

University of Mississippi

eGrove

---

Research News: Grants and Publications  
(2000-2014)

Research Grants, Publications, and U. S.  
Patents

---

4-23-2004

## Research News: 2004, no. 1

University of Mississippi. School of Pharmacy

Follow this and additional works at: [https://egrove.olemiss.edu/pharmacy\\_news](https://egrove.olemiss.edu/pharmacy_news)



Part of the [Pharmacy and Pharmaceutical Sciences Commons](#)

---

### Recommended Citation

University of Mississippi. School of Pharmacy, "Research News: 2004, no. 1" (2004). *Research News: Grants and Publications (2000-2014)*. 13.

[https://egrove.olemiss.edu/pharmacy\\_news/13](https://egrove.olemiss.edu/pharmacy_news/13)

This Report is brought to you for free and open access by the Research Grants, Publications, and U. S. Patents at eGrove. It has been accepted for inclusion in Research News: Grants and Publications (2000-2014) by an authorized administrator of eGrove. For more information, please contact [egrove@olemiss.edu](mailto:egrove@olemiss.edu).



# 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:** April 23, 2004

**SUBJECT:** Research News (#-1)

---

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

1. **Dr. Joseph Byrd** (P.I. – Pharmacy Practice) – Psychopharmacological Services Agreement: Dr. Brian Crabtree (Mississippi State Hospital), \$24,000.00 – May 1, 2004-April 30, 2005.
2. **Dr. Alice Clark** (P.I. – RIPS/NCNPR) and **Dr. Ameeta Agarwal** (Co-P.I. – RIPS/NCNPR) – New Drugs for Opportunistic Infections (National Institutes of Health/National Institute of Allergy and Infectious Diseases), \$287,000.00.
3. **Dr. Mahmoud ElSohly** (P.I. – RIPS/NCNPR) and **Dr. Samir Ross** (Co-P.I. – RIPS/NCNPR) – Production, Analysis and Distribution of Cannabis and Marijuana Cigarettes (National Institute on Drug Abuse), \$876,162.00 – December 1, 2003-November 30, 2004.
4. **Dr. Rahul Ganguly** (P.I. – Pharmacy Administration) – An Evaluation of the Effects of a Prior Authorization Requirement for Atypical Antipsychotic Medications in the Georgia Medicaid Program (The University of Georgia/Boston Health Economics), \$7,175.00 – November 1, 2003-March 31, 2004.
5. **Dr. Mark Hamann** (P.I. – Pharmacognosy) – AntiAIDS Agents from Marine Organisms (National Institutes of Health/National Institute of Allergy and Infectious Diseases), \$354,835.00 – June 1, 2004-May 31, 2005.
6. **Dr. Melissa Jacob** (P.I. – RIPS/NCNPR) – Anti-Fungal Testing of New Drugs (Florida Agricultural & Mechanical University/NIH), \$19,295.00 – September 1, 2003-May 31, 2004.
7. **Dr. David McCaffrey** (P.I. – RIPS/ECHR/PMMP) and **Dr. Alicia Bouldin** (Co-P.I. - Pharmacy Administration) – Expectations of the American Association of Colleges of Pharmacy: An Investigation of Members, Nonmembers and CEO Deans (American Association of Colleges of Pharmacy), \$14,521.20.
8. **Dr. David Pasco** (P.I. – RIPS/NCNPR) – Reporter Gene Assay: Screening for Human Aromatase Modulators (KAO Corporation), \$30,000.00 – February 1, 2004-January 31, 2005.
9. **Dr. David Pasco** (P.I. – RIPS/NCNPR) – Immulina Mouse Studies (Nordic Phytopharma), \$4,400.00 – February 1, 2004-January 31, 2005.
10. **Dr. Michael A. Repka** (P.I. – Pharmaceutics) and **Dr. Steven Stodghill** (Co-P.I.-Pharmaceutics) – Antifungal Denture Adhesive Film for Oral Candidiasis (NIH/NIDCR SBIR grant through Mikkur, Inc.), \$39,240.00 – April 2004-April 2005.
11. **Dr. Marc Slattery** (P.I. – Pharmacognosy) – Hybrid Soft Coral Antimicrobial Resistance: Combinatorial Chemistry & Gene Expression (Mississippi-Alabama Sea Grant Consortium), \$10,000.00 – September 1, 2003-August 31, 2004.
12. **Dr. Marc Slattery** (P.I. – Pharmacognosy) – Chemical Mixtures: Consequences of WNV Eradication on Water Quality (Mississippi State University/United States Geological Survey), \$12,380.00 – March 1, 2003-February 28, 2006.

13. **Dr. Kristine Willett** (P.I. – Pharmacology) – Screening of Environmental Contaminants Detected in Mississippi Sediments as Inducers and/or Inhibitors of CYP1B1 Expression in Channel Catfish (Mississippi State University/United States Geological Survey), \$12,380.00 – March 1, 2003-February 28, 2004.
14. **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 (University of Southern Mississippi/National Science Foundation), \$294,760.00 – September 2003-August 2004.
15. **Dr. John Williamson** (P.I. – Medicinal Chemistry) – UM Biomedical Research Internship Program (National Institute of General Medical Sciences), \$201,171.00 – February 1, 2004-January 31, 2005.
16. **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 – September 30, 2003-June 30, 2004.

The following **PUBLICATIONS** have appeared:

1. M.R. Andrus, K.W. Kelley, **Lisa M. Murphey** and K.C. Herndon – “A Comparison of Diabetes Care in Rural and Urban Medical Clinics in Alabama”, *Journal of Community Health*, **29**, pp. 29-44, 2004.
2. R. Barnes and **Robert C. Speth** – “I-Angiotensin I Binding in the Rat Forebrain”, *Proc. West. Pharmacol. Soc.*, **46**, pp. 64-67, 2003.
3. L. Bennie, J. Coetzee, E. Malan, **Desmond Slade**, **Jannie P.J. Marais** and **Daneel Ferreira** – “Trimeric proteracacinidins and a (6 → 6)-bis-leucoteracacinidin from *Acacia galpinii* and *Acacia caffra*”, *Phytochemistry*, **65**, pp. 215-220, 2004.
4. T.E. Brown, J.W. Wright and **Robert C. Speth** – “Phospholipase C Inhibitor U73122 Attenuates the Dipsogenic Response Induced by Angiotensin II”, *Proc. West. Pharmacol. Soc.*, **46**, pp. 61-63, 2003.
5. C. Chavkin, S. Sud, W. Jin, **D. Jeremy Stewart**, **Jordan K. Zjawiony**, D.J. Siebert, B.A. Toth, S.J. Hufeisen and B.L. Roth – “Salvinorin A, an Active Component of the Hallucinogenic Sage *Salvia divinorum* Is a Highly Efficacious  $\mu$ -Opioid Receptor Agonist: Structural and Functional Considerations”, *The Journal of Pharmacology and Experimental Therapeutics*, **308**, pp. 1197-1203, 2004.
6. **Rooha G. Contractor**, C.M. Foran, S. Li and **Kristine L. Willett** – “Evidence of Gender- and Tissue-Specific Promoter Methylation and the Potential for Ethinylestradiol-Induced Changes in Japanese Medaka (*Oryzias latipes*) Estrogen Receptor and Aromatase Genes”, *Journal of Toxicology and Environmental Health*, **67**, pp. 1-22, 2004.
7. **Hesham T. Fahmy**, S.I. Khalifa, T. Konoshima and **Jordan K. Zjawiony** – “An Improved Synthesis of 7,8-Epoxy-1,3,11-cembratriene-15R( ), 16-diol, a Cembranoid of Marine Origin with a Potent Cancer Chemopreventive Activity”, *Marine Drugs*, **1**, pp. 1-7, 2004.
8. **Daneel Ferreira**, **Jannie P. J. Marais**, **Desmond Slade** and **Larry A. Walker** – “Circular Dichroic Properties of Flavan-3,4-diols”, *Journal of Natural Products*, **67**, pp. 174-178, 2004.
9. **Mark T. Hamann** – “Enhancing Marine Natural Product Structural Diversity and Bioactivity through Semisynthesis and Biocatalysis”, *Current Pharmaceutical Design*, **9**, pp. 879-889, 2003.
10. **Jin-Feng Hu**, **Mark T. Hamann**, R. Hill and M. Kelly – “The Manzamine Alkaloids”, *The Alkaloids*, **60**, Chapter 4, pp. 207-285, 2003.
11. J. Huang, Y. Hara, J. Anrather, **Robert C. Speth**, C. Iadecola and V.M. Pickel – “Angiotensin II Subtype 1A (AT1A) Receptors in the Rat Sensory Vagal Complex: Subcellular Localization and Association with Endogenous Angiotensin”, *Neuroscience*, **122**, pp. 21-36, 2003.
12. **Melissa R. Jacob**, **Chowdhury F. Hossain**, **Kaleem A. Mohammed**, **Troy J. Smillie**, **Alice M. Clark**, **Larry A. Walker** and **Dale G. Nagle** – “Reversal of Fluconazole Resistance in Multidrug Efflux-Resistant Fungi by the *Dysidea arenaria* Sponge Sterol 9 $\alpha$ ,11 $\beta$ -Epoxycholest-7-ene-3 $\alpha$ ,5 $\beta$ ,6 $\beta$ ,19-tetrol 6-Acetate”, *Journal of Natural Products*, **66**, pp. 1618-1622, 2003.
13. E. Joubert, P. Winterton, T.J. Britz and **Daneel Ferreira** – “Superoxide anion and  $\cdot$ -diphenyl- $\pi$ -picrylhydrazyl radical scavenging capacity of rooibos (*Aspalathus linearis*) aqueous extracts, crude phenolic fractions, tannin and flavonoids”, *Food Research International*, **37**, pp. 133-138, 2004.
14. I. Katsuyama, A.A. Khalil, **D. Charles Dunbar** and **Jordan K. Zjawiony** – “Concentration-Dependent Variation of  $^1\text{H-NMR}$  Chemical Shifts of Aromatic Protons in Sampangine Derivatives”, *Spectroscopy Letters*, **36**, pp. 477-485, 2003.
15. **Shabana I. Khan**, E.A. Abourashed, **Ikhlas A. Khan** and **Larry A. Walker** – “Transport of Parthenolide across Human Intestinal Cells (Caco-2)”, *Planta Med.*, **69**, pp. 1009-1012, 2003.

16. **Shabana I. Khan**, E.A. Abourashed, **Ikhlas A. Khan** and **Larry A. Walker** – “Transport of Harman Alkaloids across Caco-2 Cell Monolayers”, *Chem. Pharm. Bull.*, **52**, pp. 394-397, 2004.
17. S.G. Lalchandani, X. Zhang, S.S. Hong, S.B. Liggett, W. Li, B.M. Moore, D.D. Miller and **Dennis R. Feller** – “Medetomidine analogs as selective agonists for the human  $\alpha_2$ -adrenoceptors”, *Biochemical Pharmacology*, **67**, pp. 87-96, 2004.
18. M. Lyles-Eggleston, R. Altundas, J. Xia, D.M.N. Sikazwe, P. Fan, Q. Yang, S. Li, W. Zhang, X. Zhu, A.W. Schmidt, M. Vanase-Frawley, A. Shrihkande, A. Villalobos, **Ronald F. Borne** and S.Y. Ablordeppey – “Design, Synthesis, and Evaluation of Metabolism-Based Analogues of Haloperidol Incapable of Forming MPP<sup>+</sup>-like Species”, *Journal of Medicinal Chemistry*, **3**, pp. 497-508, 2004.
19. E.A. McPherson, Z. Luo, R.A. Brown, L.S. Lebard, C.C. Corless, **Robert C. Speth** and S.P. Bagby – “Chymase-like Angiotensin II-Generating Activity in End-Stage Human Autosomal Dominant Polycystic Kidney Disease”, *Journal of the American Society of Nephrology*, **15**, pp. 493-500, 2004.
20. **Bruhaspathy Miriyala**, S. Bhattacharyya and **John S. Williamson** – “Chemoselective reductive alkylation of ammonia with carbonyl compounds: synthesis of primary and symmetrical secondary amines”, *Tetrahedron*, **60**, pp. 1463-1471, 2004.
21. D. Muller, A.K. Mukhopadhyay, **Robert C. Speth**, G. Guidone, R. Potthast, L.R. Potter and R. Middendorff – “Spatiotemporal Regulation of the Two Atrial Natriuretic Peptide Receptors in Testis”, *Endocrinology*, **145**, pp. 1392-1401, 2004.
22. **Igor A. Parshikov**, **Bruhaspathy Miriyala**, **Mitchell A. Avery** and **John S. Williamson** – “Hydroxylation of 10-deoxyartemisinin to 15-hydroxy-10-deoxyartemisinin by *Aspergillus niger*”, *Biotechnology Letters*, **26**, pp. 607-610, 2004.
23. **Igor A. Parshikov**, **Kannoth M. Muraleedharan**, **Mitchell A. Avery** and **John S. Williamson** – “Transformation of artemisinin by *Cunninghamella elegans*”, *Applied Microbiology and Biotechnology*, 2004.
24. **Jiangnan Peng**, **Mitchell A. Avery** and **Mark T. Hamann** – “Cyanthiwigin AC and AD, Two Novel Diterpene Skeletons from the Jamaican Sponge *Myrmekioderma styx*”, *Organic Letters*, **5**, pp. 4575-4578, 2003.
25. **Jiangnan Peng**, **Jin-Feng Hu**, **Abul B. Kazi**, **Ze Li**, **Mitchell A. Avery**, O. Peraud, R.T. Hill, S.G. Franzblau, F. Zhang, R.F. Schinazi, S.S. Wirtz, P. Tharnish, M. Kelly, S. Wahyuono and **Mark T. Hamann** – “Manadomanzamines A and B: A Novel Alkaloid Ring System with Potent Activity against Mycobacteria and HIV-1”, *Journal of the American Chemical Society*, **125**, pp. 13382-13386, 2003.
26. **Jiangnan Peng**, X. Shen, K.A. ElSayed, **D. Charles Dunbar**, T.L. Perry, S.P. Wilkins, **Mark T. Hamann**, S. Bobzin, J. Huesing, R. Camp, M. Prinsen, D. Krupa and M.A. Wideman – “Marine Natural Products as Prototype Agrochemical Agents”, *Journal of Agricultural and Food Chemistry*, **51**, pp. 2246-2252, 2003.
27. **Jiangnan Peng**, K. Walsh, V. Weedman, J.D. Bergthold, J. Lynch, K.L. Lieu, I.A. Braude, M. Kelly and **Mark T. Hamann** – “The new bioactive diterpenes cyanthiwigins E – AA from the Jamaican sponge *Myrmekioderma styx*”, *Tetrahedron*, **58**, pp. 7809-7819, 2002.
28. **Jiangnan Peng**, S.G. Franzblau, F. Zhang and **Mark T. Hamann** – “Novel sesquiterpenes and a lactone from the Jamaican sponge *Myrmekioderma styx*”, *Tetrahedron Letters*, **43**, pp. 9699-9702, 2002.
29. **Samir A. Ross**, G.N.N. Sultana, **Charles L. Burandt**, **Mahmoud A. ElSohly**, **Jannie P.J. Marais** and **Daneel Ferreira** – “Syncarpamide, a New Antiplasmodial (+)-Norepinephrine Derivative from *Zanthoxylum syncarpum*”, *Journal of Natural Products*, **67**, pp. 88-90, 2004.
30. **Robert C. Speth**, T.E. Brown, R.D. Barnes and J.W. Wright – “Brain Angiotensinergic Activity: the State of Our Current Knowledge”, *Proc. West. Pharmacol. Soc.*, **46**, pp. 11-15, 2003.
31. **Robert C. Speth** – “The Genome Poem”, *American Journal of Medical Genetics*, **120A**, p. 308, 2003.
32. **D. Jeremy Stewart**, I. Katsuyama, **Hesham T. Fahmy**, F.R. Fronczek and **Jordan K. Zjawiony** – “A Direct Synthesis of 3,5-Dibromo-*o*-methyl-L-tyrosine”, *Synthetic Communications*, **34**, pp. 547-555, 2004.
33. S.J. Swenson, **Robert C. Speth** and J.P. Porter – “Effect of a perinatal high-salt diet on blood pressure control mechanisms in young Sprague-Dawley rats”, *AJP-Regul Integr Comp. Physiol.*, **286**, pp. R764-R770, 2004.
34. **Robert C. Speth** – “Sarcosine<sup>1</sup>, glycine<sup>8</sup> angiotensin II is an AT<sub>1</sub> angiotensin II receptor subtype selective antagonist”, *Regulatory Peptides*, **115**, pp. 203-209, 2003.
35. **Satoshi Takamatsu**, **Dale G. Nagle** and W.H. Gerwick – “Secondary Metabolites from Marine Cyanobacteria and Algae Inhibit LFA-1/ICAM-1 Mediated Cell Adhesion”, *Planta Med.*, **70**, pp. 127-131, 2004.
36. **Abhai K. Tripathi**, **Shabana I. Khan**, **Larry A. Walker** and **Babu L. Tekwani** – “Spectrophotometric determination of de novo hemozoin/ -hematin formation in an in vitro assay”, *Analytical Biochemistry*, **325**, pp. 85-91, 2004.

37. J.W. Wright, E. Tamura-Myers, W.L. Wilson, B.P. Roques, C. Llorens-Cortes, **Robert C. Speth** and J.W. Harding – “Conversion of brain angiotensin II to angiotensin III is critical for pressor response in rats”, *American Journal of Physiol Regul Integr Comp Physiol*, **284**, pp. R725-R733, 2003.
38. De-Yu Xie, L.A. Jackson, J.D. Cooper, **Daneel Ferreira** and N.L. Paiva – “Molecular and Biochemical Analysis of Two cDNA Clones Encoding Dihydroflavonol-4-Reductase from *Medicago truncatula*”, *Plant Physiology*, **134**, pp. 979-994, 2004.
39. L.S. Zisman, R.S. Keller, B. Weaver, Q. Lin, **Robert C. Speth**, M.R. Bristow and C.C. Canver – “Increased Angiotensin-(1-7)-Forming Activity in Failing Human Heart Ventricles”, *Circulation*, pp. 1707-1712, 2003.
40. **Jordan K. Zjawiony** – “Biologically Active Compounds from Aphyllphorales (Polypore) Fungi”, *Journal of Natural Products*, **67**, pp. 300-310, 2004.

#### 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.

<i>Invention Disclosures Filed in 2004:</i>	3
<i>Patent Applications Pending:</i>	19
<i>Recent Patents Granted:</i>	0

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

- The Agrochemicals Division of the American Chemical Society presented its International Award for Research in Agrochemicals to **Stephen Duke**, Research Leader of the USDA Agricultural Research Service (ARS) Natural Products Utilization Research Unit. Dr. Duke was honored with the award at the 227<sup>th</sup> ACS National Meeting in Anaheim, California – March 29, 2004.
- The University of Mississippi was one of six winners of an American Society of Health-System Pharmacists Best Practices Award for its “Pharmaceutical Care Clinics: An Innovation in Collaborative Medication Therapy Management”. The project is being led by **Leigh Ann Ramsey**. The award was presented at the ASHP Midyear Clinical Meeting in New Orleans.
- The 2004 Graduate Achievement Awards were presented to **Haidy Kamel** (Pharmacognosy) and **Suneela Prodduturi** (Pharmaceutics).
- **Samir Ross:** (a) was an invited speaker at the Fourth Pharmaceutical Sciences Conference held at Assiut University, School of Pharmacy in Assiut, Egypt – March 6-7, 2004. The topic of the talk was “Biological and Phytochemical Studies on Truffles”.  
(b) was an invited speaker at the International Conference on Natural Products: Chemistry, Technology and Medicinal Perspectives – October 8-11, 2003 in Almaty, Kazakhstan. The title of his talk was “Mushrooms as a Potential Source for Biologically Active Compounds”.  
(c) attended the North American Mycological Association Foray 2003, which was held at Saint-Augustin-de-Desmaures, Quebec, Canada – August 29-September 1, 2003.
- **Jordan Zjawiony** is serving on the International Editorial Board of *Marine Drugs*, a new online international magazine on the research, development and production of drugs from the sea, including marine natural product chemistry.
- Presentations made during the American Pharmacists Association Meeting – March, 2004:  
(a) **Joseph Bonnarens, Noel Wilkin, David McCaffrey** and **Dewey Garner** – “Examining the Relationships Within and the Presence of the Service-Profit Chain in Independent Community Pharmacy”.  
(b) **Mansi Shah, John Bentley** and **David McCaffrey** – “Patient Evaluation of Care Following a Denial of an Advertising-related Prescription Drug Request: The Role of Expectations, Symptom Severity and Physician Decision Making Style”.
- Poster and Podium Slide Presentation held during the Annual Meeting of the International Association of Dental Research on March 11, 2004 – **Michael Repka, Suneela Prodduturi** and **Steven Stodghill** – “Evaluation of Hot-Melt Extruded Films Containing Antifungals for the Treatment of Oral Candidiasis”.

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