James Tyus, II is a 3rd-year doctoral student (Agricultural Biotechnology) working under the direction of Dr. Samuel Nahashon in the Poultry Nutrition and Genomics Laboratory at Tennessee State University. In August 2006, James received a Master of Science degree (Animal Science) from TSU. His Master's thesis project, entitled “Performance of Single Comb White Leghorn Chickens Fed Diets Containing Blood Meal Supplemented with Isoleucine,” evaluated the efficacy of blood meal as a protein source for growing and laying chickens. Experiments in that project measured both growth and egg production performance of birds fed blood meal, as well as blood meal’s effect on the expression of genes associated with nutrient metabolism. From that work, he has first-authored two manuscripts published in refereed journals and he is currently preparing a third manuscript centered on the genetic evaluations.

After receiving his MS, James accepted a one-year appointment as Research Assistant in the Institute

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Donna Collins in “Hey Florence”

“Hey Florence!” – a musical directed by Australian playwright Craig Christie and produced by Vanderbilt University’s Office of Cultural Enrichment premiered last September starring one of our own Tennessee State University graduate student, Donna Cheryll Collins BSN, RN (aka Florence). Donna is currently seeking her graduate degree from TSU’s School of Nursing. She received her undergraduate education in Nursing from TSU. Danna served as class President for the Associate Degree Nursing (AND) class of 2006.

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Mark Your Calendar!
Spring 2010 Workshops

Avoid Plagiarism
April 2010
For Master’s & Doctoral Students
Date, Time and location will be posted online at: [www.tnstate.edu/grad](http://www.tnstate.edu/grad). Students will be notified via MYTSU e-mail accounts.

Electronic Thesis/Dissertation (ETD) Workshop
March 2010
Master’s & Doctoral Candidates defending theses/dissertations in Fall 2009 are encouraged to attend.
Date, Time and location will be posted online at: [www.tnstate.edu/grad](http://www.tnstate.edu/grad). Students will be notified via MYTSU e-mail accounts.

Thesis/Dissertation Workshop
April 2010
Master’s & Doctoral students beginning or completing thesis/dissertation in Spring 2010 are encouraged to attend.
Date, Time and location will be posted online at: [www.tnstate.edu/grad](http://www.tnstate.edu/grad). Students will be notified via MYTSU e-mail accounts.

Spotlight: James Tyus, II

of Agricultural and Environmental Research. During that time, he honed his skills in techniques of molecular genetics including quantitative PCR, molecular cloning, gene sequencing and genomic library construction. He has presented data from these experiments at local, national and international research conferences and has won several oral and poster competitions for the effort. With lab mates Gary Kelley, Carl Darris, Jessica Johnson and Niesha Bonner, James is also preparing manuscripts from his work on the molecular characterization of the domesticated Guinea Fowl.

Currently, James is developing a prospectus for his PhD dissertation project. He plans to use genomic, proteomic and imaging approaches to evaluate Hypothalamic Angiotensin II and AMP-activated Protein Kinase activities in response to diet-induced obesity in avians. He is also pursuing several ‘mini-projects’ including the first-ever, high-resolution karyotype of the Guinea Fowl (using fluorescent-, transmission electron-, and atomic force-microscopy), and molecular characterization of the invasive fire ant. The work with fire ants, which is in collaboration with Dr. Sam Ochieng ([sochieng@bloband.net](mailto:sochieng@bloband.net)) at the Otis Floyd Nursery Research Center, promises to offer crop producers a rapid, accurate determination of the species and variety of fire ant attacking their nursery stocks. James hopes this work will lead to the development of a user-friendly, high-tech detection system that can be implemented on-site at nursery crop operations.

In addition to his research pursuits, James is also very active in many professional organizations including the American Society of Animal Science, the Poultry Science Association, the Tennessee Biotechnology Association, and the Agricultural Sciences Graduate Student Association (TSU). Perhaps most notably, James serves as Co-Executive Director for the Association of Pre-Professional Life Scientists (APLS or “Apples”; [www.aplsglobal.com](http://www.aplsglobal.com)). APLS is multi-institutional, multi-disciplinary professional organization focused on providing a more well-rounded training experience to high-school, undergraduate and graduate students in the life sciences. Through academic enrichment, professional development, life science education and student advocacy initiatives, APLS seeks to become an important resource supplement to its diverse membership. As of December 2009, APLS boasts a membership roster of more than 150 students, faculty and staff at TSU, Meharry Medical College, Vanderbilt University and, most recently, Middle Tennessee State University. James notes that, “as active as APLS is in working to help make students more competitive, we are just as interested in reaching out to the community in terms of mentorship and science education. We have got to narrow the achievement gap between young people from advantaged backgrounds and those from more limited-resource families and communities. Who better to serve as mentors and exemplars than young, professional scientists in training? I commend the APLS Service Committee, headed by Carl Darris and Lakesha Glover, for their work in positioning our organization as a ‘go-to’ for the community at large and specifically for the minority K-12 population in Nashville.”

Continues on page 7
Student and Faculty News

Mr. Olupopo Charles Agbaje, a graduate student from the research group of Dr. Cosmas Okoro, completed the M.S. program requirements in Chemistry, in 2009. His thesis title was “Lewis Acid Mediated Diastereoselective Synthesis of Fused Fluorinated and Non-Fluorinated Spiroketals as Potential Biologically Active Unnatural Products.” Mr. Agbaje is currently pursuing a second master’s degree in Environmental Engineering at Tennessee State University. Another student of Dr. Okoro, Mr. Olugbeminiyi Fadeyi, graduated with a M.S. in Chemistry in 2007, and is currently pursuing a Ph.D. in Organic Chemistry at Vanderbilt University. Mr. Fadeyi is also employed as Adjunct Instructor in the Department of Chemistry at Tennessee State University.

Ms. Shahrina Alam, a graduate student of Dr. Mohammad Al-Masum recently successfully, defended her thesis titled “Potassium Allyltrifluoroborates and Its Use in Organic Transformations.” Ms. Alam, who will be graduating in December 2009, is a co-author on a paper with Dr. Al-Masum, titled “Remarkable Regioselectivity in Microwave-Enhanced Palladium-Catalyzed Allylation Reaction Involving Allyltrifluoroborates and Aryl Halides” published in Tetrahedron Letters, volume 50, page 5201 (2009). In March 2009, Ms. Alam presented a poster titled “Microwave Irradiated Palladium Catalyzed Cross-Coupling Reaction of Potassium Allyltrifluoroborates and Organic Halides” at the 237th American Chemical Society National Meeting and Exposition in Salt Lake City, Utah. Ms. Maya Chen Wai, another graduate student of Dr. Al-Masum, successfully completed the M.S. requirements in 2009, and is currently enrolled in the Pharmacy doctoral program at The University of North Carolina at Chapel Hill. Ms. Wai’s thesis title was ”Microwave-Irradiated Benzoylation Reactions and Coupling Reactions.” Ms. Alam and Ms. Wai presented a joint poster at the 60th Southeast Regional Meeting of the American Chemical Society (SERCMS) in Nashville, Tennessee, in 2008. Ms. Wai presented a second poster in the 60th Southeast Regional Meeting of the American Chemical Society (SERCMS) in Nashville, in 2008. Dr. Al-Masum has published a paper titled ”Students’ Categorizations of Organic Compounds” in Chemistry Education Research and Practice (volume 9, page 114), in 2008, in collaboration with Dr. Daniel Domini and Dr. John Mensah. Dr. Al-Masum has also presented his work at the Gordon Research Conferences in Bryant University, Rhode Island, the 235th American Chemical Society National Meeting and Exposition in New Orleans, Louisiana, and the Tennessee Academy of Sciences meeting in Nashville, Tennessee, in 2008.

Mr. Prashant Bajaj, a graduate student of Dr. Joshua Moore, defended his master’s of science thesis this past November. His study is titled “Synthesis and Characterization of Lead Chalcogenide (PbE; E = Se, Te) Semiconductor Nanocomposite Materials in Silica Matrices.” Dr. Nsoki Phambu is training one of his graduate students, Mr. Murali Krishna Marneni, through a user proposal (approved) that was submitted to Oak Ridge National Laboratory for access to core characterization facilities. The project is titled ”Interactions between Membranes and Anionic Antimicrobial Peptides in the Presence of Metal Ions.” Mr. Marneni, along with two other graduate students of Dr. Phambu, Mr. Mahesh Kumar Aitha and Ms. Courtney Kennemore, presented at the 237th American Chemical Society National Meeting and Exposition at Salt Lake City, Utah, in March 2009. Mr. Marneni and Mr. Aitha is also scheduled to present individual posters, titled “Interactions between Antiviral Drugs and Model Membrane in the Presence of Metal Ions” and “Spectroscopic Studies of the Interactions of Cytosine with Metal Ions,” respectively, at the 239th American Chemical Society National Meeting and Exposition in San Francisco, California, in 2010. Mr. Baibai Kamara, who received his M.S. in Chemistry in 2007 from Dr. Phambu’s research group, is currently enrolled in the Ph.D. program in Pharmaceutical Sciences at Howard University. Mr. Kamara has presented posters at American Chemical Society national meetings in Atlanta and Chicago in 2006 and 2007.

Alan Bunger, Dana Davis, Sunaina Dhawan, LaNedra Lee, and Edilberto A. Raynes, research, ”Should Physical Therapists Consider Pulmonary Function in Asthmatic Children When Implementing an Aerobic Exercise Program?” was accepted in Proceedings by Intellectbase International Consortium Atlanta, GA, October 2009. It came in third place, at the poster presentation, Research Symposium Program, Tennessee State University, March 2009.

Matthew Corn, Chad Bullock, Don Kallail, Darin Payne, and Dr. Edilberto A. Raynes study entitled ” Does Supplemental Creatine Decrease Rehabilitation Time In Young Adults With Immobility Related Injuries?“ has been submitted (abstract) to the Experimental Biology 2010 Annual Conference Anaheim, CA, April 2010

”The study “The Ethical Issues of Scientific Research in Developing Countries,” co-authored by Drs. Edilberto A. Raynes, Ronald De Vera Barredo, Natalie Housel, Rosalyn Pitt, and Robert O’Connell, Jr., PhD (candidate); and Elizabeth Kunnu (HIA, Ed. S), was accepted for platform presentation Sydney, Australia, July 2009 (but not presented). The study has been published in International Journal of Health Information Intellectbase International Consortium.

Edilberto A. Raynes’ made a poster presentation of his study ”Cultural Differences on Knowledge, Attitude, and Practices Toward Tuberculosis Among Healthcare Providers in Nashville/Davidson County” at the Texas Center for Health Disparities, Fort Worth, TX. May 2009.

Dr. Sujata Guha, Associate Professor, Department of Chemistry at Tennessee State University received news that she has been appointed Chair-elect of the Nashville Section of the American Chemical Society..
## Important Dates to Remember*

### January
- **11-13** Registration
- **14** Classes Begin
- **14-22** Late Registration
- **18** Holiday-Martin Luther King
- **19-22** Late Registration
- **23** Doctoral Examinations
- **30** Doctoral Examinations

### February
- **24** Last Day to File Application for M.Ed., MPA & MS Comprehensive Exams for Spring 2010

### March
- **1-7** Mid-Term Examinations
- **8-14** Spring Break
- **16** Last day to Sign-in Thesis/Dissertation
- **19** MPA Comp. Examinations
- **20** M. Ed. & M.S. Comp. Exams
- **29** Last day to defend Thesis/Dissertation
- **31** Last day to withdraw from courses (Office of Records)
- **31** Last day to withdraw from University (Counseling Center)

### April
- **2** Holiday—Good Friday
- **12** Last day to Submit Thesis/Dissertation
- **29** Last day of Class
- **30** Final Exams

### May
- **1-7** Final Examinations
- **8** Spring Commencement

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*Calendar subject to change at any time prior to or during the academic year.

## 2009 Theses/Dissertations Published by ProQuest/UMI

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<th>Authors</th>
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<td>Lewis Acid Mediated Diastereoselective Synthesis of Fused Fluorinated &amp; Non Fluorinated Spiroketal: As potential biologically active unnatural products</td>
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<td>Values Incorporated in the Stories of Three Basal Reader Series Grades One through Three</td>
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<td>The Anti-carcinogenic effect of Chromolaena odorata, Ocimum basilicum, Erythrophleum suaveolens on Breast and Colon Cancer Lines</td>
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<td>The Antimicrobial Effects of Camellia Sinesis on Eschericia Coli, Salmonella Typhimurium and Staphylococcus Aureus</td>
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<td>Reservation Gaming: A Catalyst for Self-Governance for the Tribes of Arizona, New Mexico, and Oklahoma</td>
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<td>The Absence of a Father or Father Figure and its Impact on Academic Success of High School Males</td>
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<td>Effects of Tributyltin on Cytosolic Calcium and Actin in Human Natural Killer Cells</td>
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<td>The Impact Bullying and Aggression Has on Social Competence</td>
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<td>Problem Solving and Creativity: A Gender and Grade Level Comparison</td>
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<td>Vocational Identity Development and Affect among African-American and Caucasian Undergraduate Men</td>
<td>Marquitta M. Henry</td>
</tr>
</tbody>
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Walter S. Davis Scholarship

In memory of Dr. Walter S. Davis, President of Tennessee State University, 1943-1968, Mrs. Ivanetta Davis, his wife, and Dr. Ivan Davis, his son, established the Walter Strother Davis Scholarship Fund.

Each Spring, a $1,000.00 scholarship is awarded to the Tennessee State University graduate who has demonstrated the ability for advanced study and research. The award must be used for study leading to the Master’s degree at Tennessee State University.

The scholarship is available only to students eligible for the May 2010 graduation. Eligibility is further limited to those students who have a Grade Point Average (GPA) of 3.8 for the May Graduation. The deadline for application is April 1.

Persons desiring more information or application forms should contact the office of the Dean of the School of Graduate Studies and Research at: 615-963-5901 or gradschool@tnstate.edu.

Fee Adjustment Dates

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<th>Date</th>
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<tr>
<td>January 13</td>
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<tr>
<td>January 27</td>
<td>Last Day for 75% Fee Adjustment</td>
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<tr>
<td>February 10</td>
<td>Last Day for 25% Fee Adjustment</td>
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Tuition is charged at different per-credit-hour rates. Tuition will not be evenly exchanged for dropping and adding courses with different tuition rates. Once the semester begins, tuition exchanges are only allowed for courses with equal credit hours dropped and added on the same day. Visit www.tnstate.edu/bursar for more information.

Regents Online Degree Program (RODP) courses are charged at a different per-hour rate and are charged separately from Tennessee State University courses. RODP courses will not be evenly exchanged with TSU courses when dropping and adding even in the same day. For additional information visit: www.tnstate.edu/bursar.
Spotlight: James Tyus, II

James has been very active at TSU in recent years. He currently works as a Graduate Teaching Assistant under Dr. Constantine Fenderson (cfenderson@tnstate.edu), Chair of the Department of Agricultural Sciences. In 2009, he was named ‘Outstanding Graduate Student of the Year’ by the School of Agriculture and Consumer Sciences. Also in 2009, he was a participant of TSU’s first Interdisciplinary Graduate Research Team headed by Susan Verberne-Sutton (ssutto@tnstate.edu), Director of the Nano-Bio Core Facilities. He has been asked to serve on two taskforces: the TSU Research Park Taskforce led by Dr. Maria Thompson (mthompson@tnstate.edu), VP for the Division of Research and Sponsored Programs; and the EPA-Compliance Taskforce, led by Tommi Smith (tsmith@tnstate.edu), Coordinator of Campus Environmental Services and Safety. He has presented at the TSU University-Wide Research Symposium since 2007; twice winning top-honors in the graduate student oral competition. James was also tapped to moderate oral sessions at the 2009 TN Green Industries Field Day in McMinnville and the 2009 TN Louis Stokes Alliance for Minority Participation Annual Conference in Nashville.

James says: “When I decided to stay at TSU to pursue a PhD, I was determined to make the very most of my time here. Through APLS and ASGSA, I try to encourage new students to take as much ownership of their career development as possible. Graduate school is my job and I just want to put out the best product I can. I also want to bring new opportunities to my classmates and to my campus so that the next generation of grad students can leave here even more well prepared for their careers. We are doing some awesome things at TSU and I am just excited about being a part of them.”

Donna Collins in “Hey Florence”

The 60 minute musical featured vignettes offering an inside look at the day to day world of nursing at the bedside. Donna noted that the show was poignant, hilariously funny and at times heart breaking featuring songs like, “Someone’s Gotta Do It” which speaks of the messy jobs in nursing, “Another Goodbye” is all about the emotional toll of losing a patient, “Shut Up” which address the overworked nurse, and “I Need Chocolate” which speaks for itself.

Plans are in the works for the cast to perform for the American Nurses Association at the National Convention and possibly an international appearance in Scotland next year.

The School of Nursing is proud to congratulate one of our own!

Comments and suggestions related to this publication can be directed to: gradschool@tnstate.edu or (615) 963-5901