The University of Mississippi

Interoffice Memorandum
SCHOOL OF PHARMACY
OFFICE OF THE DEAN
University, MS 38677
Phone: (662) 915-7265 Fax: (662) 915-5704

TO: **All School of Pharmacy Personnel**

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

DATE: **October 10, 2005**

SUBJECT: **Research News (#3)**

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

1. **Dr. Mitchell Avery** (P.I. – Medicinal Chemistry) – Development and Testing of New Antimalarial Drugs (Department of Health and Human Services/Centers for Disease Control and Prevention/National Center for Infectious Diseases), $3,000,000.00 – August 1, 2005-July 31, 2006.
2. **Dr. Mitchell Avery** (P.I. – Medicinal Chemistry) – Development and Testing of New Medicines for Treatment of Emerging Infectious Diseases – Year 3 (Department of Health and Human Services/Centers for Disease Control and Prevention), $1,500,000.00 – September 15, 2005-September 14, 2006.
3. **Dr. Joseph Byrd** (P.I. – Pharmacy Practice) – Agreement for Clinical Liaison (University of Mississippi Medical Center Department of Medicine), $57,840.00 – April 1, 2005-March 31, 2006.
4. **Dr. Joseph Byrd** (P.I. – Pharmacy Practice) – Contract for Residency Training Program Support (University of Mississippi Medical Center), $25,000.00 – July 1, 2005-June 30, 2006.
5. **Dr. Joseph Byrd** (P.I. – Pharmacy Practice) – UM School of Pharmacy and Baptist Memorial Hospital – North Mississippi Agreement (Baptist Memorial Hospital – North Mississippi), $56,250.00 – July 19, 2005-July 18, 2006.
6. **Dr. Joseph Byrd** (P.I. – Pharmacy Practice) – Delta Diabetes Project (University of Mississippi Medical Center), $38,973.00 – August 1, 2005-July 31, 2006.
7. **Dr. Alice Clark** (P.I. – School of Pharmacy/Office of Research and Sponsored Programs) and **Dr. Ameeta Agarwal** (Co-P.I. – NCNPR) – New Drugs for Opportunistic Infections (National Institutes of Health/National Institutes of Allergy and Infectious Diseases), $314,593.00 – July 1, 2005-June 30, 2006.
8. **Dr. John Cleary** (P.I. – Pharmacy Practice) – Amphotericin B High Purity for the Treatment of Opportunistic Infections in Patients with AIDS (STTR & Cumberland Pharmaceuticals/National Institutes of Health), $60,137.00 – July 13, 2005-March 31, 2006.
9. **Dr. John Cleary** (P.I. – Pharmacy Practice) – Pharmaceutical Company Support (Clinical Microbiology Institute), $2,400.00 – July 20, 2005-July 19, 2006.
10. **Dr. Victor Dostrow** (P.I. – Pharmacy Practice) and **Dr. Brian Crabtree** (Co-P.I. – Pharmacy Practice) – Optimization of Extended-Release Divalproex in Mentally Retarded Patients with

Comorbid Epilepsy and Psychiatric Illness (Abbott Laboratories), $62,450.00 – September 9, 2005-November 8, 2006.

11. **Dr. Melissa Jacob** (P.I. – NCNPR) – Anti-Fungal Testing of New Drugs (Florida A & M/National Institutes of Health), $20,470.00 – June 1, 2005-May 31, 2006.
12. **Dr. Ikhlas Khan** (P.I. – NCNPR) – Optimizing Therapeutic Ratios of Herbs: Gingko as a Model (Harvard University/National Institutes of Health), $87,917.11 – July 1, 2005-September 30, 2005.
13. **Dr. Ikhlas Khan** (P.I. – NCNPR) – Mechanisms of Gingko biloba Neuroprotection (The University of Southern Mississippi/National Institutes of Health), $38,000.00 – September 15, 2004-May 31, 2006.
14. **Dr. Ikhlas Khan** (P.I. – NCNPR) – Optimization of Large-Scale Production of Value-Added Standardized Medicinal Plant Extracts (Civil Engineering Research Foundation), $7,000.00 – August 25, 2005-June 30, 2006.
15. Dr. Thomas Lombardo (P.I. – Psychology/Office of Research and Sponsored Programs) and **Dr. John Bentley** (Co-P.I. – Pharmacy Administration) – "ACT Now" Tobacco Intervention Program (University of Mississippi Medical Center/Partnership for a Healthy Mississippi), $101,666.25 – June 1, 2005-May 31, 2006.
16. **Dr. Soumyajit Majumdar** (P.I. – Pharmaceutics) – Berberine Project (Next Pharmaceuticals, Inc.), $12,500.00 – October 7, 2005-December 6, 2005.
17. **Dr. Rae Matsumoto** (P.I. – Pharmacology) – Sigma Ligands for the Treatment of Cocaine Overdose (National Institute on Drug Abuse), $250,418.00 – August 1, 2005-July 31, 2006.
18. **Dr. David Pasco** (P.I. – NCNPR), **Dr. Nirmal Pugh** (Co-P.I. – NCNPR), **Dr. Ikhlas Khan** (Co-P.I. – NCNPR) and **Dr. Rita Moraes** (Co-P.I. – NCNPR) – New Immuno-Active Compounds for Optimizing Echinacea (National Institutes of Health/National Center for Complementary & Alternative Medicine), $284,203.00 – September 15, 2005-July 31, 2006.
19. **Dr. Marc Slattery** (P.I. – Pharmacognosy) – The National Institute for Undersea Science and Technology – 2005 Research – Phase II (U.S. Department of Commerce, National Oceanic and Atmospheric Administration), $1,499,792.00 – July 1, 2005-September 30, 2006.
20. **Dr. Larry Walker** (P.I. – NCNPR), **Dr. Dhammika Nanayakkara** (Co-P.I. – NCNPR) and **Dr. Babu Tekwani** (Co-P.I. – NCNPR) – NPC 1161B – Year 2 (Medicines for Malaria Venture), $619,800.00 – July 1, 2005-December 31, 2005.
21. **Dr. Larry Walker** (P.I. – NCNPR) and **Dr. Ikhlas Khan** (Co-P.I. – NCNPR) – Botanical Dietary Supplements: Science-Base for Authentication and Analysis (Food and Drug Administration), $855,881.00 – September 30, 2005-September 29, 2006.
22. **Dr. Larry Walker** (P.I. – NCNPR) and **Dr. Ikhlas Khan** (Co-P.I. – NCNPR) – Botanical Dietary Supplements: Science-Base for Authentication and Analysis – Supplement (Food and Drug Administration), $493,453.00 – September 30, 2005-September 29, 2006.
23. **Dr. Barbara Wells** (P.I. – RIPS/School of Pharmacy) and **Dr. Charles Hufford** (Co-P.I. – RIPS/School of Pharmacy) – National Center for Natural Products Research – Phase II Auditorium (Department of Health and Human Services/Health Resources and Services Administration), $2,553,369.00 – September 1, 2005-August 31, 2006.
24. **Dr. John Williamson** (P.I. – Medicinal Chemistry), **Dr. Mitchell Avery** (Co-P.I. – Medicinal Chemistry), **Dr. Ronald Borne** (Co-P.I. – Medicinal Chemistry), **Dr. Christopher McCurdy** (Co-P.I. – Medicinal Chemistry) and **Dr. John Rimoldi** (Co-P.I. – Medicinal Chemistry) – IGERT-Entrepreneurship at the Interface of Polymer Science and Medicinal Chemistry (The University of Southern Mississippi/National Science Foundation), $322,120.00 – October 1, 2005-September 30, 2006.
25. **Dr. John Williamson** (P.I. – Medicinal Chemistry) and **Dr. Mary Haasch** (Co-P.I. – RIPS/ECHR) – INBRE Mississippi Functional Genomics Network (MFGN) (The University of Southern Mississippi/National Institutes of Health), $100,800.00 – July 1, 2005-March 1, 2006.
26. **Dr. Jordan Zjawiony** (P.I. – Pharmacognosy) – Semisynthesis of Salvinorin A Derivatives and Analogs for k-Opioid Receptor and Related Studies (Case Western Reserve University/National Institutes of Health), $75,000.00 – July 1, 2005-June 30, 2006.

The following **PUBLICATIONS** have appeared:

1. A.A. Ahmed, M.M. Bishr, M.A. El-Shanawany, E.Z. Attia, **Samir Ross** and P.W. Pare – "Rare trisubstituted sesquiterpenes daucanes from the wild *Daucus carota*", *Phytochemistry*, **66**, 1680-1684, 2005.
2. J.L. Arbiser, **Xing-Cong Li, Chowdhury Hossain, Dale Nagle**, D.M. Smith, P. Miller, B. Govindarajan, J. DiCarlo, K.R. Landis-Piwowar and Q.P. Dou – "Naturally Occurring Proteasome Inhibitors from Mate Tea (*Ilex paraguayensis*) Serve as Models for Topical Proteasome Inhibitors", *The Society for Investigative Dermatology*, 207-212, August 2005.
3. **Premalatha Balachandran, Feng Wei**, R.C. Lin, **Ikhlas Khan** and **David Pasco** – "Structure activity relationships of aristolochic acid analogues: Toxicity in cultured renal epithelial cells", *Kidney International*, **67**, 1797-1805, 2005.
4. J.T. DiPiro, R.L. Talbert, G.C. Yee, G.R. Matzke, **Barbara Wells,** and L.M. Posey (editors) – Pharmacotherapy: A Pathophysiologic Approach, 6th Edition, McGraw-Hill, 2005.
5. **Daneel Ferreira, Jannie P.J. Marais** and **Desmond Slade** – "Heterogeneity of the interflavanyl bond in proanthocyanidins from natural sources lacking C-4 (C-ring) deoxy flavonoid nucleophiles", *Phytochemistry*, **66**, 2216-2237, 2005.
6. **Daneel Ferreira,** G.G. Gross, H. Kolodziej and T. Yoshida – "Tannins and related polyphenols: Fascinating natural products with diverse implications for biological systems, ecology, industrial applications and health protection", *Phytochemistry*, **66**, 1969-1971, 2005.
7. N. Fukamiya, K.H. Lee, **Ilias Muhammad**, C. Murakami, M. Okano, I. Harvey and J. Pelletier – "Structure-activity relationships of quassinoids for eukaryotic protein synthesis", *Cancer Letters*, **220**, 37-48, 2005.
8. A.M. Galal, **Samir Ross, Melissa Jacob** and **Mahmoud ElSohly** – "Antifungal Activity of Artemisinin Derivatives", *Journal of Natural Products*, **68**, 1274-1276, 2005.
9. W.J. Geldenhuys, P.R. Lockman, **Ashok Philip,** J.H. McAfee, **Bryan Miller**, **Christopher McCurdy** and D.D. Allen – "Inhibition of choline uptake by *N*-cyclohexylcholine, a high affinity ligand for the choline transporter at the blood-brain barrier", *Journal of Drug Targeting*, **13**, 259-266, 2005.
10. **Chowdhury Hossain, Young-Pil Kim, Scott Baerson,** L. Zhang, R.K. Bruick, K.A. Mohammed, **Ameeta Agarwal, Dale Nagle and Yu-Dong Zhou** – "*Saururus cernuus* ligands – Potent small molecule inhibitors of hypoxis-inducible factor-1", *Biochemical and Biophysical Research Communications*, **333**, 1026-1033, 2005.
11. **Xiuhong Ji, Ikhlas Khan,** J.A. Mosjidis, H. Wang and P. Livant – "Variability for the presence of pyrrolizidine alkaloids in *Crotolaria juncea* L.", *Pharmazie*, **60**, 620-622, 2005.
12. **Vaishali Joshi,** P.V. Srinivas and **Ikhlas Khan** – "Rapid and Easy Identification of *Illicium verum* Hook.f. and Its Adulterant *Illicium anisatum* Linn. By Fluorescent Microscopy and Gas Chromatography", *Journal of AOAC International*, **88**, 703-705, 2005.
13. **Vaishali Joshi** and **Ikhlas Khan** – "Macroscopic and Microscopic Authentication of Chinese and North American Species of *Ephedra*", *Journal of AOAC International*, **88**, 707-713, 2005.
14. J.T. Kando, **Barbara Wells** and P. E. Hayes – "Depressive Disorders", Pharmacotherapy: A Pathophysiologic Approach, 6th Edition, 1235-1255, 2005.
15. C.K. Kirkwood, E.H. Makela and **Barbara Wells** – "Anxiety Disorders II: Posttraumatic Stress Disorder and Obsessive Compulsive Disorder", Pharmacotherapy: A Pathophysiologic Approach, 6th Edition, 1307-1319, 2005.
16. **Jannie P.J. Marais, Daneel Ferreira** and **Desmond Slade** – "Stereoselective synthesis of monomeric flavonoids", *Phytochemistry*, **66**, 2145-2176, 2005.
17. S.M. Mustafa, S.A. Bavadekar, G. Ma, B. Moore, **Dennis Feller** and D.D. Miller – "Synthesis and Biological Studies of Yohimbine Derivatives on Human Alpha2C-Adrenergic Receptors", *Bioorganic and Medicinal Chemistry Letters*, **15**, 2758-2760, 2005.

18. J.H. Poupaert, P. Carato and **Christopher McCurdy** – "A Simple and Effective Method for the Thionation of Amides to Thioamides usingA12O3-supported P4S10", *Letters in Organic Chemistry*, **2**, 330-333, 2005.
19. S. Prodduturi, R.V. Manek, W.M. Kolling, **Steven Stodghill** and **Michael Repka** – "Solid-State Stability and Characterization of Hot-Melt Extruded Poly(Ethylene Oxide) Films", *Journal of Pharmaceutical Science*, **94**, 2232-2245, 2005.
20. **John Rimoldi, Satish Puppali**, E. Isin, P. Bissel, A. Khalil and N. Castagnoli – "A novel and selective monoamine oxidase B substrate", *Bioorganic & Medicinal Chemistry*, **13**, 5808-5813, 2005.
21. **Samir Ross**, M.A. Al-Azeib, K.S. Krishnaveni, F.R. Fronczek and **Charles Burandt** – "Alkamides from the Leaves of *Zanthoxylum syncarpum*", *Journal of Natural Products*, **68**, 1297-1299, 2005.
22. **Desmond Slade, Daneel Ferreira** and **Jannie P.J. Marais** – "Circular dichroism, a powerful tool for the assessment of absolute configuration of flavonoids", *Phytochemistry*, **66**, 2177-2215, 2005.
23. A. Slominski, I. Semak, **Jordan Zjawiony**, J. Wortsman, W. Li, A. Szczesniewski and R.C. Tuckey – "The cytochrome P450scc system opens an alternate pathway of vitamin D3 metabolism", *The FEBS Journal*, **272**, 4080-4090, 2005.
24. A. Slominski, I. Semak, **Jordan Zjawiony**, J. Wortsman, M.N. Gandy, J. Li, B. Zbytek, W. Li and R.C. Tuckey – "Enzymatic Metabolism of Ergosterol by Cytochrome P450scc to Biologically Active 17α,24-Dihydroxyergosterol", *Chemistry and Biology*, **12**, 931-939, 2005.
25. **Barbara Wells,** J.T. DiPiro, T.L. Schwinghammer and C.W. Hamilton (editors) – Pharmacotherapy Handbook, 6th Edition, McGraw-Hill, 2005.
26. **Barbara Wells** – "Residency Training: It's Time to Get Serious!", President's Column, American College of Clinical Pharmacy (ACCP) Report, **23(11)**, 3-4, 2004.
27. **Barbara Wells** – "The Greatest Injustice of All", President's Column, ACCP Report, **24(1)**, 3-4, 2005.
28. **Barbara Wells** – "Investing in the Future of Clinical Pharmacy: Bringing Students into the Fold", President's Column, ACCP Report, **24(5)**, 2005.
29. **Barbara Wells** – "Leadership Development: A Commitment to Patients and the Profession", President's Column, ACCP Report, **24 (7)**, 4-5, 2005.
30. F. Yan, P.D. Mosier, R.B. Westkaemper, J. Stewart, **Jordan Zjawiony,** T.A. Vortherms, D.J. Sheffler and B.L. Roth – "Identification of the Molecular Mechanisms by Which the Diterpenoid Salvinorin A Binds to κ–Opioid Receptors", *Biochemistry*, **44**, 8643-8651, 2005.
31. **Yu-Dong Zhou, Yong-Pil Kim,** K.A. Mohammed, D.K. Jones, **Ilias Muhammad**, D.C. Dunbar and **Dale Nagle** – "Terpenoid Tetrahydroisoquinoline Alkaloids Emetine, Klugine, and Isocephaeline Inhibit the Activation of Hypoxia-Inducible Factor-1 in Breast Tumor Cells", *Journal of Natural Products*, **68**, 947-950, 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:	7
Patent Applications Pending:	33
Recent Patents Granted:	0

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
Ms. Euphiazene Gray, Office of Research