



The University of Mississippi

Interoffice Memorandum

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TO: All School of Pharmacy Personnel

FROM: Charles D. Hufford, Associate Dean for Research and Graduate Programs

DATE: July 28, 2004

SUBJECT: Research News (# 2)

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

1. **Dr. Bonnie Avery** (P.I. – Pharmaceuticals) – The Determination of a Correlation Between Near Infrared Spectroscopy and Karl Fischer for Moisture Analysis Effect of Excipients and Active on NIR of Water (Novartis Pharmaceutical Corp.), \$15,500.00 – May 15, 2004-August 15, 2004.
2. **Dr. Joseph Byrd** (P.I. – Pharmacy Practice) – Agreement for Teaching, Patient Care and Clinical Research Services (University of Mississippi Medical Center Department of Pediatrics), \$22,008.00 – July 1, 2004-June 30, 2005.
3. **Dr. Ikhlas Khan** (P.I. – RIPS/NCNPR) – Phytochemical Probes/Substrates Network (National Science Foundation), \$17,500.00 – May 1, 2004-July 31, 2004.
4. **Dr. Dale Nagle** (P.I. – Pharmacognosy); **Dr. Yu-Dong Zhou** (Co-P.I. – RIPS/NCNPR); **Dr. Xing-Cong Li** (Co-P.I. – RIPS/NCNPR); and **Dr. Ameeta Agarwal** (Co-P.I. – RIPS/NCNPR) – Anticancer Drug Discovery that Targets Tumor Hypoxia (National Institutes of Health/National Cancer Institute), \$264,758.00 – April 1, 2004-March 31, 2005.
5. **Dr. Dhammika Nanayakkara** (P.I. – RIPS/NCNPR) and **Dr. Babu Tekwani** (Co-P.I. – RIPS/NCNPR) – New Antimalarials from Plant-Pathogenic Fungi (National Institutes of Health), \$211,945.00 – June 1, 2004-May 31, 2005.
6. **Dr. Leigh Ann Ramsey** (P.I. – Pharmacy Practice) – Pharmaceutical Care Lipid Outcome (Astra Zeneca LP), \$10,000.00 – July 1, 2004-June 30, 2005.
7. **Dr. Michael Repka** (P.I. – Pharmaceuticals) and **Dr. Steven Stodghill** (Co-P.I. – Pharmaceuticals) – Antifungal Denture Adhesive Film for Oral and Pharyngeal Candidiasis (National Institutes of Health/Small Business Innovation Research/MIKKUR, Inc.), \$39,240.00 – March 1, 2004-February 28, 2005.

8. **Dr. Marc Slattery** (P.I. – Pharmacognosy) – Chemical Mixtures: Consequences of WNV Eradication on Water Quality (Mississippi State University/U.S. Geological Survey), \$16,540.00 – March 1, 2003 (Modified May, 2004).
9. **Dr. Marc Slattery** (P.I. – Pharmacognosy) and Dr. Robin Buchannon (Co-P.I. – Office of Research) – The National Institute for Undersea Science and Technology (National Oceanic and Atmospheric Administration), \$970,000.00 – July 1, 2004-September 30, 2005.
10. **Dr. Larry Walker** (P.I. – RIPS/NCNPR), **Dr. Walter Chambliss** (Co-P.I. – RIPS/NCNPR) and **Dr. Marc Slattery** (Co-P.I. – Pharmacognosy) – New Drugs from Marine Natural Resources of Jamaican Reefs (National Institutes of Health/International Cooperative Biodiversity Groups), \$181,947.00 – May 1, 2004-April 30, 2005.
11. **Dr. Sean Wilson** (P.I. – Pharmacology) – Asthma and EC Coupling in Airway Smooth Muscle Cells (National Institutes of Health/National Institute of Allergy and Infectious Diseases), \$72,500.00 – August 1, 2004-July 30, 2005.
12. **Dr. Sean Wilson** (P.I. – Pharmacology) – Asthma and EC Coupling in Airway Smooth Muscle Cells (National Institutes of Health/National Institute of Allergy and Infectious Diseases), \$39,212.00 – August 1, 2004-July 30, 2005.

The following **PUBLICATIONS** have appeared:

1. **Srinivas Annavarapu**, C.M. Foran, P. Gardinali, C. Metzger and **Kristi Willett** – “Comparison of Two Sites in Mobile Bay Using *In Vivo* Biomarkers in Largemouth Bass, Sediment Bioassays, and Sediment Contaminant Analysis”, *Archives of Environmental Contamination and Toxicology*, **46**, pp. 502-510, 2004.
2. S.J. Barud, **Deborah King**, R.R. Reed, K.G. Harkins, M.R. Wofford and **Sara Noble** – “Screening for Depression and Anxiety in a Hypertension Specialty Clinic”, *Am Jour of Hypertension*, **17**, 2004.
3. E. Bedir, **Hemant Lata**, B. Schaneberg, **Ikhlas Khan** and **Rita Moraes** – “*In vitro* Plant Regeneration from Leaf-Derived Callus in Goldenseal (*Hydrastis Canadensis*)”, *Acta Horticultural*, pp. 277-281, 2004.
4. **John Bentley** and P.G. Thacker – “The influence of risk and monetary payment on the research participation decision making process”, *J. Med. Ethics*, **30**, pp. 293-298, 2004.
5. H. Butala, C. Metzger, **John Rimoldi** and **Kristine Willett** – “Microsomal estrogen metabolism in channel catfish”, *Marine Environmental Research*, **58**, pp. 489-494, 2004.
6. C.L. Causey and **Deborah King** – “Treatment Options in the Management of Migraine: Beyond Traditional Therapies”, *Bureau of Pharmaceutical Services Continuing Education*, July 2003.
7. B.M. Davy, **Thomas Harrell**, J.L. Stewart and **Deborah King** – “Body Weight Status, Dietary Habits and Physical Activity Level of Middle School-Aged Children in Rural Mississippi”, *Southern Medical Journal*, **97**, pp. 571-577, June 2004.
8. C.M. Foran, **James Weston**, **Marc Slattery**, B.W. Brooks and D.B. Huggett – “Reproductive Assessment of Japanese Medaka (*Oryzias latipes*) Following a Four-Week Fluoxetine (SSRI) Exposure”, *Archives of Environmental Contamination and Toxicology*, **46**, pp. 511-517, 2004.

9. **Thomas Harrell**, B.M. Davy, **Deborah King** and J.L. Stewart – “Assessment of Metabolic Syndrome Risk Factors in Rural Mississippi Middle School-Aged Children”, *Obesity Research*, 2003.
10. **Thomas Harrell**, **Deborah King**, M.R. Wofford, **Sara Noble** and D.W. Jones – “Follow-up Assessment of Cardiovascular Risk Factor Awareness in Rural Mississippi High School Students”, *Am Jour of Hypertension*, 2004.
11. T.W. Hodges, **Chowdhury Hossain**, **Yong-Pil Kim**, **Yu-Dong Zhou** and **Dale Nagle** – “Molecular-Targeted Antitumor Agents: The *Saururus cernuus* Dineolignans Manassantin B and 4-O-Demethylmanassantin Are Potent Inhibitors of Hypoxia-Activated HIF-1”, *Journal of Natural Products*, **67**, pp. 767-771, 2004.
12. N.N. Horton, **Thomas Harrell** and **Deborah King** – “Perceptions of Weight and Its Importance in Maintaining Wellness in a Population of African American College Students”, *Obesity Research*, 2003.
13. P.N. Johnson, **Deborah King**, C.M. Adair and M.R. Wofford – “Participant Benefits through Hypertension Clinical Trials”, *Am Jour of Hypertension*, 2004.
14. D.W. Jones, **Deborah King** and M.R. Wofford – Hypertension Pearls, Philadelphia: Hanley & Belfus, Inc, 2004.
15. **Deborah King**, A.J. Wilburn, M.R. Wofford, D.W. Jones, **Thomas Harrell** and B. Lindley – “Cognitive impairment associated with atorvastatin and simvastatin”, *Pharmacotherapy*, **23**, pp. 163-167, 2003.
16. **Deborah King**, J.R. Thomas, **Marvin Davis** and **Michael Vinson** – “New Drug Approvals of 2003 – Part 2”, Bureau of Pharmaceutical Services Continuing Education, pp. 1-42, June 2004.
17. **Deborah King**, J.R. Thomas, **Marvin Davis** and **Michael Vinson** – “New Drug Approvals of 2003 – Part 1”, *Bureau of Pharmaceutical Services Continuing Education*, February 2004.
18. **Deborah King**, S.J. Barud, M.R. Wofford, **Sara Noble**, T.M. Fontenot, R.R. Reed, K.G. Harkins, J.L. Stewart and S.B. Wyatt – “Improving Medication Adherence in a Southeastern Hypertension Clinic using AdhereRx”, *Am Jour of Hypertension*, 2004.
19. **Deborah King**, **Thomas Harrell**, R.L. Hester, P.N. Johnson, M.R. Wofford and **Sara Noble** – “Cardiovascular Disease Education and Community Awareness: Training High School Students as Health Promoters”, *Am Jour of Hypertension*, 2004.
20. **Deborah King**, **Thomas Harrell**, P.N. Johnson, M.R. Wofford and **Sara Noble** – “Cardiovascular Health Awareness among Rural Mississippi High School Students: School-wide versus High Achievers”, *Am Jour of Hypertension*, 2004.
21. **Deborah King**, **Thomas Harrell**, M.R. Wofford and D.W. Jones – “Assessment of Cardiovascular Risk Factors in Rural Mississippi: The Morton Have-A-Heart Project”, *Obesity Research*, 2003.
22. **Deborah King**, P.N. Johnson, S.D. Rice and M.R. Wofford – “Assessing Health Awareness in Patients with Hypertension Compared to that of Fitness Center Patrons”, *Am Jour of Hypertension*, 2004.
23. **Deborah King**, **Sara Noble**, J.L. Stewart, S.J. Barud, S. Sims, M Cannon, S.E. Greene, C.C. Capers, W.H. Replogle and S. Pittman – “Hair Care and Health Care: CVD Awareness, Concerns, and Issues among Women”, *Am Jour of Hypertension*, 2004.

24. **Deborah King**, S.D. Rice, M.R. Wofford, M. Ingram and S.M. Parham – “Cardiovascular Health Awareness in Fitness Centers”, *Am Jour of Hypertension*, 2004.
25. **Deborah King**, J.R. Thomas, **Marvin Davis**, **Michael Vinson** and **Thomas Harrell** – “The Handbook of New Drug Introductions: NMEs for 2003”, *Bureau of Pharmaceutical Services Continuing Education*, **25**, pp. 1-56, May 2004.
26. R.E. Lamb and **Deborah King** – “Left Ventricular Diastolic Dysfunction: Risks, Identification, and Treatment”, *Prog Cardiovasc Nurs*, **19**, pp. 31-36, Winter 2004.
27. **Hemant Lata**, E. Bedir, **Rita Moraes** and Z. Andrade – “Mass Propagation of *Echinacea Angustifolia*: A Protocol Refinement Using Shoot Encapsulation and Temporary Immersion Liquid System”, *Acta Horticultural*, pp. 409-414, 2004.
28. **Xing-Cong Li**, **Daneel Ferreira**, **Melissa Jacob**, **Qifeng Zhang**, **Shabana Khan**, **Hala ElSohly**, **Dale Nagle**, **Troy Smillie**, **Ikhlas Khan**, **Larry Walker** and **Alice Clark** – “Antifungal Cyclopentenediones from *Piper coruscans*”, *J. Am. Chem. Soc.*, **126**, pp. 6872-6873, 2004.
29. A. Mai, I. Cerbara, S. Valente, S. Massa, **Larry Walker** and **Babu Tekwani** – “Antimalarial and Antileishmanial Activities of Aroyl-Pyrrolyl-Hydroxyamides, a New Class of Histone Deacetylase Inhibitors”, *Antimicrobial Agents & Chemotherapy*, **48**, pp. 1435-1436, 2004.
30. M. Maqbool, K.E. Cushman, P. Gerard, E. Bedir, **Hemant Lata** and **Rita Moraes** – “Podophyllotoxin content in leaves of eastern red cedar (*Juniperus virginiana*)”, North Mississippi Research & Extension Center, *Acta Horticulturae*, 2004.
31. M. Maqbool, K.E. Cushman, **Rita Moraes** and P. Gerard – “Overcoming Dormancy of Mayapple Rhizome Segments with Low Temperature Exposure”, *Hort. Science*, **39**, pp. 307-311, 2004.
32. A. Mayence, J.J. Vanden Eynde, L. LeCour, Jr, **Larry Walker**, **Babu Tekwani** and T.L. Huang – “Piperazine-linked bisbenzamidines: a novel class of antileishmanial agents”, *European Journal of Medicinal Chemistry*, **39**, pp. 547-553, 2004.
33. **Rita Moraes**, Z. De Andrade, E. Bedir, **Franck Dayan**, **Hemant Lata**, **Ikhlas Khan** and A.M.S. Pereira – “Arbuscular mycorrhiza improves acclimatization and increases lignan content of micropropagated mayapple (*Podophyllum pelatum L.*)”, *Plant Science*, **166**, pp. 23-29, 2004.
34. **Muhammad Ilias**, E. Bedir, **Shabana Khan**, **Babu Tekwani**, **Ikhlas Khan**, **Satoshi Takamatsu**, J. Pelletier and **Larry Walker** – “A New Antimalarial Quassinoid from *Simaba orinocensis*”, *Journal of Natural Products*, **67**, pp. 772-777, 2004.
35. **Dale Nagle**, **Yu-Dong Zhou**, **Flor Mora**, **Kaleem Mohammed**, and **Yong-Pil Kim** – “Mechanism Targeted Discovery of Antitumor Marine Natural Products”, *Current Medicinal Chemistry*, **11**, pp. 1725-1756, 2004.
36. R.R. Reed, **Deborah King**, M.R. Wofford, C.M. Adair, K.G. Harkins, J.L. Stewart, S.B. Wyatt and **Thomas Harrell** – “Variations in Blood Pressure Control Throughout the Dosing Interval with Morning versus Evening Dosing on Once-Daily Antihypertensive Medications”, *Am Jour of Hypertension*, 2004.
37. J.L. Stewart, M.R. Wofford, **Deborah King** and D.W. Jones – “Does it matter how we lower blood pressure?”, *Am J Med Sci.*, **326**, pp. 333-335, 2003.

38. J.L. Stewart, K.G. Harkins, **Deborah King** and M.R. Wofford – “The Effects of Extended Duty Hours on Ambulatory Blood Pressures in Internal Medicine, Pediatric, and Med-Peds Residents”, *Am Jour of Hypertension*, 2004.
39. J.L. Stewart, **Thomas Harrell**, **Deborah King** and M.R. Wofford – “Increased Rates of Cardiovascular Risk Factors in Rural Mississippi School Children”, *Am Jour of Hypertension*, 2004.
40. **Natascha Techen**, S.L. Crockett, **Ikhlas Khan** and B.E. Scheffler – “Authentication of Medicinal Plants Using Molecular Biology Techniques to Compliment Conventional Methods”, *Current Medicinal Chemistry*, **11**, pp. 1391-1401, 2004.
41. J.R. Thomas and **Deborah King** – “Acid Suppression and Gastrointestinal Disorders: The Role of Proton Pump Inhibitors”, *Bureau of Pharmaceutical Services Continuing Education*, August 2003.
42. **Sri Venkata Tumuluri**, **Suneela Prodduturi**, M.M. Crowley, **Steven Stodghill**, J.W. McGinity, **Michael Repka** and **Bonnie Avery** – “The Use of Near-Infrared Spectroscopy for the Quantitaion of a Drug in Hot-Melt Extruded Films”, *Drug Development and Industrial Pharmacy*, **30**, pp. 505-511, 2004.
43. A.J. Wilburn, **Deborah King**, J. Glisson, R.W. Rockhold and M.R. Wofford – “The natural treatment of hypertension”, *J Clin Hypertens*, **6**, pp. 242-248, May 2004.
44. **Kristine Willett** and **Alicia Bouldin** – “Instructional Design and Assessment – Development and Assessment of an Online Elective Toxicology Course”, *American Journal of Pharmaceutical Education*, **68**, 2004.
45. **Kristine Willett**, R.A. Roth and **Larry Walker** – “Workshop Overview: Hepatotoxicity Assessment for Botanical Dietary Supplements”, *Toxicological Sciences*, **79**, pp. 4-9, 2004.
46. R. Worthy, **Deborah King** and **Thomas Harrell** – “Morton Middle School Fifth Grade versus Forest Middle School Fifth Grade: Which School has the Higher Blood Pressures, Height Percentiles, and BMI Percentiles?”, *Ninth Annual SHRP Research*, 2004.
47. S.B. Wyatt, E.R. Walker, M.H. Connor, S. Heard, **Deborah King**, T. Howard, J. Knight and W. Magers – “A Statewide Plan for Reducing Cardiovascular Disease and Stroke”, *Am Jour of Hypertension*, 2004.
48. **Luling Zhang**, **Ikhlas Khan**, **Kristine Willett** and C.M. Foran – “*In vivo* Effects of Black Cohosh and Genistein on Estrogenic Activity and Lipid Peroxidation in Japanese Medaka (*Oryzias latipes*)”, *Journal of Herbal Pharmacotherapy*, **3**, pp. 33-50, 2003.

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.)

Invention Disclosures Filed in 2004:	6
Patent Applications Pending:	31
Recent Patents Granted:	0

The following **SPECIAL ANNOUNCEMENTS** are also listed:

- **Dr. Hemant Lata** (NCNPR) was the invited speaker for EMBRAPA, Brazilian Ministry of Agriculture, July 8, 2004. **Dr. Lata** also was featured for her research on *Podophyllum peltatum* during a broadcast on Mississippi Public Broadcasting Channel, June 8, 2004. This was a collaboration of the Agronomy laboratory at NCNPR and Mississippi State University.
- Two University of Mississippi graduate students have been honored by the American Society of Pharmacognosy and will present their work at the 2004 International Congress on Natural Products Research in Phoenix, Arizona:
Kaleem A. Mohammed was awarded the 2004 Graduate Student Award, which is presented to one student each year and consists of a cash award plus travel expenses to the annual meeting. Mr. Mohammed's research project is "Laurenditerpenol, a New Diterpene from the Tropical Marine Alga *Laurencia intricata* Potently Inhibits HIF-1 Activation-Mediated Hypoxic Signaling in Breast Tumor Cells."
Flor Mora received an ASP Travel Award to attend the annual meeting and allow her to present her work: "Physalins Activate Peroxisome Proliferator-Activated Receptor-(PPAR) in Breast Tumor Cells." Mr. Mohammed and Ms. Mora are Pharmacognosy Graduate Students working on Ph.D. degrees under the supervision of **Dr. Dale Nagle**.
- The University of Mississippi chapter of Sigma Xi, the Scientific Research Society, hosted a Student Research Poster Symposium in April 2004. Two Pharmacology graduate students were chosen as award winners:
Heather Webb – Health Science division and **Amit Chaudhary** – Biological Sciences division. Each winner received a plaque recognizing their "Best in Category" award, as well as a one-year membership in the national Sigma Xi organization, sponsored by the local chapter. Ms. Webb is working on a Ph.D. degree under the supervision of **Dr. Anthony Verlangieri**. Mr. Chaudhary is working on a Ph.D. degree under the supervision of **Dr. Kristine Willett**.

Please continue to send me important research and graduate information so that I might share it with your faculty colleagues. **THIS INFORMATION IS NOW BEING POSTED ON THE SCHOOL OF PHARMACY WEB PAGE!** Thank you.

cc: Dean Barbara G. Wells
Ms. Dabney Weems