



# The Basic Facts

Volume 7, Issue 4, April 2006

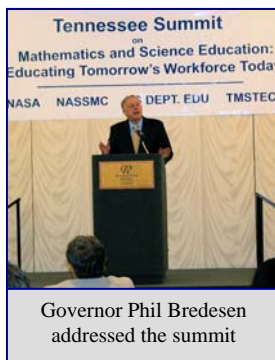
The Basic Facts, College of Basic and Applied Sciences, Middle Tennessee State University, Murfreesboro, TN

## Tennessee Summit on Mathematics and Science Education

### The Science of Success

Inside this issue:	
TN Summit on Mathematics and Science Education	1
College Showcase	1
TLSAMP & METS	1
Our Best	2

The Tennessee Mathematics, Science and Technology Education Center (TMSTEC) designed and conducted a statewide summit on mathematics and science education in Nashville April 11-12. The theme of the summit was Educating Tomorrow's Workforce Today. The summit was the culmination of the Tennessee Linking Leaders program coordinated by TMSTEC and was funded by a grant from the National Aeronautics and Space



Governor Phil Bredesen addressed the summit

Administration (NASA), the National Alliance of State Science and Mathematics Coalitions (NASSMC) and the U.S. Department of Education. As Governor Phil Bredesen and Commissioner Joe Barker indicated to the group, Tennessee's economic growth and development is dependent upon

increasing the state's high school graduation rate and doing a better job of educating those who do graduate. Further, bringing good jobs with good pay to Tennessee depends upon having a better educated workforce capable of dealing with today's more technologically-oriented jobs. The outcome of the summit will be a set of consensus recommendations for presentation to appropriate policy makers addressing how Tennessee's educational system can increase the high school graduation rate and better prepare graduates for college or the workplace.

## College Showcase Features Dr. Carlos Gutierrez

CBAS hosted the college showcase luncheon Friday, April 7. Dr. Carlos Gutierrez, a nationally-known scientist and mentor, was the invited speaker. Dr. Gutierrez received the President's Award for Excellence in Science, Mathematics, and Engineering Mentoring in 1996. Currently a professor in the

Department of Chemistry and Biochemistry at the University of California, LA, Dr. Gutierrez has a great reputation for mentoring Hispanic students, undergraduates and graduates. He



focused on "Undergraduate Research as a Context for Student Career Development and Success." All faculty from CBAS were invited to attend, as well as several invited guests from the other colleges. Approximately 40 CBAS faculty and staff attended the lecture.



## TLSAMP & METS Keeping Students Busy

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

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



The third annual TLSAMP (Tennessee Louis Stokes Alliance for Minority Participation) Research Symposium was hosted by the University of Tennessee, Knoxville, April 6-7. This year Tamara Augustine, Ian Mitchell

and Amethia Seay made presentations. Ten MTSU Educational Talent Search (METS) students from Coffee, Grundy, and Warren counties were selected to attend the Tennessee Association of Special Program (TASP) Academic Bowl hosted at MTSU. These students placed second, making this the second consecutive year that

the METS students have placed as one of the top three programs in the state. The METS program works with disadvantaged students from grades 6-12, helping them achieve a college education. The METS program is 100% federally funded at \$204,000 annually.





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

All departments are invited to submit items for this column

### Agrribusiness/ Agriscience

**Tony Johnston** and two senior students, Ashley Gregory and Erica Martin, participated in the ABAS honor society, Delta Tau Alpha, annual convention in Commerce, TX, in March. They won the annual quiz bowl competition.

### Chemistry

The following faculty made presentations at the National Meeting of the ACS: **Scott Handy, William Ilsley, Laura Whitson, Ngee Sing Chong, Beng Guat Ooi, Michael Sanger, Amy Phelps, Pat Patterson, Martin Stewart, and Gary Wulfsberg.**

**Gary Wulfsberg, Michael Sanger, Tammy Melton** and former doctoral student Joseph S. Chimeno, published "The Rainbow Wheel and Rainbow Matrix: Two Effective Tools for Learning Ionic Nomenclature" in the *Journal of Chemical Education* in April.

**Judith Iriarte-Gross** organized and presided over a presidential symposium titled "Women Leaders in Chemistry: Stories of Challenges Met" at the national meeting of the American Chemical Society in Atlanta, GA, in March. She also presented a talk.

**Judith Iriarte-Gross** spoke to the Upward Bound students of Trinity University in Washington, DC. The title of her invited presentation was "The Path to College and a Career in Science."

**Dwight Patterson** has been awarded a position through August 11, 2006 as a Fellow in the National Science Foundation Research Site for Educators in Chemistry (RSEC) at the University of Tennessee.

### Computer Science

**Jungsoon Yoo** received her medallion for 15 years of service at MTSU.



**Richard Detmer** attended the SIGSCE 2006 ACM Conference in Houston, TX, in March.

### Mathematical Sciences

Five students from the Math Department have been accepted to Ph.D. programs. Active faculty involvement plays an important role in helping a student's development. Many faculty, including **Diane Miller, Don Nelson, Ginger Rowell, Chris Stephens, and Dennis Walsh** provided help and encouragement to these students.

**Lisa Green** and Scott McDaniel from Developmental Studies presented a workshop titled "Using a Digital Library to Teach Statistics." This was based on joint work with **Ginger Rowell** and former students Megan Hall and Ileah McKee.

**Abdul Khaliq** is the guest editor for the *International Journal of Computer Mathematics* which will publish a special issue on "Splitting Methods for Differential Equations."

**Abdul Khaliq's** students, Jason Wix and Chance Phelps, actuarial science majors, attended an undergraduate workshop on mathematics at North Carolina Research Triangle Park, NC, March 3-4. The workshop was organized by Statistical and Applied Mathematical Sciences Institute and funded by the NSF.

**Don Hong** and Qingbo Xue, a former graduate student, recently published "Construction of Piecewise Linear Prewavelets Over Regular Triangulations in the *Journal of Concrete and Applicable Mathematics*.

**Don Hong** and Yu Shyr, professor of Biostatistics at Vanderbilt University, published "Wavelet Applications in Can-

cer Study" in the *Journal of Concrete and Applicable Mathematics*.

**Don Hong** also recently presented: "Proteomic Data Analysis Using Wavelets and Splines" at the Department of Mathematics, Central Florida University, Orlando, FL. He also made a poster presentation coauthored by S. Chen, and Y. Shyr, titled "A Comprehensive MALDI-TOF MS Data Preprocessing Method Using Feedback Concept" at the International Biometric Society 2006 ENAR Spring Meetings, Tampa, FL.

### Military Science

The Army ROTC Department planned and conducted a combined Field Training Exercise with five other universities held at Ft. Knox, KY, March 30 through April 2. Evaluated events included: land navigation, marksmanship, field leadership reaction, and tactical training. MTSU cadre and ROTC seniors took the lead in evaluating cadets from all universities.

### Nursing

The Xi Alpha chapter of Sigma Theta Tau International Nursing Honor Society hosted the Annual Scholarship Day March 24. Dr. Pat Thompson, Associate Dean at the University of Arkansas Health Science Center in Little Rock, AR, was the keynote speaker. Forty-six students and nine faculty presented posters in the afternoon session. Approximately 115 people attended this one-day event.

### Physics & Astronomy

Travis Denton, a Physics major, received a summer research fellowship from the American Association of Physicists in Medicine.

There is one remaining **First Friday Star Party** on May 5 beginning at

6:30 p.m.. The topic of the lecture will be "What About the Dark Matter?" presented by **Chuck Higgins**.

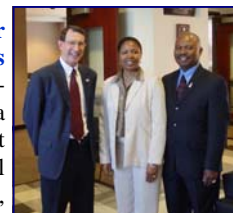


### CBAS

Nancy Joseph, a **TLSAMP** (Tennessee Louis Stokes Alliance for Minority Participation) student, has been admitted to the Summer Medical and Dental Education Program at the Columbia University Medical Center.

Chatoria Kent, MS-PS in Biotechnology, served on the graduate student panel at the TLSAMP Research Symposium hosted by the University of Tennessee, Knoxville.

CBAS & the **McNair Scholars Program** co-hosted a campus visit by Carl McNair,



brother to the late Dr. Ronald E. McNair who was killed in the Challenger explosion in January 1986. Mr. McNair was on campus to make a presentation to students who qualified for admission into MTSU's Ronald E. McNair Post-Baccalaureate Achievement Program, commonly called the McNair Scholars program. Mr. McNair spoke on "Quitting is Not an Option."

**Saeed Foroudastan**, with graduate student Olivia Dees, presented "Solar Power and Sustainability in Developing Countries" at the 2006 International Conference on Renewable Energy for Developing Countries in Washington, DC.

**Saeed Foroudastan**, with Michael Anderton, presented "Implementing a National Competition Design Project as a Capstone Course at Middle Tennessee State University" at the 2006 ASEE Southeastern Annual Conference in Tuscaloosa, AL.