology Program and Advanced Research Program awards.

The total placed the university among the four highest-funded institutions. The awards were selected from more than 3,000 proposals reviewed by 15 panels comprised of scientists and engineers, according to a Coordinating Board statement. The program is the largest state-supported, competitive peer-reviewed research grants program in the nation.

The largest Texas Tech award was a \$332,240 grant to Kathleen Hennessey, director of the Institute for Studies in Organizational Automation in the College of Business Administration, for "Automated Semiconductor Defect Management." The grant will allow her to adapt and integrate facilities developed to provide technology for the identification and categorization of computer chips. The research also will provide defect analysis and integrated inspection work stations to automatically detect, classify and diagnose defects while archiving the defect images via network.

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News & Publications, HSC Bureau

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HEALTH TIPSHEET
from
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER
October 27, 1995

EYE-YI-EYE -- The role of ultra-violet light in causing cataracts has long been understood, but a TTUHSC researcher in ophthalmology has helped discover UV rays' role in another eye disease.

Working with a California physician, Ted W. Reid, Ph.D., has identified UV rays as causing a mutation in gene P53 of the limbal epithelial cells which are part of the surface of the eye near the cornea. This mutation leads to a wing-shaped, opaque growth on the cornea.

This malady, called pterygia, is most common in regions close to the equator, striking up to 10 percent of the population. In some areas of the southern and southwestern United States, the malady effects up to 5 percent of the residents. Left untreated, pterygia can lead to blindness.

Findings by Reid and his associate, Nicholas Dushku, M.D., an ophthalmologist with Kaiser Permanente Medical Center in Sacramento, Calif., have shown that the mutation is brought about by UV light bouncing off the cheekbone to the cornea which then focuses the rays on the nasal side of the eyeball. This regular exposure causes the mutation in the limbal cells which leads to the problem.

For more on pterygia, contact Reid at (806) 743-2417.

THE SCREEN TEAM -- David Freed, Ph.D., is teaming up with area churches to help West Texas families deal with Alzheimer's disease.

During November's National Alzheimer's Research Month, Freed will be offering free dementia screenings. Ministers from across the South Plains will be asked to distribute information about Alzheimer's as well as the screenings to their congregations.

"We've found that ministers have weekly, if not daily, contact with many elderly people," said Freed, who runs the Rural Alzheimer's Disease Project at the Texas Tech University Health Sciences Center. "They are often the first ones to notice the memory loss and behavioral changes that often accompany Alzheimer's."

The screenings will not only give patients a diagnosis, but will also link them and their families into a support network of education and services. For more information about Alzheimer's, contact Freed or Kena Dubberly at 743-2643.

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For assistance on these or other stories, contact Sandra Pulley or Preston Lewis at TTUHSC News and Publications, (806) 743-2143.

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LUBBOCK -- Dr. Neal Lane, director of the National Science Foundation, and a national panel of experts will discuss "Current Issues in Scientific Research" during a video conference Wednesday (Nov. 1) at the Texas Tech University Health Sciences Center.

The national "town meeting" on science and society is scheduled noon to 2 p.m. Wednesday in TTUHSC Room 2B152. The program is sponsored by Texas Tech's chapter of Sigma Xi, the scientific research society, and is open to the public. Because space is limited, interested individuals should register in advance by calling Susan Maddux at 743-2556.

Topics to be addressed by Lane and panelists include trends and transitions for academic, corporate and government research laboratories, impending constraints on research and development funding in non-defense sectors and the impact of the transition and contraction on human resources and research institutions.

Panelists for the program will include Mildred A. Dresselhaus, electrical engineering and physics professor, Massachusetts Institute of Technology; David Goodstein, vice provost and physics and applied physics, California Institute of Technology; Daniel S. Greenberg, editor and publisher, Science and Government Report; Thomas J. Meyer, vice chancellor of graduate studies/research and chemistry professor, University of North Carolina at Chapel Hill; and former U.S. Attorney General Dick Thornburgh, co-chair, Task Force on State-Federal Partnership in Science and Technology.

TTUHSC Vice Provost for Research Kenneth Barker, Ph.D., who is also president of the Texas Tech Sigma Xi chapter, said the video conference will provide a window into the future not only for scientists and academicians but also for entrepreneurs and corporate executives.

Barker said, "Today is a time of change in scientific research. Those who adapt to that change will be successful in the research climate of tomorrow. The task before us all is to identify how change will affect the future of research. The video conference will provide a sense of that direction."

For additional information or to request assistance for persons with disabilities, contact Susan Maddux at 743-2556.