



The Basic Facts

Volume 6, Issue 3, March 2005

The Basic Facts, College of Basic and Applied Sciences, Middle Tennessee State University, Murfreesboro, TN

CBAS Faculty Member Receives John Pleas Faculty Award

The Science of Success

Inside this issue:	
CBAS Faculty Member Receives Award	1
Manufacturing Excellence Conference	1
Biology Professor Named to Governor's Council	1
Our Best	2

Congratulations to Associate Professor Patricia Patterson (Chemistry) for receiving the John Pleas Faculty Award given annually to a minority faculty member who has demonstrated excellence in teaching, research and service. The award was inaugurated in 1997 to honor Dr. John Pleas, MTSU Professor of Psychology, who retired in Spring 2004. An open house with recognition ceremonies was held at the Alumni Center March 15.

Dr. Patterson joined the MTSU faculty in 1998 after having spent

thirteen years working in industry as a polymer scientist. Her Ph.D. is from Case Western Reserve University. She is very active in the preparation of science teachers with her primary teaching assignment being P S C I 4 0 3 0 , Experimental Physical Science. Along with Dr. Amy Phelps (Chemistry) and Dr. Linda Gilbert (Educational Leadership), Dr. Patterson received a Tennessee Higher Education Commission Improving Teacher Quality Grant to support a project titled "Highly Qualified and Beyond:



A Focus on Chemistry." Dr. Patterson has served as the Director of a Science Olympiad Regional Competition held at MTSU since 2001. She is also the faculty advisor to MTSU's National Science Teachers Association (NSTA) Student Chapter, approved by NSTA in December 2004 as the second student chapter in Tennessee. This organization is open to all pre-service teachers, regardless of content specialty. When asked to identify the accomplishment for which she is most proud, Dr. Patterson mentioned her work for "Science to You" which she began in 1998. "Science to You" takes Dr. Patterson to K-8 schools to involve students and their teachers in hands-on science.

Russell Chair of Manufacturing Excellence Presents Inaugural Manufacturing Excellence Conference

The first conference on manufacturing excellence sponsored by the Russell Chair of Manufacturing Excellence and the College of Basic & Applied Sciences was attended by 105 people at the World Outreach Church Thursday, March 17. Distinguished speakers highlighted the day's activities. John Greaves, RFID Technology Global Lead, Deloitte Consulting LLP, highlighted Radio Frequency Identification (RFID) around the world including the cost, concerns and practical considerations in implementing RFID. Rita Burgett, President, Strategic Transformations, Inc., discussed the importance of the people factor in technology change and

how ignoring the effect change has on the personnel is most often a factor in project failure. Dr. Fred Cohen, best known as the inventor of defense techniques for computer viruses, gave many historical examples of security failure in IT systems and how difficult it is to develop robust defense techniques against manipulation by unwanted parties. Mark Swenson, Vice President, Manufacturing Engineering, Nissan North America, gave an overview of Nissan worldwide manufacturing and pointed out that it takes only 17 hours from raw materials to a completed automobile. Dr. Charles Perry, Chairholder of MTSU's Russell Chair

of Manufacturing Excellence, discussed some of the national competitions in which ETIS students participate every year. His examples served as a reminder of the roles both technology and teamwork play in being successful in competition.



Biology Professor Named to Governor's Advisory Council

Professor Cindi Smith-Walters (Biology), co-director of the MTSU Center for Environmental Education, has been named by Governor Phil Bredesen to a three-year term of office on the



Clean Tennessee - Keep America Beautiful Advisory Council. Council members are selected because of their background and knowledge regarding the environment, litter prevention, public education, and resource management. Also, congratulations to

Professor Walters for the Center for Environmental Education receiving a five-year \$1,143,161 grant from the TN Department of Environment and Conservation which will allow the Center & MTSU to work with urban areas across the state to target a major source of water pollution.



Visit our newsletter web site to view all The Basic Facts' issues:

<http://www.mtsu.edu/~collbas/newsletters>



The Basic B.E.S.T. (Boastful Educators Sharing Talents)

All departments are invited to submit items for this column

Aerospace

Dr. Robert J. Schwinghamer, former NASA Deputy Director for Space Transportation, was a guest speaker in the Aerospace Department February 26. Dr. Schwinghamer was a chief designer and engineer on the Redstone rocket that powered Alan Sheppard's flight, the Atlas rocket that sent John Glenn into orbit, and the Saturn V rocket that took astronauts to the moon. Retired astronaut Hoot Gibson was also on hand to introduce the guest speaker and answer questions.

Agribusiness/ Agriscience

Rhonda Hoffman and **Johnny Haffner** had a grant, "Determining Pathology and Strategies for Management of Insulin Resistant Laminitis," funded by the American Quarter Horse Foundation for \$43,000. MTSU was the only non-land grant school in 2005 to obtain funding from this organization for equine research. **Harjanto Djunaidi** presented "Trend and Development of Farmland in the United States: Who Gains and Who Loses?" at the Urban-Rural Interfaces International Conference in Atlanta March 15. **Harjanto Djunaidi** presented "Econometric and Time Series Model Selections: A Choice Between Two Possible Approaches to Assess Linkages Between the U.S. and Export Chicken Markets." at the March CBAS research seminar.

Biology

Karen Hargrove, WaterWorks! Director for the MTSU Center for Environmental Education, is serving as a member of the Stakeholders Roundtable for the State Department of Environment and Conservation (TDEC). The Roundtable has been instrumental in

the development and implementation of the Bureau of Environment and other key TDEC environmental initiatives for 2005.

Karen Hargrove also presented a poster at the TN EPSCoR Environmental Summit at Tennessee Technological University in February.

Cindi Smith-Walters, Biology professor and co-director of the MTSU Center for Environmental Education, recently conducted a Flying WILD educator workshop and a Flying WILD facilitator training at Warner Park Nature Center in Nashville.



Rhonda Hoffman, Anne Brzezicki, Tom Cheatham and Dave Whitaker spent three days studying what makes the West Texas A&M University horse science program one of the top programs in the U.S.

Laura McCall and **Karen Hargrove**, both from MTSU's Center for Environmental Education, led presentations at Kid City in February at the Boys and Girls Club in Murfreesboro. Kid City is organized to teach elementary students how a city operates.

Jeff Walck published a paper with colleagues at Linkoping University, Sweden, in *Annals of Botany*. The paper was entitled "Complex Combination of Seed Dormancy and Seedling Development Determine Emergence of *Viburnum Tinus* (Caprifoliaceae)."

Kim Cleary Sadler was selected to serve on the *Journal of College Science Teaching* publication review board. Also, she and a colleague presented "College Professors Serve as Science Mentors for Pre-service Elementary Teacher Candidates" at the International Conference for the Association of the Education of Science Teachers January 21 in Colorado Springs, Colorado.

Chemistry

Linda Wilson presented "Teaching Chemistry in Forensic Science Courses for Criminal Justice Majors," and "Are Summer Students Different From Fall Semester Students in Introductory General Chemistry?" at the 170th 2YC3 meeting in Palomar College in San Marcos, California. **Linda Wilson** also presented "Intensive Courses in Introductory Chemistry: Does Student Performance Suffer?" at the 229th National Meeting of the American Chemical Society in San Diego, California, March 15.

Pat Patterson presented a poster at the Tennessee Science Teacher's Association Professional Development Conference in Franklin and co-presented "Science Olympiad."

Pat Patterson was a judge at the Warren County First Lego League Invitational Tournament in McMinnville. Directed by **Pat Patterson**, the MTSU Science Olympiad Regional Competition was held in February. Over 380 students from 30 middle and high schools participated. **Amy Phelps** served as assistant director.

Engineering Technology and Industrial Studies

Saeed Foroudestan presented "Help Wanted! Seeking the Multi-Talented Engineers" and "Engineering Technology Students—Getting Them Here to Stay" at the 2005 Annual Conference for Industry and Education Collaboration in Savannah, Georgia, in February.

Nursing

Suzanne Prevost presented "How to Use Logistic Regression in the Real World" in the Department of

The Walker Library is pleased to announce that its Applied Science and Technology database has recently been upgraded to a full-text service. Links to the database can be found at www.mtsu.edu/~library/gateway.html.

Mathematics in February and "Pharmacological Trends and New Drug Developments" at the Michigan Association of Rehabilitation Nurses Annual Conference in Detroit in March.

Lynn Parsons presented "Success on the NCLEX-RN for Nursing Leadership and Management Concepts" at Roane State Community College in February.

Lynn Parsons published "Clinical Nurse Leader: Another Role—More Confusion" in *SCI Nursing*, Volume 22 (1) March 2005.

Physics

First Friday Star Parties are scheduled for April 1 and May 6 beginning at 6:30 p.m. in WPS 102.

CBAS

Twelve students from the MTSU Educational Talent Search (METS) program attended the 2005 TASP Academic Bowl Competition March 12 winning first place. They will proceed to the regional Academic Bowl in Atlanta April 2.

Tennessee Louis Stokes Alliance for Minority Participation (TLSAMP) student Chelsea Bond received first-place honors for her oral presentation at the 2nd Annual TLSAMP Undergraduate Research Symposium at the University of Memphis in March. Also presenting from MTSU were Eugene Siebert and Erion Franklin. **Tom Cheatham** served as the Master of Ceremonies for the closing banquet.



Diane Miller, Interim Associate Dean, presented "Using Writing to Help Students Construct an Understanding of Scientific and Mathematical Concepts" at the CBAS Teaching and Learning Seminar in March.