TO: All School of Pharmacy and USDA Personnel  
FROM: Charles D. Hufford, Associate Dean for Research and Graduate Programs  
DATE: August 24, 2012  
SUBJECT: Research News

The following **GRANTS/CONTRACTS** have recently been awarded:

1. **Dr. Allison Bell** (P.I.-Pharmacy Practice) and **Dr. Kim Adcock** (Co-P.I.-Pharmacy Practice). Instructional Innovation Award: Increasing Interprofessional Interactions Among UMMC Students (University of Mississippi Medical Center), $9,800, June 15, 2012-June 14, 2013.

2. **Dr. Sandra Bentley** (P.I.-Pharmacy Practice). Operation Immunization (The University of Southern Mississippi/Corporation for National and Community Service), $2,250, September 1, 2011-August 31, 2012.

3. **Dr. Alice Clark** (P.I.-NCNPR), and **Dr. Ameeta Agarwal** (Co-P.I.-NCNPR). New Drugs for Opportunistic Infections-FY 12-13 (National Institute of Allergy and Infectious Diseases), $392,035, July 1, 2012-June 30, 2013.

4. **Dr. Ashley Ellis** (P.I.-Pharmacy Practice). NACDS Foundation Faculty Scholars Program (National Association of Chain Drug Stores Foundation), $1,000, August 1, 2012-July 31, 2013.


11. **Dr. Seongbong Jo** (P.I.-Pharmaceutics), and **Dr. Robert Doerksen** (Co-PI-Medicinal Chemistry). Computational Modeling-Aided Design, Synthesis and Evaluation of Redox-Sensitive Polymer Nanoparticles for Cancer Targeted Drug Delivery (Mississippi State University/National Science Foundation/Experimental Program to Stimulate Competitive Research), $54,505, September 1, 2011-August 31, 2012.


13. **Dr. Ikhlas Khan** (P.I.-NCNPR), and **Dr. Larry Walker** (Co-P.I.-NCNPR). Discovery and Development of Natural Product-Based Insect Management Compounds for Medical, Veterinary and Urban Concern (United States Department of Agriculture/Agricultural Research Service), $450,850, July 1, 2011-June 30, 2012.

14. **Dr. Ikhlas Khan** (P.I.-NCNPR), and **Dr. Larry Walker** (Co-P.I.-NCNPR). Discovery and Development of Natural Product-Based Insect Management Compounds for Medical, Veterinary and Urban Concern-Amendment 1 (United States Department of Agriculture/Agricultural Research Service), $315,288, July 1, 2011-June 30, 2012.

15. **Dr. Ikhlas Khan** (P.I.-NCNPR) and **Dr. Larry Walker** (Co-P.I.-NCNPR). Science Based Authentication of Dietary Supplements FY11-12 (Food and Drug Administration), $2,093,000, September 15, 2011-August 31, 2012.

16. **Dr. Ikhlas Khan** (P.I.-NCNPR) and **Dr. Larry Walker** (Co-P.I.-NCNPR). Science Based Authentication of Dietary Supplements FY12-13 (Food and Drug Administration), $2,308,000, September 1, 2012-August 31, 2013.


18. **Dr. Xing-Cong Li** (P.I.- NCNPR) and **Dr. Melissa Jacob** (Co-P.I.-NCNPR). Random Shear Shuttle BAC Libraries for Antimicrobial Discovery from Soil Metagenomes (SBIR Phase II) - Year 1 (Lucigen Corporation/National Institutes of Health), $200,000, March 1, 2012-February 28, 2013.


22. **Dr. Dale Nagle** (P.I.-Pharmacognosy), and **Dr. Yu-Dong Zhou** (Co-P.I.-Pharmacognosy). Anticancer Drug Discovery that Targets Tumor Hypoxia-Year 7 Revised (National Institutes of Health), $18,916, June 1, 2011-May 31, 2012.

23. **Dr. Dale Nagle** (P.I.-Pharmacognosy), and **Dr. Yu-Dong Zhou** (Co-P.I.-Pharmacognosy). Anticancer Drug Discovery that Targets Tumor Hypoxia-Year 8 (National Institutes of Health), $262,130, June 1, 2012-May 31, 2013.
24. **Dr. David Pasco** (P.I.-NCNPR), Dr. Colin Jackson (Co-P.I.-Biology), **Dr. Nirmal Pugh** (Co-P.I.-NCNPR), and **Dr. Rita Moraes** (Co-P.I.-NCNPR). Immune Enhancing Echinacea Bacterial Endophytes (National Institutes of Health), $365,132, April 1, 2012-March 31, 2013.


26. **Dr. Michael Repka** (P.I.-Pharmaceutics) and **Dr. Soumyajit Majumdar** (Co-P.I.-Pharmaceutics). Pii Center for Pharmaceutical Technology (University of Mississippi Research Foundation), $50,000, May 1, 2012-April 30, 2013.

27. **Dr. Michael Repka** (P.I.-Pharmaceutics) and **Dr. Soumyajit Majumdar** (Co-P.I.-Pharmaceutics). Fundamentals Studies in the Application of Ashland Aqualon Polymers for Hot-Melt Extrusion for the Oral Delivery of Soluble and Insoluble Drugs from Tablets, Capsules and Oral Film Dosage Forms-Year 1 (Hercules Inc.), $80,000, July 1, 2012-March 31, 2013.


30. **Dr. Leigh Ann Ross** (P.I.-Pharmacy Practice). University of Mississippi, School of Pharmacy and Baptist Memorial Hospital/North Mississippi Agreement FY11-12 (Baptist Memorial Hospital/North Mississippi), $73,530, August 3, 2011-August 3, 2012.

31. **Dr. Leigh Ann Ross** (P.I.-Pharmacy Practice), **Dr. Lauren Bloodworth** (Co-P.I.-Pharmacy Practice), and **Dr. Courtney Davis** (Co-P.I.-Pharmacy Practice). Project IMPACT: Diabetes (American Pharmacists Association Foundation), $25,000, August 31, 2011-December 31, 2013.

32. **Dr. Leigh Ann Ross** (P.I.-Pharmacy Practice), and **Dr. Lauren Bloodworth** (Co-P.I.-Pharmacy Practice). Pharmacy Cardiovascular Risk Reduction Project - Year 2, (Mississippi State Department of Health/Centers for Disease Control and Prevention), $300,000, September 30, 2011-September 29, 2012.


35. **Dr. Leigh Ann Ross** (P.I.-Pharmacy Practice). Clinical Services Support (University of Mississippi Medical Center), $6,000, January 1, 2012-December 31, 2012.


37. **Dr. Justin Sherman** (P.I.-Pharmacy Practice). A “Train-the-Trainers” Initiative to Implement Smoking Cessation Programs (The University of Southern Mississippi/Corporation for National and Community Service), $5,000, September 1, 2011-August 31, 2012.

38. Dr. Gregory Tschumper (P.I.-Chemistry), Dr. Amal Dass, Dr. Nathan Hammer, Dr. Keith Hollis, Dr. Randy Wadkins (Co-P.I.’s-Chemistry and Biochemistry); Dr. Yixin Chen (Co-P.I.-Computer and Information Science); **Dr. Robert Doerkson** (Co-P.I.-Medicinal Chemistry); and Dr. Maxine Harper (Co-P.I.-Center for Educational Research and

40. **Dr. Larry Walker** (P.I.-NCNPR). Discovery and Development of Natural Products for Pharmaceutical and Agrichemical Applications-Amendment No. 2 (United States Department of Agriculture/Agricultural Research Service), $1,506,749, June 1, 2011-May 30, 2012.


42. **Dr. Donna West-Strum** (P.I.-Pharmacy Administration), **Dr. David McCaffrey** (Co-P.I.-Pharmacy Administration), **Dr. Erin Holmes** (Co-P.I.-Pharmacy Administration), **Dr. John Bentley** (Co-P.I.-Pharmacy Administration), and **Dr. Patrick Pace** (Co-P.I.-Pharmacy Administration). Measuring and Improving Primary Medication Non-adherence (National Association of Chain Drug Stores Foundation), $278,958, July 19, 2011-July 31, 2013.

43. **Dr. Kristine Willett** (P.I.-Pharmacology & Environmental Toxicology Research Program). Development of a Fish Model for Epigenetic and Multigenerational Contaminant Effect (National Institutes of Health/National Institute of Environmental Health Sciences), $205,900, August 12, 2011-July 31, 2012.

44. **Dr. Kristine Willett** (P.I.-Pharmacology & Environmental Toxicology Research Program). Development of a Fish Model for Epigenetic and Multigenerational Contaminant Effect-Year 2 (National Institutes of Health/National Institute of Environmental Health Sciences), $178,750, August 1, 2012-July 31, 2013.

45. **Dr. Kristine Willett** (P.I.-Pharmacology). Distribution, Bioaccumulation and Toxicity of Nanosilver Particles in Medaka (*Oryzias latipes*)-Year 3 (U.S. Army Engineering Research and Development Center), $248,000, February 27, 2012-February 26, 2013.

46. **Dr. Yi Yang** (P.I.-Pharmacy Administration). Assessment of Communications-Related Needs for Decision Makers (International Society for Pharmacoeconomics and Outcomes Research), $7,237, June 1, 2012-August 31, 2012.

47. **Dr. Jordan Zjawiony** (P.I.-Pharmacognosy). Diterpenes as Selective Kappa Opioid Receptor Agents (The University of North Carolina at Chapel Hill/National Institute on Drug Abuse), $70,523, February 15, 2012-January 31, 2013.

48. **Dr. Jordan Zjawiony** (P.I.-Pharmacognosy). Psychopharmacology of Plants and Their Metabolites Used as Marijuana Substitutes-Year 2 (National Institutes of Health), $71,500, June 1, 2012-May 31, 2013.

The following PUBLICATIONS have appeared:


Receptors and Cannabinoid Receptors from the Fungus Eurotium repens” *Journal of Natural Products*, **74** (2011) 1636-1639.


50. Yulin Ren, Chunhua Yuan, Hee-byung Chai, Yuanqing Ding, Xing-Cong Li, Danee Ferreira, and A. Douglas Kinghorn. “Absolute Configuration of (–)-Gambogenic Acid, an Antitumor Agent”, *Journal of Natural Products*, 74 (2011) 460-463.


61. Terri L. Warholak, David A. Holdford, Donna West, Danielle L. DeBake, John P. Bentley, Daniel C. Malone, and John E. Murphy. “Perspectives on Educating Pharmacy Students


**TECHNOLOGY TRANSFER** transactions:

*In the interest of protecting confidential information, the names and titles associated with School of Pharmacy invention disclosures and patent applications will no longer be published until after a patent has issued.*

Research Disclosures Filed July 1, 2011 to June 30, 2012: 5
U. S. Patent Applications Pending: 19
Recent U. S. Patents Granted: 1

**UM 1971 Pterostilbene as a New Agonist for the Peroxisome Proliferator-Activated Alpha Isoform**
US Patent number 8,133,917, issued 3/13/2012
Inventor: Dennis Feller et al
The following **SPECIAL ANNOUNCEMENTS** are also listed:

- Christina Coleman (Pharmacognosy) and Gang Fu (Medicinal Chemistry) were honored with Graduate Achievement Awards for 2012 during School of Pharmacy Commencement activities in May.

Please continue to send me important research and graduate information so that I might share it with your faculty colleagues.

cc: Ms. Euphiazene Gray, Office of Research