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: **June 13, 2005**

SUBJECT: **Research News (#2)**

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

1. **Dr. Kim Adcock** (P.I. – Pharmacy Practice) – A Study of the Pharmacokinetics, Safety and Tolerability of Intravenous Doses of Pantoprazole in Hospitalized Pediatric Patients (Wyeth Pharmaceuticals, Inc.), $25,300.80 – July 1, 2004-June 30, 2005.
2. **Dr. Joseph Byrd** (P.I. – Pharmacy Practice) – Psychopharmacological Services Agreement (Mississippi State Hospital), $24,000.00 – May 1, 2005-April 30, 2006.
3. **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, 2005-June 30, 2006.
4. **Dr. John Cleary** (P.I. – Pharmacy Practice) – ZoXen (ZoXen), $4,000.00 – October 20, 2004-December 31, 2005.
5. **Dr. Brian Crabtree** (P.I. – Pharmacy Practice) and **Dr. Victor Dostrow** (Co-P.I. – Pharmacy Practice) – Outcomes Assessment of an Antipsychotic Drug Algorithm at Mississippi State Hospital (Pfizer), $150,000.00 – May 19, 2005-May 18, 2006.
6. **Dr. Robert Doerksen** (P.I. – Medicinal Chemistry) – Fellow of University of Mississippi's 2004-2005 Faculty Research Program, $8,000.00.
7. **Dr. Robert Doerksen** (P.I. – Medicinal Chemistry) – Compiler for New Linux Computer Cluster (University of Mississippi Partners Program), $910.00 – November 2004-November 2005.
8. **Dr. Mahmoud ElSohly** (P.I. – NCNPR) and **Dr. Ikhlas Khan** (Co-P.I. – NCNPR) – Production, Analysis and Distribution of Cannabis, Marijuana Cigarettes and Related Materials (National Institute on Drug Abuse/NIH), $1,258,015.00 – March 16, 2005-March 15, 2006.
9. **Dr. Daneel Ferreira** (P.I. – Pharmacognosy) – Fractionation and Identification of Pomegranate Metabolites (Stewart & Lynda Resnick Revocable Trust), $68,361.00 – March 23, 2005-March 22, 2006.

10. **Dr. Mary Haasch** (P.I. – RIPS/ETRP) – Acute Toxicity of Water-Soluble Fullerene: Effect of Weathering (Mississippi Functional Genomics Network/NIH), $1,500.00.00 – June 1, 2005-August 12, 2005.
11. **Dr. Mark Hamann** (P.I. – Pharmacognosy) and **Dr. Larry Walker** (Co-P.I. – NCNPR) – The Preclinical Development of the Manzamine Alkaloids as Treatment of Malaria (Medicines for Malaria Venture <MMV>), $279,627.83 – December 1, 2004-May 30, 2005.
12. **Dr. Mark Hamann** (P.I. – Pharmacognosy) and Dr. Sherief Khalifa (Co-P.I. – formerly Pharmacognosy) – A Biotechnological Approach Towards Drug Discovery from the Red Sea Sponge *Latrunculia* Species – USDA/Farm and Foreign Agricultural Service, $29,999.00 – September 1, 2004-August 31, 2006.
13. **Dr. Mark Hamann** (P.I. – Pharmacognosy), **Dr. Larry Walker** (Co-P.I. – NCNPR) and **Dr. Mitchell Avery** (Co-P.I. – Medicinal Chemistry) – AntiAIDS Agents from Marine Organisms (NIH/National Institute of Allergy and Infectious Diseases), $354,835.00 – June 1, 2005-May 31, 2006.
14. **Dr. Rae Matsumoto** (P.I. – Pharmacology) – Cocaine, Sigma Receptors and Fra-2 (National Institute on Drug Abuse), $216,000.00 – March 1, 2005-February 28, 2006.
15. **Dr. Michael Repka** (P.I. – Pharmaceutics) and **Dr. Steven Stodghill** (Co-P.I. – Pharmaceutics) – Transmucosal Matrix Patch System for Delivery of Promethazine HCI (Wraser Pharmaceuticals), $55,980.00 – February 4, 2005-August 3, 2005.
16. **Dr. Marc Slattery** (P.I. – Pharmacognosy) and Dr. Robin Buchannon (Co-P.I. – Office of Research) – Phase I Proposal for The National Institute for Undersea Science and Technology – OBCR Extremophile Cruise to Kermadec Arc, New Zealand (NOAA Undersea Research), $428,917.00 – February 1, 2005-September 30, 2006.
17. **Dr. Robert Speth** (P.I. – Pharmacology) – REO Program: Summer Research Opportunities for Undergraduates (Mississippi Functional Genomics/NIH), $1,500.00 – May 16, 2005-August 11, 2005.
18. **Dr. Larry Walker** (P.I. – NCNPR) – Development of Natural Products from Plants and Microbes for Replacement of Synthetic Pesticides (USDA, Agricultural Research Service), $2,356,979.00 – November 21, 2001-October 31, 2006.
19. **Dr. Larry Walker** (P.I. – NCNPR) – Natural Products Acting via New Anti-Fungal Targets (Georgetown University/NIH/NCI), $75,000.00 – May 16, 2000-April 30, 2005.
20. **Dr. Noel Wilkin** (P.I. – Pharmacy Administration) – Grantmanship for Community Pharmacy (National Community Pharmacists Association), $2,712.00 – October 1, 2004-September 30, 2005.
21. **Dr. Kristine Willett** (P.I. – Pharmacology) – Roles of CYP1 & 19 in Fundulus Steroids & PAH Metabolism (National Institute of Environmental Health Sciences), $236,951.00 (Year 2) – May 1, 2005-April 30, 2006.
22. **Dr. Sean Wilson** (P.I. – Pharmacology) – REO Program/MFGN – Kara Creel (Mississippi Functional Genomics Network/NIH), $1,500.00 – May 16, 2005-July 30, 2005.
23. **Dr. Sean Wilson** (P.I. – Pharmacology) – REO Program/MFGN – Katy Anna Grisham (Mississippi Functional Genomics Network/NIH), $1,500.00 – May 16, 2005-July 30, 2005.

The following **PUBLICATIONS** have appeared:

1. L. Bourel-Bonnet, **Karumanchi Rao, Mark Hamann** and A. Ganesan – "Solid-Phase Total Synthesis of Kahalalide A and Related Analogues", *J. Med. Chem.*, **48**, pp. 1330-1335, 2005.
2. C.M. Brock, **Deborah King, Kristopher Harrell**, W.B. White, N. Gahmy and J.L. Stewart – "Cardiovascular Health and Awareness in High Risk College Students", *American Journal of Hypertension*, **18**, p. 141A, 2005.

3. C.M. Brock, **Deborah King,** M.R. Wofford and **Kristopher Harrell** – "Exercise, Insulin Resistance and Hypertension: A Complex Relationship", *Metabolic Syndrome and Related Disorders*, **3**, pp. 8-12, 2005.
4. **Asok Dasmahapatra, Xueqing Wang** and **Mary Haasch** – "Expression of Adh8 mRNA is Developmentally Regulated in Japanese Medaka (*Oryzias latipes*)", *Comparative Biochemistry and Physiology*, **140**, pp. 657-664, 2005.
5. **Robert Doerksen**, V.J. Steevens and A.J. Thakkar – "Are Polarizabilities Useful as Aromaticity Indices? Tests on Azines, Azoles, Oxazoles and Thiazoles", *Journal of Computational Methods in Sciences and Engineering*, **4**, pp. 427-438, 2004 & also appears in *Computational Aspects of Electric Polarizability Calculations: Atoms, Molecules and Clusters*, 2004.
6. **Mark Hamann** – "Technology Evaluation: Kahalalide F, PharmaMar", *Current Opinion in Molecular Therapies*, **6**, pp. 657-665, 2004.
7. **Kristopher Harrell**, **Deborah King,** W. White, J.L. Wheat, T.L. Henry and J.T. Dear – "Awareness and Assessment of Health Numbers in Rural versus Urban Mississippi High School Students", *Obesity Research*, **12**, November 2004.
8. **Carol Hope,** J. Wu, W. Tu, J. Young and M. Murray – "Ability of Medication Adherence, Knowledge and Skills to Model Emergency Department Visits in Older Adults with Heart Failure", *American Journal of Health-System Pharmacy*, **61**, pp. 2043-2049, 2004.
9. **Carol Hope,** J. Wu, W. Tu, J. Young and M. Murray – "Barriers to Adherence in Elderly Heart Failure Patients", *Drug Information Journal*, **38**, pp. 331-341 2004 (published as Continuing Education for Physicians).
10. Hui-ming Hua, **Jiangnan Peng**, F.R. Fronczek, M. Kelly and **Mark Hamann** – "Crystallographic and NMR Studies of Antiinfective Tricyclic Guanidine Alkaloids from the Sponge *Monanchora unguifera*", *Bioorganic & Medicinal Chemistry*, **12**, pp. 6461-6464, 2004.
11. A.C. Illapakurthy, **Christy Wyandt** and **Steven Stodghill** – "Isotheramal Titration Calorimetry Method for Determination of Cyclodextrin Complexation Thermodynamics Between Artemisinin and Naproxen Under Varying Environmental Conditions", *European Journal of Pharmaceutics and Biopharmaceutics*, **59**, pp. 325-332, 2005.
12. **Melissa Jacob** and **Larry Walker** – "Natural Products and Antifungal Drug Discovery", *Methods in Molecular Medicine*, **118**, pp. 83-109, 2005.
13. **Noer Kasanah** and **Mark Hamann** – "Development of Antibiotics and the Future of Marine Microorganisms to Stem the Tide of Antibiotic Resistance", *Current Opinion in Investigational Drugs*, **5**, pp. 827-837, 2004.
14. **Noer Kasanah, Karumanchi Rao,** M. Yousaf, **David Wedge**, R.T. Hill and **Mark Hamann** – "Biotransformation Studies of the Manzamine Alkaloid", *Mar. Biotechnol.*, **6**, pp. 268-272, 2004.
15. **Deborah King** – "Expert Perspective on Accurately Assessing Hypertension", *PriMed Online CME*, October 2004 <www.pri-med.com>.
16. **Deborah King, Marvin Davis, Michael Vinson**, C.M. Brock, A.L. Doner, S.D. Rice and P.A. Williams – "New Drug Approvals of 2004 – Part 1", *Bureau of Pharmaceutical Services Continuing Education*, pp. 1-46, February 2005 <www.rxed.org/umce>.
17. **Deborah King, Kristopher Harrell**, **Marvin Davis** and **Michael Vinson** – "Handbook of New Drug Introductions: NMEs for 2004", *Bureau of Pharmaceutical Services*, **26**, pp. 1-97, May 2005.
18. **Deborah King, Kristopher Harrell**, J.T. Dear, **Beth Hood, Sara Noble, Sharon Dickey** and B. Batson – "Provider Awareness of Cardiovascular Complications Associated with Non-Steroidal Anti-Inflammatory Therapy", *American Journal of Hypertension*, **18**, p. 145A, 2005.

19. **Deborah King,** J.L. Wheat, **Kristopher Harrell**, W. White, S.J. Barud, T.F. Jacobs and J.T. Dear – "Perceptions of Weight and Influence on Cardiovascular Wellness in Minority High School Students", *Obesity Research*, **12**, November 2004.
20. **Pennaka Hari Kishore**, M. Yousaf, **Karumanchi Rao**, M. Kelly, R.T. Hill, S.G. Franzblau and **Mark Hamann** – "Solving Limited Supplies of Marine Pharmaceuticals Through the Rational and High-Throughput Modification of High-Yielding Marine Natural Product Scaffolds", *Mar. Biotechnol.*, **6**, pp. 273-280, 2004.
21. R.E. Lamb and **Deborah King** – "Cardiovascular Implications of Thiazolidinedione Therapy", *Prog. Cardiovascular Nurs.*, **19**, pp. 116-122, Summer 2004.
22. M.S. Levi, M.O.F. Khan and **Ronald Borne** – "Solution-Phase Parallel Synthesis of N-6-Disubstituted Isoquinuclidines as Ibogaine Analogs", *Letters in Drug Design and Discovery*, **2**, pp. 51-54, 2005.
23. R.C. Long, **Deborah King**, M.R. Wofford, K.G. Harkins and J.L. Stewart –"Hepatocellular Necrosis Associated with Labetalol", *American Journal of Hypertension*, **18**, p. 67A, 2005.
24. **Guoyi Ma, Shabana Khan,** Jamal Mustafa, **Larry Walker** and **Ikhlas Khan** – "Anticancer Activity and Possible Mode of Action of 4-O-Podophyllotoxinyl 12-Hydroxyl-octadec-Z-9-enoate", *Lipids*, **40**, pp. 303-308, 2005.
25. **Ilias Muhammad, Jianping Zhao** and **Ikhlas Khan** – "Maca (*Lepidium meyenii*)", Encyclopedia of Dietary Supplements, pp. 435-443, 2005.
26. J. Mustafa, **Shabana Khan, Guoyi Ma, Larry Walker** and **Ikhlas Khan** – "Synthesis, Spectroscopic, and Biological Studies of Novel Estolides Derived from Anticancer Active 4-O-Podophyllotoxinyl 12-Hydroxyl-octadec-Z-9-enoate", *Lipids*, **39**, pp. 659-666, 2004.
27. **Marcelo Nieto, Ashok Philip**, J.H. Poupaert and **Christopher McCurdy** – "Solution-Phase Parallel Synthesis of Spirohydantoins", *J. Comb. Chem.*, **7**, pp. 258-263, 2005.
28. A.J. Perkins, K. Kroenke, J. Unutzer, W. Katon, J.W. Williams, **Carol Hope** and C.M. Callahan – "Measuring Comorbidity: Predictive Validity of Common Measures in a Cohort of Vulnerable Older Adults", *Journal of Clinical Epidemiology*, **57**, pp. 1040-1048, 2004.
29. **Ashok Philip**, J.H. Poupaert and **Christopher McCurdy** – "Opioid Receptor-Like 1 (ORL1) Molecular 'Road Map' to Understanding Ligand Interaction and Selectivity", *Current Topics in Medicinal Chemistry*, **5**, pp. 325-340, 2005.
30. **Michael Repka,** S. Prodduturi, **Melissa Jacob, Shabana Khan** and **Steven Stodghill** – "Formulation and Characterization of Hot-Melt Extruded Antifungal Denture Adhesive Films", *Journal of Dental Research*, **84**, 2005.
31. S.D. Rice, **Deborah King, Kristopher Harrell**, J.L. Stewart and M.R. Wofford – "Hypertension Awareness, Control and Treatment in Rural Mississippi: Have-A-Heart Project", *American Journal of Hypertension*, **18**, p. 149A, 2005.
32. **Agnes Rimando**, R. Nagmani, **Dennis Feller** and W. Yokoyama – "Pterostilbene, a New Agonist for the Peroxisome Proliferator-Activated Receptor α-Isoform, Lowers Plasma Lipoproteins and Cholesterol in Hypercholesterolemic Hamsters", *Journal of Agricultural and Food Chemistry*, **53**, pp. 3403-3407, 2005.
33. V. Rudraraju and **Christy Wyandt** – "Rheological Characterization of Microcrystalline Cellulose/Sodiumcarboxymethyl Cellulose Hydrogels Using a Controlled Stress Rheometer: Part I", *International Journal of Pharmaceutics*, **292**, pp. 53-61, 2005.
34. V. Rudraraju and **Christy Wyandt** – "Rheology of Microcrystalline Cellulose and Sodiumcarboxymethyl Cellulose Hydrogels Using a Controlled Stress Rheometer: Part II", *International Journal of Pharmaceutics*, **292**, pp. 63-73, 2005.

35. J.T. Samuel, A.J. Wilburn, **Deborah King, Kristopher Harrell** and T. Mitchell – "New Directions in Hypertension Management", *Bureau of Pharmaceutical Services Continuing Education*, pp. 1-13, October 2004 <www.rxed.org/umce>.
36. J.L. Stewart, S.J. Barud, T.M. Jacobs and **Deborah King** – "Racial Disparities in the Control of Blood Pressure and Number of Medications in a Multidisciplinary Hypertension Clinic", *American Journal of Hypertension*, **18**, p. 221A, 2005.
37. H. Tang, **Robert Doerksen** and G.N. Tew – "Synthesis of Urea Oligomers and Their Antibacterial Activity", *The Royal Society of Chemistry*, pp. 1537-1539, 2005.
38. T. Vera, J.R. Henegar, H.A. Drummond, **John Rimoldi** and D.E. Stec – "Protective Effect of Carbon Monoxide-Releasing Compounds in Ischemia-Induced Acute Renal Failure", *Journal of American Soc. Nephrol.*, **16**, pp. 950-958, 2005.
39. **Sean Wilson**, H.S. Mason, L.C. Ng, S. Montague, L. Johnston, N. Nicholson, S. Mansfield and J.R. Hume – "Role of Basal Extracellular Ca^{2+} Entry During 5-HT-induced Vasoconstriction of Canine Pulmonary Arteries", *British Journal of Pharmacology*, **144**, pp. 252-264, 2005.
40. M.R. Wofford and **Deborah King** – "Relationship Between Antihypertensive Drugs and Metabolic Syndrome", *Metabolic Syndrome and Related Disorders*, **2**, pp. 308-314, 2005.
41. M.R. Wofford, **Deborah King** and **Kristopher Harrell** – "Cardiovascular Health Promotion in Schools: Modifiable Risk Factors in Rural Mississippi Fifth Grade Students", *Journal of the Mississippi Academy of Sciences*, **50**, p. 82, January 2005.
42. M.R. Wofford, **Deborah King**, K. G. Harkins, J.L. Stewart, **Sara Noble** and J.B. Usery – "Incidence of Hyperkalemia Associated with Aldosterone Antagonists in a Hypertension Referral Center", *American Journal of Hypertension*, **18**, p. 76A, 2005.
43. M. Yousaf, **Nicholas Hammond, Jiangnan Peng**, S. Wahyuono, K.A. McIntosh, W.N. Charman, A.M.S. Mayer and **Mark Hamann** – "New Manzamine Alkaloids from an Indo-Pacific Sponge, Pharmacokinetics, Oral Availability, and the Significant Activity of Several Manzamines Against HIV-I, AIDS Opportunistic Infections, and Inflammatory Diseases", *J. Med. Chem.*, **47**, pp. 3512-3517, 2004.
44. **Jianping Zhao, Ilias Muhammad, Chuck Dunbar**, J. Mustafa and **Ikhlas Khan** – "New Alkamides from Maca (*Lepidium meyenii*)", *Journal of Agricultural and Food Chemistry*, **53**, pp. 690-693, 2005.

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 2005:	3
Patent Applications Pending:	37
Recent Patents Granted:	0

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

- The 2005 Graduate Student Achievement Awards in Pharmacy were presented to: **Seoung-Ryoung Choi**, Medicinal Chemistry Ph.D. candidate (Advisor is **Dr. Mitch Avery**); and **Kaleem Mohammed**, Pharmacognosy Ph.D. candidate (Advisor is **Dr. Dale Nagle**).
- **Dale Nagle** and **Yu-Dong Zhou** have won the Beal Award from the American Society of Pharmacognosy (ASP) for the Best Paper published in the *Journal of Natural Products* for 2004. The award is open to papers submitted by younger investigators (persons within 12 years of receiving their Ph.D. degree, and within 10 years of gaining their first independent employment).

- **Dr. Nagle** has also been selected to receive an ASP Matt Suffness Award. The award is intended to recognize the contributions of younger natural product scientists, and to provide a special, timely forum (Young Investigators Symposium) for them to present results from their research at the annual ASP meeting being held this year in Corvalis, Oregon.
- The International Association of Dental Research (IADR) Annual Meeting was held in Baltimore, MD, March 9-12, 2005. The following abstract was presented at the meeting: **Michael Repka,** S. Prodduturi, **Melissa Jacob, Shabana Khan** and **Steven Stodghill** – "Formulation and Characterization of Hot-Melt Extruded Antifungal Denture Adhesive Films".
- **Dr. Repka** was also awarded First Prize for Oral Presentation, J. Morita Investigator Award for Geriatric Oral Research during the 83rd General Session and Exhibition of the IADR Meeting.
- During the 36th Annual Southeastern Residency Conference Meeting in May 2005, the following abstracts were presented:
  (1) C.M. Brock, **Deborah King, Kristopher Harrell**, W.B. White and N. Fahmy – "Metabolic Syndrome in High Risk Minority College Students"
  (2) S.D. Rice, **Deborah King** and **Kristopher Harrell** – "Hypertension Prevalence, Control and Management in Rural Mississippi: The Morton Have-A-Heart Project"
  (3) P. Williams, **Deborah King**, J. Stewart and M. Wofford – "The Use of Eplerenone in Refractory Hypertension".
- During the 2005 Spring Practice and Research Forum of the American College of Clinical Pharmacy Meeting held April 10-13 in Myrtle Beach, SC, the following abstracts were presented:
  (1) **Carol Hope,** C.A. Brown, J.H. Bailey, **Lisa Murphey** and W.J. Rudman – "The Impact of Strong Pharmacy Leadership on Inpatient Medication Error Web-based Occurrence Reports"
  (2) **Leigh Ann Ross, Lisa Murphey, Margaret Pitcock** and **Carol Hope** – "Pharmacist Involvement in Medication Therapy Management Services in an Adult Asthma Clinic".
- During the 106th Annual Meeting of the American Society for Clinical Pharmacology and Therapeutics held March 2-6, 2005 in Orlando, FL, the following abstract was presented:
  (1) **Carol Hope** and W. Rudman – "Increased Prediction Accuracy of Adverse Drug Events Using Bayesian Analysis".

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 (www.pharmacy.olemiss.edu)!** Thank you.

cc: Dean Barbara G. Wells
Ms. Dabney Weems