

## CURRICULUM VITAE

### Julie Ann Marshall, Ph.D.

#### EDUCATIONAL BACKGROUND

- Ph.D. Texas Tech University Major: Chemistry
- M.S. Texas Tech University Major: Chemistry
- B.S.ed. Lubbock Christian University Major: Science Education

#### PROFESSIONAL EXPERIENCE

- Consultant, Food Research and Development, August 2011-present
- JLA VP for Technology and Innovation November 1, 2009- May 15, 2011
- Technical Officer for JLA USA August 2008-October 2009
- Lubbock Christian University
  - 2011-present Professor of Chemistry, Department of Mathematics and Physical Science
  - 2003-2011 Associate Professor, Department of Mathematics and Physical Science
  - 2001-2002 Assistant Professor, Department of Mathematics and Physical Science
  - 1998-2001 Instructor, Department of Mathematics and Physical Science
  - 1995-1998 Laboratory Assistant, Department of Mathematics and Physical Science
- Texas Tech University
  - 1997-2001 Research Assistant, W. David Nes

#### PUBLICATIONS

- “Molecular Probing of the *Saccharomyces cerevisiae* Sterol 24-C Methyltransferase Reveals Multiple Amino Acid Residues Involved with C<sub>2</sub>-Transfer Activity”, K. Ganapathy, C.W. Jones, C.M. Stephens, R. Vatasayan, **J.A. Marshall**, and W.D. Nes, **BBA**, 1781 (2008) 344-351.
- “Active Site Mapping and Substrate Channeling in the Sterol Methyl Transferase Pathway”, W.D. Nes, **J.A. Marshall**, Z. Jia, T.T. Jaradat, Z. Song, and P. Jayasimha, *J Biol. Chem.* **277** (2002) 42549-42556.
- “Soybean Sterol Composition and Utilization by *Phytophthora sojae*”, **J.A. Marshall**, A.L. Dennis, T. Kumazawa, A.M. Haynes, and W.D. Nes, *Phytochemistry* **58** (2001) 423-428.
- “Isolation and Characterization of an Active Site Peptide from a Sterol Methyl Transferase with a Mechanism-Based Inhibitor”, **J.A. Marshall** and W.D. Nes, *Bioorg. Med. Chem. Letters* **9** (1999) 1533-1536.
- “Site-Directed Mutagenesis of the Sterol Methyl Transferase Active Site from *Saccharomyces cerevisiae* Results in Formation of Novel 24-Ethyl Sterols”, W.D. Nes, B.S. McCourt, **J.A. Marshall**, J. Ma, A.L. Dennis, M. Lopez, H. Li, and L. He, *J Org. Chem.* **64** (1999) 1535-1542.

## CURRICULUM VITAE

- “Mechanism-Based Active Site Modification of Sterol Methyl Transferase by Tritium-Labeled 26-Homocholesta-8,14,24-trien-26-yn-3 $\beta$ -ol”, W.D. Nes, **J.A. Marshall**, W. Zhou, L. He, and A.L. Dennis, *Tet. Letters* **39** (1999) 8578-8578.
- “Overexpression, Purification, and Stereochemical Studies of the Recombinant (S)-Adenosyl-L-methionine:  $\Delta^{24(25)}$ -to $\Delta^{24(28)}$ -Sterol Methyl Transferase Enzyme from *Saccharomyces cerevisiae*”, W.D. Nes, B.S. McCourt, W. Zhou, J. Ma, **J.A. Marshall**, L.A. Peek, and M. Brennan, *Arch. Biochem. Biophys.* 353 (1998) 297-311.

## CURRENT COURSE ACTIVITY

- 1305, Inorganic Chemistry, Fall 2012
- 4311, Biochemistry I, Fall 2012

## RESEARCH ACTIVITY

- Presentation on behalf of joint project with Birdsong Peanut Co., April 2012
- Presentation for JM Smucker’s technical group, April and July 2012
- Consultant for JM Smucker’s R&D 2011- present
- Consultant for Birdsong Peanut Co. 2011-present
- Technical officer for JLA USA: lead R&D for JLA and JM Smucker’s-JLA projects as well as other clients in all areas of the food manufacturing industry, proprietary and confidential 2005-2011
- Student presentations sponsored in 2010-2011  
Richard Roper and Lauren Long (joint project)  
“Identification and Quantification of Carbohydrates and Enzymes Produced by *Phanerochaete chrysosporium* in the Breakdown of Peanut Agricultural Waste”  
March 31-April 2 2011      25<sup>th</sup> National Conference on Undergraduate Research, Ithaca College, Ithaca, NY  
April 13-15 2011      Lubbock Christian University Colloquium, 2<sup>nd</sup> place
- Student presentations sponsored in 2009-2010  
Richard Roper  
“Microbial Survey of West Texas Well Water in Relation to the Presence of Migratory Birds and Storm Water Run-Off”  
March 2 – 5, 2010      TTUHSC Graduate School of Biomedical Sciences – Student Research Week  
March 26 – 28, 2010      Regional Honors Conference, Tulsa, OK  
April 8 – 9, 2010      Lubbock Christian University Colloquium  
April 15 – 17, 2010      24<sup>th</sup> National Conference on Undergraduate Research, University of Montana, Missoula, MT  
Samuel Hawkins and Richard Roper (joint project)  
“Optimal Propagation Parameters of Fungus X for Enzymatic Breakdown of Lignocellulosic Peanut Hull Biomass”  
November 12, 2009      North Texas Health Science Center High School and Undergraduate Research Symposium  
March 2 – 5, 2010      TTUHSC Graduate School of Biomedical Sciences – Student Research Week  
Stephanie Vander-Plas (Co-Sponsor)

## CURRICULUM VITAE

- “A Study of Retinal Implants in the Treatment of Retinitis Pigmentosa”  
March 26 – 28, 2010      Regional Honors Conference, Tulsa, OK  
April 8 – 9, 2010      Lubbock Christian University Colloquium  
April 15 – 17, 2010      24<sup>th</sup> National Conference on Undergraduate Research,  
University of Montana, Missoula, MT
- APRES (American Peanut Research and Education Society) 2010 Meeting,  
*Sensory Quality of Peanut Products Using and E-Nose*  
Presentation
  - Presentation to VPs JM Smucker’s and Global Advisors of JLA  
*JLA Welcomes JMS*  
May 24-25, 2010
  - 2009 LCU Scholar’s Colloquium  
*Annual Nutritional Needs for Optimal Antler Development, Gestation, and  
Lactation in White-Tailed Deer*  
Samuel Hawkins  
*Carbamate Pesticides in Peanuts*  
Paul Grubb, Research Mentor: Student Presentation
  - 2009 regional National Collegiate Honors Council, Lincoln Nebraska  
*A study of the Effects of Escherichia coli introduced into West Texas Playa Lakes  
through Migratory Birds on the Quality of Regional Well Water*  
Richard Roper, Research Mentor: Student Presentation  
2009 National Collegiate Honors Council, San Antonio Texas  
*Microbiological Examination of West Texas Well Water*  
Richard Roper, Research Mentor: Student Poster
  - 2008 American Chemistry Society SWRM, Little Rock AK  
*Enzyme Activity: Study of the Desaturase Gene in A. hypogaea*  
Paul Grubb, Research Mentor: Student Poster
  - 2008 LCU Scholar’s Colloquium, April 3-4 2008  
*High Performance Liquid Chromatography: Analysis of Peanut Carbohydrates*  
Brett Blackwell, Research Mentor: Student Presenter  
*Microbiological Examination of West Texas Well Water*  
Richard Roper, Research Mentor: Student Presenter
  - 2007 American Chemistry Society SWRM, Lubbock TX  
*Enzyme Activity: Study of Desaturase Gene in A. hypogaea*  
Paul Grubb and Amy Gage, Research Mentor: Student Poster  
*HPLC Analysis of Peanut Carbohydrates*  
Brett Blackwell, Research Mentor: Student Poster  
*GCMS of Volatiles from A. hypogaea*  
Laura Kester, Research Mentor: Student Poster
  - 2007 West Texas A&M University Student Research Conference, April 15, 2007  
*From Biomass to Biofuel: The Role of Phanerochaete chrysosporium in the  
Production of Ethanol from Cellulose*  
Brad Littlefield, Research Mentor: Student Presenter
  - 2007 LCU Scholar’s Colloquium, March 29-30 2007  
Plenary Speaker: *The ABCs of Establishing an Undergraduate Research Program*  
*Amino Acid Analysis on Peanuts to Determine Their Quality*

## CURRICULUM VITAE

- Kymbra Petty, Research Mentor: Student Presenter  
*Africa: Rich Agriculture, Rich Culture, Rich Opportunities*
- Kolbyn Joy, Research Mentor: Student Presenter  
*From Biomass to Biofuel: The Role of Phanerochaete chrysosporium in the Production of Ethanol from Cellulose*
- Brad Littlefield, Research Mentor: Student Presenter  
*Volatile Quality Determination by Gas Chromatography Mass Spectrometry*
- Laura Kester, Research Mentor: Student Poster  
*Peanut Moisture Study*
- Richard Roper, Research Mentor: Student Poster
- 2006 LCU Scholar's Colloquium, March 30-31 2006  
*Plenary Speaker: Undergraduate Research at Lubbock Christian University: Who, What, Where, When and Why*  
*Nitrogen, Hormones, and a Tastier Peanut*
- Kolbyn Joy, Research Mentor: Student Presenter  
*Connections between Volatiles Produced by Roasted Peanuts and Peanut Allergies*
- Laura Kester, Research Mentor: Student Presenter  
*Desaturase Gene in Arachis hypogaea*
- Amanda Boston, Research Mentor: Student Poster  
*Eurotium repens as a Fungal Threat to Baked Goods and Peanuts*
- Tony Reznicek, Research Mentor: Student Poster

## CONFERENCES

- *Peanut Butter Summit J.M. Smucker Co., Orrville, OH, March 2012*
- *FREC- Flavor Research and Education Center, University of Minnesota, Minneapolis, MN, August 2011*
- *APRES (American Peanut Research and Education Society) 2011 Meeting, San Antonio, TX, July 12-14, 2011*
- *NCUR ( National Conference on Undergraduate Research) 25<sup>th</sup> Annual Meeting, Ithaca, NY, March 31-April 2, 2011*
- *American Peanut Council, Spring Meeting, Washington DC, March 2011*
- *APRES (American Peanut Research and Education Society) 2010 Meeting, Clearwater Beach, July 12-15, 2010*
- *American Peanut Council, Spring Meeting, Washington DC, March 2010*
- *APRES (American Peanut Research and Education Society) 2009 Meeting, Raleigh, North Carolina, July 12-15, 2009*
- *Institute of Food Technology (IFT) Annual Meeting and Food Expo Anaheim, California, June 6-9, 2009*
- *American Peanut Council, Spring Meeting, Washington DC, March 2009*
- *APRES (American Peanut Research and Education Society) 2008 Meeting, Oklahoma City, Oklahoma, July 2008*
- *APRES (American Peanut Research and Education Society) 2007 Meeting, Birmingham, Alabama, July 2007*
- *APRES (American Peanut Research and Education Society) 2006 Meeting, Savannah, Georgia, July 10-14, 2006*

## CURRICULUM VITAE

- Survey trip, Kenya Seed Company, Kenya and Uganda, May 15<sup>th</sup> to June 1, 2006
- American Peanut Council, Peanut Genome Developments, Washington D.C., March 13-15, 2006.
- *TAAHP, Stepping into the 21<sup>st</sup> Century*, Baylor College of Medicine, Houston, February 2-4, 2006.
- *APRES (American Peanut Research and Education Society) 2005 Meeting*, Portsmouth, Virginia, July 11-15, 2005
- *TAAHP*, University of North Texas Health Science Center at Fort Worth, February 3-5, 2005
- *APRES (American Peanut Research and Education Society) 2004 Meeting*, San Antonio, Texas, July 13-16, 2004.
- *TAAHP, The Times Are A Changin'*, University of Texas at Southwestern Medical Center, Dallas, Feb. 12-14, 2004.
- *Geospiza Bioinformatics Conference*, University of North Carolina, Chapel Hill, October 17<sup>th</sup> and 18<sup>th</sup>, 2003.
- *APRES (American Peanut Research and Education Society) 2003 Meeting*, Clearwater, Florida, July 8-11, 2003.
- *TAAHP, The Health Professions: Past Present and Future*, University of Texas at Austin, Feb. 6-8, 2003.
- *Multi-Initiative Dissemination Project: Innovations in Chemical Education*, Tarleton State University, Jan. 31<sup>st</sup> and Feb. 1, 2003.
- *Healing the Healer: Continuing Medical Education Conference*, Lubbock Christian University, Feb. 22, 2002.
- *TAAHP Health Professions Conference*, Texas Tech University, Feb. 7-9, 2002.
- *FASEB Conference on Biological Methylation*, Saxtons River, VT, July 17-23, 1999, **presented poster**.
- *Focus on the Future: Education Conference*, University of Nebraska at Lincoln, May 27-31, 1998.

## STUDENT RESEARCH ASSISTANTS

1. Jonathan Pauwels M.S. Biotechnology (TTU) graduate school  
Research in peanut genomics 2011-2012 while in graduate school at TTU,  
currently employed at UT Southwestern as a research fellow, plans to enter  
MD/PhD program next fall
2. Nicole Kemei B.A. Biology, 2013 Senior LCU
3. Marianne Mullen B.S. Biology, 2014 Junior LCU
4. Haylie Marshall B.A. Biology, 2014 Junior LCU
5. Sara McBride B.S. Biology, 2014 Junior LCU
6. Joshua Turner B.S. NRC, 2014 Junior LCU
7. Nicholas Hemman B.S. Psychology, 2013 no longer employed  
by lab
8. Matthew Johnston B.S. Chemistry, 2014 Junior LCU
9. Jared McDougal B.S. ESS, 2014 Junior LCU, no  
longer employed by lab
10. Austin Privett B.S. Chemistry, 2010 graduate school  
B.S. Math, 2010

## CURRICULUM VITAE

Attending graduate school at TTU, Department of Chemistry and Biochemistry, Ph.D., fellowship and full assistantship support

11. Lauren Richardson      B.S. Biology      stay at home mom
12. Kevan Anasthiou      B.S. Biology      graduate school  
TTU TIEHH (Institute of Toxicology and Environmental Human Health), MS  
Full assistantship support
13. Samuel Hawkins      B.S. Biology      veterinary school  
TTU TIEHH (Institute of Toxicology and Environmental Human Health), MS  
Full assistantship support, plans to attend veterinary school fall 2012
14. Richard Roper      B.S. Biology, 2011      lab supervisor
15. Paul Grubb      B.S. Chemistry, 2009      graduate school
16. Daniel Wisdom      B.A. Biology, 2008      employed
17. Jason Fortmeyer      B.A. Kinesiology, 2009      employed
18. Alicia Hernandez      B.S. Biology, 2009      employed  
U of Arkansas graduate school, Genetic Counseling
19. Ashley Sutton      B.S. Biology, 2008      employed  
M.S. Occupational Therapy fall 2009, UTMB
20. Ronald Patillo      B.S. Chemistry, 2011      employed
21. Lee Reed      B.S. Biology, 2007      graduate school  
Harding U School of Pharmacy, Pharm D. program
22. Amy Gage      B.S. Chemistry, 2008      graduate school  
Medical school, TTUHSC fall 2009
23. Brett Blackwell      B.S. Biology, 2008      graduate school  
TTU TIEHH (Institute of Toxicology and Environmental Human Health),  
Ph.D.
24. Brad Littlefield      B.S. Biology, 2007      employed  
Auburn U School of Engineering, MS, completed August 2010
25. Laura Kester      B.S. Biology, 2007      employed
26. Kymbra Petty      B.S. Chemistry, 2007      employed  
Amarillo Independent School District, teacher
27. Kolbyn Joy      B.S. Plant Science, 2007      graduate school  
Texas A&M U, Genetics, Ph.D.
28. Tony Reznicek      B.A. Biology, 2005      graduate school  
UAG Medical School- Guadalajara Mexico
29. Blake Wattenburger      B.A. Biology, 2004      employed  
RIDEX Lab Support- Field Technician
30. Amanda Boston      B.S. Chemistry, 2006      employed  
TTU Department of Chemistry and Biochemistry, Ph.D. May 2010  
Employed as instructor at TTU, fall 2012, Assistant Professor at LCU
31. Matt Joyner      B.S. Chemistry, 2005      employed  
B.S. Math, 2005  
U of Oklahoma Department of Chemistry and Biochemistry  
Completed May 2010, just hired for new Biochemistry department at  
Pepperdine University in Malibu, CA

## HONORS AND AWARDS

## **CURRICULUM VITAE**

- Faculty Member of the Month, Lubbock Christian University, April, 2002, February, 2003, and September, 2004.
- ARCS Scholar (Achievement Rewards for Collegiate Scientists), Texas Tech University, 2000-2001.
- Outstanding Seminar, Biochemistry Division, Texas Tech University, 1999.
- Dean's Award for Highest GPA of Graduating Students, Lubbock Christian University, 1989.
- Alpha Chi Honor Society, Lubbock Christian University, 1987-1989.

## **PROFESSIONAL ORGANIZATIONS**

- American Peanut Research and Education Society, 2003-Present.
- The Texas Association of Advisors for the Health Professions, 2002-Present.
- American Chemical Society, 2001-Present.  
Secretary ACS South Plains Region, 2005-2006

## **EXTRACURRICULAR ACTIVITIES**

- Consultant J.M. Smucker's Co. 2011- present
- Consultant Birdsong Peanut Co. 2011-present
- Grant Reviewer for The Peanut Foundation/American Peanut Council: 2008-2011
- APRES Board of Directors, 2011-2012
- Grant Reviewer, National Science Foundation; Metabolic Biochemistry Division, 2004- Present.
- Technical Advisor, JLA Global, 2004-2008
- Technical Officer, JLA USA, 2008-October 2009  
Primary responsibility during tenure was to lead company in obtaining ISO certification for 8 laboratories in the US, achieved September 2009  
Responsibilities:
  1. Provide top-level input to company vision for technical excellence in the laboratory and technical service systems, 10 laboratories in the US
  2. Review & approval of policies and procedures related to analytical/technical processes
  3. Ensures resources are provided to accomplish quality work
  4. Supervise process to ensure that personnel are qualified, skilled and trained to operate specific equipment and perform analyses
  5. Identifies preventive actions in management reviews
  6. Leads the investigation and review activities of management reviews
  7. Designates personnel to assist in management review activities
  8. Ensures action items and plans issued are investigated, and identified system changes completed by assigned team members
- VP for Technology and Innovation JLA Global,  
Lead technical projects and innovations for JLA Global and clients, develop NBO

## **UNIVERSITY SERVICE**

- Presentation, LCU Faculty Conferences, August 16, 2011

## **CURRICULUM VITAE**

- Presentation for Leadership Lubbock/ Lubbock Chamber of Commerce, LCU visit on “education day”, April 12<sup>th</sup>, 2011
- Enrollment Management Leadership, 2006-2009
- Honor’s committee, 2008- 2010
- Grant Review Committee- 2006-present
- Scholar’s Colloquium, organizational committee, 2005-2006, 2006-2007, 2007-2008
- College Experience for Hardwick Elementary, March 21<sup>st</sup>, 2006
- “*The Duster*” steering committee, 2006
- Faculty Senate President, May 2005- May 2006
- Presentation for the Associates of Lubbock Christian University, June 4<sup>th</sup>, 2005
- College Experience for Hardwick Elementary, March 8<sup>th</sup>, 2005
- Faculty Senate, 2003-2007
- Admissions Appeals Committee, 2003-2005

## **COMMUNITY SERVICE**

- Hope Lodge Volunteer, Monterey Church of Christ, March 2012-present
- Member of Monterey Church of Christ, Lubbock, TX
- Bible School Teacher, Westhill Church of Christ, Summer 2010
- Cleburne High School Volleyball concessions and fundraising 2008-2009
- Athletic Booster Club Cleburne High School 2007-2010
- Member of Westhill Church of Christ, Cleburne Texas 2008-2010
- VBS Westhill Church of Christ, August 2009
- Coronado High School volleyball booster club 2008
- LCU Habitat for Humanity, 2007 projects
- Bible School Teacher, Greenlawn Church of Christ  
3-6 months per year, elementary division
- Curriculum Development, Greenlawn Church of Christ  
“Jesus is Alive” 1<sup>st</sup> grade curriculum  
“Evolution vs. Creation” 5<sup>th</sup> grade curriculum
- Blood Donor, United Blood Services, 2004-Present