



Volume 3, Issue 4, February 28, 2003, From [The University of Oklahoma College of Pharmacy](#)

From the college

Dear Friends:



The Office of Continuing Pharmaceutical Education at The University of Oklahoma College of Pharmacy offers a variety of professional seminars and other programs to assist pharmacists in maintaining their professional competencies and in acquiring new knowledge, skills, and abilities.

The Oklahoma State Board of Pharmacy requires that all pharmacists complete 15 hours of approved continuing education each year as a condition for license renewal.

In January 2003, The American Council on Pharmaceutical Education (ACPE) reviewed the Petition for Continued Accreditation of The Office of Continuing Pharmaceutical Education at The University of Oklahoma College of Pharmacy. Based on ACPE's review and subsequent evaluation, The Office was extended accreditation as an ACPE-accredited provider of continuing pharmaceutical education for the full six years allowed. This action by ACPE ensures that The Office will continue its mission of offering innovative and applicable educational opportunities for pharmacists in Oklahoma and the nation while maintaining its fiduciary independency. Our programs focus on meeting the needs of lifelong learning through increasing knowledge in basic and applied sciences. We also assist the pharmacist in attaining or enhancing the skills necessary to meet the challenges of a rapidly changing and developing profession.

The Office, through the recommendations of pharmacist practitioners, who respond to an on-line needs assessment survey and the direction of The University of Oklahoma College of Pharmacy Continuing Education Committee has developed and continues to develop innovative programs to enhance the pharmacist practitioner's knowledge base. Programs, such as the Adult Immunization Certificate Program and the Disease State Management of Diabetes Certificate Program are intense and interactive in content and nature of offering. These certificate programs, taught by regionally and nationally recognized faculty experts, are aimed at the pharmacist practitioners who wish to enhance their positions as members of the health care team. Post program evaluations are performed by The Office on all certificate program participants in order to continue to monitor educational outcomes and the utility of this type of continuing education.

In addition to certificate programs, The Office offers and administers numerous other live continuing education programs throughout Oklahoma. The Office works in collaboration with the Oklahoma Pharmacist Association (OPhA) and offers monthly live programs in Oklahoma City and Tulsa which are geared towards the community pharmacist practitioner. The Office has collaborated with other organizations to develop the educational content of their annual meetings, such as, Oklahoma Society of Health-Systems Pharmacists (OSHP) and the Department of Infectious Diseases at the College of Medicine. The Office, on a national level, has provided education to pharmacists associated with the Indian Health Service and the Wal-Mart organization.

The first web-mediated continuing education program is now available on The College of Pharmacy web site, "[Biological Warfare: A Short Course for Pharmacists](#)" is a timely and relevant offering for all pharmacist practitioners regardless of practice interest.

The "[OUPharmCE Transcript](#)" is available to help pharmacists manage and track their live, as well as, online continuing pharmaceutical education programs provided by The University of Oklahoma College of Pharmacy. Pharmacists can retrieve, review, e-mail, and print their transcripts anytime, anywhere via the Internet. With the fabulous technology available through the College of Pharmacy Information Technology - OUPharmTech, numerous other innovative and web mediated programs are currently being developed and will be attractive to the adult learner of the 2000's.

If you have not participated in one of our continuing education programs then hopefully you will. Visit us online at <http://oupharmacy.com/ce> or call us at 405-271-6194 to hear of current and upcoming continuing education offerings. The



Office of Continuing Pharmaceutical Education at The University of Oklahoma College of Pharmacy continuously strives to offer quality educational programs to the pharmacists of Oklahoma and the nation. We look forward to seeing you at one of our programs.

Sincerely,

Tony Palmer, D.Ph., MBA
Director, Continuing Pharmaceutical Education and Clinical Associate Professor

College News

▪ Pharmaceutical Sciences Research Activity Report

Publications:

Shankar, N., Baghdayan, A.S. and Gilmore, M.S. Modulation of virulence within a pathogenicity island in vancomycin-resistant *Enterococcus faecalis*. *Nature* (2002) 417: 746-750.

McShan, W.M. and Shankar, N., (2002) The genome of *Enterococcus faecalis* V583: a tool for discovery in the Enterococci: Pathogenesis, Molecular Biology and Antimicrobial Resistance, ASM Press.

Archimbaud, C., Shankar, N., Forestier, C., Baghdayan, A.S., Gilmore, M.S., Charbonne, F. and Joly, B. In vitro adhesive properties and virulence factors of *Enterococcus faecalis* strains. *Res. Microbiol.* (2002) 153: 75-80.

Vergis, E.N., Shankar, N., Gilmore, M.S., Chow, J.W., Hayden, M.K., Snyderman, D.R., Zervos, M.J., Linden, P.K., Wagener, M.M. and Muder, R.E. Association between the presence of enterococcal virulence factors gelatinase, hemolysin and enterococcal surface protein and mortality among patients with bacteremia due to *Enterococcus faecalis*. *Clin. Infect. Dis.* (2002) 35: 570-575.

Tong, G.M., Rajah, T.T., Zang, X.P., and Pento, J.T. The Effect of Antiestrogens on TGF- β -Mediated Chemotaxis of Human Breast Cancer Cells. *Anticancer Res.*, 33: 103-106 (2002).

Nguyen, T.T., Zang, X.P. and Pento, J.T. Effects of KGF inhibitors on the migration and proliferation of breast cancer cells in a culture wounding model. *Pharmacological Res.*, 46: 179-83 (2002).

Zang, X.P., Nguyen, T.N. and Pento, J.T. Specific and non-specific KGF inhibition of KGF-induced breast cancer cell motility. *Anticancer Res.*, 22: (2002).

Rayburn, W.F., Christensen, H.D., Gold, K.P., Gonzalez, C.L. Neurobehavior Effects in four strains of Mice Offspring Exposed Prenatally to Alprazolam (Xanax), *Am. J. Obst. Gynecol.*, 187: 968-972 (2002).

Yoshimi Sueishi, Chiharu Yoshioka, Caludio Olea-Azar, Lester A. Reinke and Yashige Kotake. Substituent Effect on the Rate of the Hydroxyl and Phenyl Radical Spin Trapping with Nitrones. (2002)

Lester A. Reinke, Spin Trapping Evidence for Alcohol-Associated Oxidative Stress. (2002)

Guang-Di Chen, Effect of hypoxia on noise-induced auditory impairment. (2002)

Donal G. Sinex, Jennifer Henderson, Hongzhe Li and Guang-Di Chen. Responses of Chinchilla Inferior Colliculus Neurons to Amplitude-Modulated Tones with Different Envelopes. (2002)

Guang-Di Chen, Laurence D. Fechter. The relationship between noise-induced hearing loss and hair cell loss in rats. (2002)

Bourne, D.W.A. Chapter 12, Classical Modeling, Section IV Research Applications in Pharmacokinetics in Drug Discovery and Development Schoenwalk, R.D. ed., CRC Press, Boca Raton, FL. (2002)

Bourne, D.W.A. Mathematical Modeling of Pharmaceutical Data in Encyclopedia of Pharmaceutical Technology, volume X, Swarbrick, J. and Boylan, J.C. eds, Marcel Dekker, New York, NY on line at <http://www.dekker.com>. (2002)

Bourne, D.W.A. Chapter 3, Pharmacokinetics. In Modern Pharmaceutics. Banker, G.S. and Rhodes, C.T. eds., 4th ed., Marcel Dekker, New York, NY.

Matsumoto, R. R., McCracken, K. A., Pouw, B., Zhang, Y. and Bowen, W.D. (2002) Involvement of sigma receptors in the behavioral effects of cocaine: evidence from novel ligands and antisense oligodeoxynucleotides. *Neuropharmacol.* 42: 1043-1055.

Matsumoto, R. R. (2002) -aminobutyric acid in myoclonus. *Adv. Neurol.* 89: Involvement of 249-262.

Truong, D. D., Kirby, M., Kanthasamy, A. G. and Matsumoto, R. R. (2002) Posthypoxic myoclonus animal models. *Adv. Neurol.* 89: 295-306.

Maurice, T., Martin-Fardon, R., Romieu, P. and Matsumoto, R. R. (2002) Sigma1 σ_1 receptor antagonists represent a new strategy against cocaine addiction and overdose. *Neurosci. Biobehav. Rev.* 26: 499-527.

Matsumoto, R. R. and Pouw, B. (2002) Effects of novel NMDA/glycine-site antagonists on the blockade of cocaine-induced behavioral toxicity in mice. In B. Herman (Ed.), *Glutamate and Addiction*, Totowa: Humana Press, pp. 243-259.

Presentations at National and International Meetings

Posters:

IL-6 induces mitogenesis and migration in cultured dermal and epidermal cells from IL-6 deficient mice. Randle M. Gallucci, Dusti K. Sloan, and Julie M. Heck. *Experimental Biology*, New Orleans, May 2002.

Matsumoto, R. R., Liu, Y., Lerner, M. and Brackett, D. J. (2002) Blockade of cocaine-induced changes in gene expression by a sigma receptor antagonist. *Experimental Biology annual meeting*, New Orleans, LA, April 2002

Nguyen, E., McCracken, K. A. and Matsumoto, R. R. (2002) Sigma receptor antagonism attenuates the locomotor stimulatory effects of methamphetamine in mice. XXIII Congress of the Collegium Internationale Neuropsychopharmacologicum (CINP), Montreal, Canada, June 2002

Matsumoto, R. R., Liu, Y., Mack, A., Lerner, M., Brackett, D. J. (2002) Prevention of methamphetamine-induced changes in behavior and gene expression by a sigma receptor antagonist. XXIII Congress of the Collegium Internationale Neuropsychopharmacologicum (CINP), Montreal, Canada, June 2002

Liu, Y., Lerner, M., Brackett, D. J., Howard, E. W. and Matsumoto, R. R. (2002) Prevention of cocaine-induced changes in behavior and gene expression by a sigma receptor antagonist. XXIII Congress of the Collegium Internationale Neuropsychopharmacologicum (CINP), Montreal, Canada, June 2002



Matsumoto, R. R., Liu, Y., Lerner, M. R. and Brackett, D. J. (2002) Anti-cocaine effects of a sigma receptor antagonist are associated with fra-2. Society for Neuroscience annual meeting, November 2002

Gilmore, D. L., Coop, A., Bowen, W. D., Pouw, B. and Matsumoto, R. R. (2002) AC927, a putative sigma-2 receptor antagonist, attenuates cocaine-induced behaviors. Society for Neuroscience annual meeting, November 2002

Abstracts:

Gene expression profile associated with KGF-induced breast cancer cell motility. Zang, X.P., Learner, M.L., Do S.V., Gusev, Y., Brackett, D. J. and Pento, J.T.. DOD Era of Hope conference. September 25-28, 2002.

Downregulation of Grb2 expression led to inhibition of KGF-induced motility in MCF-7 breast cancer cells. Zang, X.P., Siwak, D., Tari, A.M. and Pento, J.T.. Breast Cancer Research Treat., 76, S167, 2002.

EGF Effects on Breast Cancer Cell Migration and Invasion. Pento, J.T. 2003 Keystone Symposium in Silverthorne, CO, 1/18-1/23/03.

Neurobehavior Effects in Four Strains of Mice Offspring Exposed Prenatally to Alprazolam (Xanax). Rayburn, W.F., Christensen, H.D., Gonzalez, C.L. Society Maternal-Fetal Medicine, January 2002.

Naltrexone Effectiveness in Treating Self-Abuse in an Adult Institutionalized Developmentally Disabled Population. Brahm, N.C., Christensen, H.D., Brown, R.C. College of Psychiatric and Neurologic Pharmacists Annual Meeting April 18-21, 2002.

Gabapentin Effectiveness in Treating Physical Assault. Brahm, N.C., Christensen, H.D., Brown, R.C. New Clinical Drug Evaluation Unit Annual Meeting June 10-13, 2002.

Impact of Prenatal Alprazolam on Anxiety and Social Interaction Tasks on Mice. Christensen, H.D., Gonzalez, C.L., Rayburn, W.F. Neurobehavioral Teratology June 25, 2002, Phoenix, AZ.

A pathogenicity island in virulent *Enterococcus Faecalis* XV Lancefield International Symposium on Streptococci and Streptococcal Diseases, Shankar, N. Goa, India, October 6-11, 2002.

Identification and characterization of a pathogenicity island in virulent strains of *Enterococcus faecalis*. Shankar, N. International Union of Microbiological Societies (IUMS), Paris, France, July 27-August 1, 2002.

Modulation of virulence within a pathogenicity island in vancomycin-resistant *Enterococcus faecalis*. Shankar, N. 6th International ASM Conference on Streptococcal genetics, Asheville, NC, April 14-17, 2002.

Matsumoto, R. R., Liu, Y., Lerner, M. and Brackett, D. J. (2002) Blockade of cocaine-induced changes in gene expression by a sigma receptor antagonist. Experimental Biology Abstract Viewer, ASPET, program #3966. (CD-ROM)

Nguyen, E., McCracken, K. A. and Matsumoto, R. R. (2002) Sigma receptor antagonism attenuates the locomotor stimulatory effects of methamphetamine in mice. Int. J. Neuropsychopharmacol. 5(Suppl. 1): S154.

Matsumoto, R. R., Liu, Y., Mack, A., Lerner, M., Brackett, D. J. (2002) Prevention of methamphetamine-induced changes in behavior and gene expression by a sigma receptor antagonist. Int. J. Neuropsychopharmacol. 5(Suppl. 1): S153-154.

Liu, Y., Lerner, M., Brackett, D. J., Howard, E. W. and Matsumoto, R. R. (2002) Prevention of cocaine-induced changes in behavior and gene expression by a sigma receptor antagonist. Int. J. Neuropsychopharmacol. 5(Suppl. 1): S153.

Matsumoto, R. R., Liu, Y., Lerner, M. R. and Brackett, D. J. (2002) Anti-cocaine effects of a sigma receptor antagonist are associated with fra-2. Society for Neuroscience Abstract Viewer/Itinerary Planner, program #806.6. (CD-ROM).

Gilmore, D. L., Coop, A., Bowen, W. D., Pouw, B. and Matsumoto, R. R. (2002) AC927, a putative sigma-2 receptor antagonist, attenuates cocaine-induced behaviors. Society for Neuroscience Abstract Viewer/Itinerary Planner, program #806.5. (CD-ROM).

Seminars/Symposium Presentations:

Expression of surface protein Esp enhances vegetation weight in experimental enterococcal endocarditis. Shankar, N. 6th International ASM Conference on Streptococcal genetics, Asheville, NC, April 14-17, 2002.

Altered Expression of Mucin Genes (MUC1, MUC2 and MUC8) in Endometrial Carcinomas and studies of Alternative Splicing of MUC Genes in Female Reproductive Tissues and Carcinomas. Sachdev, G. XVII International Symposium on glycoconjugates 1/12/03 in Bangalore, India.

"Novel sigma1 receptor antagonists and antisense oligonucleotides attenuate the behavioral toxicity of cocaine," XXIII Congress of the Collegium Internationale Neuropsychopharmacologicum (CINP), Matsumoto, R. Symposium on Behavioral Effects of Selective Sigma1 Receptor Ligands: New Therapeutic Opportunities," Montreal, Canada, June 2002

"Development of anti-cocaine agents by targeting sigma receptors," Matsumoto, R. University of Missouri Kansas City, College of Pharmacy, Division of Pharmacology, Kansas City, MO, September 2002

See Also: [Current Grants Awarded to the Faculty of the Department of Pharmaceutical Sciences](#)

▪ **Dr. Julie Johnson Delivers Ashby Lecture**

Dr. Johnson, currently the Professor and Chair of the Pharmacy Practice, Professor of Medicine, and Director of Center for Pharmacogenomics at the University of Florida, spoke on "β-blocker Pharmacogenetics" on February 21st in the OU College of Pharmacy in Oklahoma City.

The lecture was transmitted via videoconferencing to The Schusterman Center in Tulsa. The Ashby Lecture Series brings to the college widely recognized experts to present to the students, faculty, staff, alumni, and friends current information and ideas that shape the profession of pharmacy.

View Archived Video: [Cable/DSL, T1](#) via Windows Media Player

See Also [The Philip C. and Ethel F. Ashby Lecture Series](#)

Alumni News

▪ **Suzette Barry ('02) Update**

New baby girl named Brooke Elizabeth, born on Feb.12th, 2003. She weighed 6lbs 1oz and was 19 inches long. Congratulation Suzette! Friends and classmates can email her at kjbosu@cox.net

▪ **News from Valerie Brown Grober ('80)**

Valerie reports that she has been married to Mark Grober for 24 years, with 2 daughters - oldest now applying to OU College of Pharmacy! Youngest graduating from high school as Senior Class President and heading for OSU in the fall of 2003. Friends and classmates can communicate with her via email at rphgrober@azalea.net.



▪ **Thad Riley ('97) Update**

Thad reports that he is living in Milton, Florida. Friends and classmates can communicate with him via email at thadmr@earthlink.net.

▪ **News Update from James Neal ('66)**

James reports that he started a new pharmacy for Sam's club in Joplin, MO in October 2002. Friends and classmates can contact him via email at jnealdph@hotmail.com. Congratulation James!

OUPharmTECH News

▪ **National Strategy to Secure Cyberspace**

On February 14th, 2003, the Bush administration released its national strategy to secure cyberspace. This strategy is part of the overall effort to protect the United States of America. Its purpose is "to engage and empower Americans to secure the portions of cyberspace that they own, operate, control, or with which they interact. Securing cyberspace is a difficult strategic challenge that requires coordinated and focused effort from our entire society, the federal government, state and local governments, the private sector, and the American people."

Download the [National Strategy for Securing Cyberspace](#) in PDF format or visit the website at <http://www.whitehouse.gov/pcipb/>

▪ **The Law Against Sharing Knowledge**

By Edward R. Johnson

I remember the days when the only licenses that mattered were the ones that allowed you to drive, fish and hunt, or get married. Today it seems that licensing is taking over the world of academic libraries, and putting scholars' ability to exchange information at risk. Stories of draconian contract terms in licenses from software vendors and the publishers of electronic databases and periodical indexes circulate like tall tales -- but they are usually true. We will hear even more such stories if the state legislatures that are considering the Uniform Computer Information Transactions Act, or Ucita, adopt it this spring.

Ucita is a model law, proposed by the National Conference of Commissioners on Uniform State Laws, that would set new rules in all states for licensing software and every other form of digital information. So far, more than 20 states have considered it, but only Maryland and Virginia have adopted it. Most of the states' attorneys general are on record as opposing the law because of its potential for adverse effects on consumers: Ucita would enable vendors to restrict consumers' rights to read license agreements before accepting them, to sue vendors if their products were defective, or to donate a product to charity. But the conference amended the act last year, and its revised version will probably be introduced in many legislatures this year, including those that rejected the original version.

What librarians object to most about Ucita is that it would permit software vendors and publishers to impose a wide range of terms on academics' use of electronic information -- terms that conflict with institutional policies and regulations -- and that the act would tie our hands in negotiating fair licensing agreements. It might even undermine prevailing federal copyright laws: While the act's authors insist that it would not overturn copyright, they have rejected a proposal from several library associations to add wording that clearly asserts the pre-eminence of federal copyright law in "shrink-wrap licenses."

Today, many licenses for electronic publications prohibit librarians from copying the material, lending it to another library, or storing it in an archive. As a university librarian, I generally object to such restrictions unless the vendor makes a



compelling case for them. In the apparent hope that librarians won't read the fine print, software vendors sometimes include even stricter terms in their licenses. In some instances, the language is contrary to state law; in other cases, it violates common sense.

I was shocked, for example, by a license that would have required my library to permit the vendor to remotely install periodic updates to the software, even though those updates might disable other software in our university's computers. Such a requirement is obviously unacceptable. Fortunately, the vendor was willing to negotiate the terms of the license. Another vendor inserted these terms: "Licensee shall notify the publisher of any actual, threatened or suspected infringement of the copyright or other intellectual property rights in any part of the journal or its contents and any third party claim that the journal or its contents infringes the intellectual property of any other person or party." We got that vendor to agree that the library's staff members could not realistically prevent "threatened" or "suspected" copyright infringement. For our part, we agreed to notify the vendor of any actual infringement that we become aware of.

Nearly all libraries engage in contract negotiations before signing license agreements for software, online databases, and other information products in digital form. However, we are already feeling the chilling effects of restrictive licensing terms. With Ucita, our ability to negotiate terms in the interest of library users would be weakened. Ucita would tip the balance further in the direction of the software vendor, while making the terms of mass-market licenses, which libraries cannot negotiate, more enforceable by the courts.

Ucita would replace the public law of copyright with the private law of contracts. Under copyright law, a vendor that sells copies of information has only limited power to control the subsequent use of that information. But a contract under Ucita could prevent the user from reading the license in advance, reinforcing the vendors' view that opening the software box or breaking the shrink-wrap constitutes consent to the license's terms. It would extend that view to the online environment, making clicking on a virtual button the equivalent of opening a physical box.

By burying restrictions inside a closed box, license provisions could also restrict traditional fair use of a product by excluding the rights to quote from a work, to copy a small portion of a work for personal use, or to use the information in a nonprofit, educational setting. Or they could prevent a library from lending electronic material or copying it for the purpose of archiving or preservation. Software vendors seldom consider those activities of libraries when they write mass-market licenses.

When I discuss Ucita with faculty members, students, and administrators, my biggest challenge is convincing them that it is not an esoteric piece of legislation that would affect only someone else. I stress, for instance, that current contract law allows software publishers to select the law of one of the states that has passed Ucita as the law governing a licensing agreement, whether or not the publisher or the licensee is located in that state. That means that educational institutions in a state that has not enacted Ucita could still be subject to its rules. To circumvent the effects of another state's enacting Ucita, the legislatures of Iowa, North Carolina, and West Virginia have passed laws that override Ucita's provisions -- laws that other legislatures might do well to copy.

Librarians have been in the forefront of the opposition to Ucita. We are involved in a national coalition (<http://www.affect.ucita.com>) against the law, along with consumer advocates, insurance companies, retail and manufacturing concerns, and computer professionals. We helped persuade legislatures in a number of states to defeat Ucita by showing how detrimental its passage would be to libraries, universities, businesses, and consumers.

Our colleagues in higher education should not wait until Ucita moves into their states before becoming educated about its potential impact. Academics should create partnerships with other concerned stakeholders in each state, insisting that our universities and professional associations become active in opposing the legislation. Ucita poses real threats to our traditional rights as scholars, researchers, and teachers. The free and unfettered exchange of information that has characterized the scholarly communications system for so long is in danger.

[Edward R. Johnson](#) is dean of libraries at Oklahoma State University.



Does The Internet Foster Shallow Learning?

The Pew report, "The Internet Goes to College: How Students are Living in the Future with Today's Technology" [see [CIT Infobits, September 2002](#)] has provoked discussion of the place of the Internet in college teaching.

In "Does the Internet Foster Shallow Learning?" (AFT ON CAMPUS, February 2003), David Rothenberg, professor of philosophy at the New Jersey Institute of Technology, argues that "The Web makes research look so much easier than it is, because it instantly generates results without teaching students how to evaluate what it promises." He believes that "Technology may well have delivered an unprecedented kind of global village. But only good teaching and careful questioning can help students become the village shaman rather than the village fool."

Steve Jones, professor of communication at the University of Illinois at Chicago, reasons that "the dire predictions that the Internet is the latest medium to encourage laziness, plagiarism, disrupt the classroom, decrease literacy and reduce attention span" are wrongly based on the assumption of the "primacy of face-to-face communication as a medium of interaction and of the value of work as an indicator of learning."

Read both sides of the debate online at http://www.aft.org/publications/on_campus/feb03/speakout.html.

Job Openings

OU MEDICAL CENTER, Children's Hospital

- Clinical Assistant Professor

The University of Oklahoma College of Pharmacy, Oklahoma City

- Pharmacy Technician
- Nuclear Staff Pharmacist
- Clinical Pharmacist

The University of Oklahoma College of Pharmacy, Schusterman Center, Tulsa

- Clinical Assistant Professor
- Clinical Assistant Professor

Eckerd Drug Company

- Pharmacist

Wal-Mart Stores, Inc

- Staff Pharmacist and/or Assistant Pharmacy Manager
- Staff Pharmacist