news along the pike

AUGUST 2002

CENTER FOR DRUG EVALUATION AND RESEARCH

VOLUME 8, ISSUE 3

INSIDE . . .

PIKE'S CORNERS

Patriotic theme highlights Center's awards ceremony

CDER, FDA recognize total of 80 individuals, 49 groups

BY JACKIE BARBER

A total of 80 individuals and 49 groups from the Center received honors at ceremonies held by CDER and FDA in May.

At the Center's Spring Honor Awards ceremony May 31 in Gaithersburg, 76 individuals and 29 groups were recognized. The number included 25 Commissioned Corps officers who responded to the Sept. 11 terrorist attack or the anthrax crisis.

At the FDA ceremony held the same day in Rockville (page 8), four Center employees and 10 groups with CDER representatives were recognized.

At CDER's patriotically themed ceremony, Center Director **Janet Woodcock, M.D.,** along with senior management presented the awards. The Montgomery County Police Color Guard presented the colors, and Kevin Barber sang the national anthem.

"Many of you provided support to the rescue and recovery efforts in New York City and at the Pentagon, while others worked diligently to strengthen our counterterrorism program," Dr. Woodcock said. "The heightened risk of such an attack has brought out the best in us as a nation and in CDER as a public health organization."

Rita Thompson, the director of the Division of Management Services in the Office of Management, introduced each award. Office directors provided an explanation of individual achievements, and Thompson read the citations for the group and team achievements.

(Continued on page 6)

FDA unveils good manufacturing practices initiative

On Aug. 21, FDA announced a significant new initiative to enhance the regulation of pharmaceutical manufacturing and product quality and to bring a 21st century focus to this FDA responsibility.

The initiative, *Pharmaceutical cGMPs for the 21st Century: A Risk-Based Approach,* focuses on FDA's current good manufacturing practice program and will cover veterinary and human drugs, including human biological drug products such as vaccines.

"Americans expect that their medicines will be of the highest quality, and assuring that quality is one of FDA's core missions," said FDA Deputy Commissioner **Lester M. Crawford, DVM, Ph.D.** "FDA's regulatory and quality control systems for pharmaceutical products have become a gold standard for the world, and we Americans should be proud that the quality of the medicines we have available to us and our animals is second to none.

"Any system can be improved upon, however; and, with this risk-based, highly integra-

(Continued on page 14)

State of the Center address scheduled for Sept. 4

BY KAREN ZAWALICK

The Committee for Advanced Scientific Education kicks off the fall semester with the State of the Center address and a rousing game of CDER Jeopardy.

Janet Woodcock, M.D., and **Steven Galson, M.D.,** the Center's director and deputy director, will give the annual talk, restricted to an internal audience, in the auditorium at the University of Maryland Shady Grove campus, Sept. 4, 1:30 p.m. to 3:30 p.m. Light refreshments are planned prior to the presentation. Continuing education credit will not be offered.

Sept. 18, we welcome David Slavin, M.D., head of risk technology at Pfizer who will speak on the tolerability of risk and quantitative risk analysis. Watch office directors and review staff match wits at CDER Jeopardy Sept. 25, 1:30 p.m. to 3:30 p.m., in Parklawn Conference Rooms D and E.

Watch the weekly calendar of events for upcoming programs.

Karen Zawalick is an educational specialist in DTD and CASE executive secretary.

JOE'S NOTEBOOK

Perfect shuffle, lost promise

Anticipating my 40th high school reunion caused some trepidation around the Oliver household. My wife, who knew I had studied Latin and Greek at a small boys' school in Northeast D.C., feared it would be a "geek reunion."

She graphically described to me how "Greek - R = geek."

"Not to worry," I said, "there were only two of us who studied Greek. The other was David Cooper. Sadly, he died not long after we graduated. Plus, we don't want to offend Greeks."

In the meantime, the fellows didn't do much to allay her anxiety when they settled on the Latin phrase "nunc est bibendum" for the reunion motto.

"Not to worry," I said, "it's an old Roman way of saying 'Let's party!' "*

At the reunion, we took time to reflect on the short life of our departed classmate. David was better known for his mathematical genius than partnering with me in Greek. He carried his own pack of colored chalks to graph mathematical equations and kept his watch set to GMT, "the only true time." We frequently didn't understand him, but we watched and listened politely.

The year we graduated, we took a class trip to the beach. We were chaperoned, of course. One evening, we were at the beach house playing cards. ("Geeks to the core!" my wife whispered. "We were underage," I replied.)

To play cards, you have to shuffle them. Some of us could riffle them, sometimes known as a New Orleans or riverboat shuffle. "Suppose you could perform a perfect shuffle," one of us asked. "How many shuffles would it take for the deck to return to its original order, if ever?" We thought about it but went on playing.

David took a piece of paper and a pencil and left. Two hours later, he returned and announced: "Eight."

"Eight what?" we asked.

"Eight shuffles to return the deck to its original order," David said. He then went on to describe the method he used to solve the problem. Our eyes glazed over. We don't recall if he arrived at a general or specific solution.

"That's a hypothesis," one of us said. "We can test it empirically."

So we manually interleaved cards. Sure enough, David was correct.

("True geeks!" my wife said. Was our test influenced by science news of the era? Perhaps. Among other 1962 events was passage of the Kefauver-Harris amendments to the Food, Drug and Cosmetic Act requiring drug manufacturers to provide empirical evidence of the effectiveness of their products.)

My classmate George Wright, now a professor of computer science at a college in Baltimore, was able to put David's math genius in perspective. Several years ago, S. Brent Morris, the chief mathematician at the National Security Agency, gave a recruiting lecture at his school. NSA is the country's largest employer of mathematicians. Morris described how his youthful interest in card tricks led him to work on the mathematics of the perfect shuffle in graduate school. Morris likes to say he has the only doctorate in card shuffling.

The perfect shuffle, it turns out, is a very hard math problem. While one answer, eight, had been discovered empirically early in the 20th century, it wasn't until much later that Morris and other groups were able to solve the math. One group of three mathematicians took six months to solve the general problem in the early 1980s (*Science*, 216:505-506). By the end of the century, solving the math turned out to be important for managing computer memory.

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*Literally: "Now is the time for drinking." This isn't smart-alecky school-boy Latin. It has an impeccably ancient pedigree and is found in an ode by Horace celebrating Octavian's naval victory over Marc Antony and Cleopatra at the Battle of Actium off the west coast of Greece in 31 B.C.

news along the pike

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Photocopies are available in the Medical Library (Parklawn Room 11B-40) and its branches (Corporate Boulevard Room S-121 and Woodmont II Room 3001).

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Have ideas, news or comments to contribute? Please contact a member of the Editorial Board or:

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OMBUDSMAN'S CORNER

Conspiracy theory

BY JIM MORRISON

On the heels of every rash of overblown promises by companies or individuals touting panaceas for the world's ills, comes the day of reckoning. In the day of reckoning for promising drugs comes the epiphany that FDA thinks they don't work—or at least haven't been shown to work. The day of reckoning is soon followed by the day of deflection and the conspiracy theory.

Now, I'm not thinking of any specific case, because there are more than enough examples in the media. It has become commonplace for the beleaguered company, whose stock price rocketed on whispered results of testing for a new drug that would cure cancer, stroke or hangnails, to blame FDA when it all falls apart.

The Web chat rooms are then soon filled with speculation about how big competitors and FDA conspired to block the drug. When the conspiracy theorists get really going, they may include the AMA in the cabal, since if all diseases were cured, doctors would be out of business. Sometimes the conspiracy is given credence by the news media, usually through less than thorough fact gathering.

Face it—we all believe what we want to or are conditioned to believe. We need our heroes and we need our villains. Heroes should be individuals acting in the face of insurmountable odds. Villains should be powerful people or organizations over which the public has virtually no control. That is where FDA comes in. If you are sick, it is more comforting to think that a cure for your illness is out there. It is just FDA that stands in the way of your survival. That leaves the door open for individuals to fight FDA and its co-conspirators, to get the drug released and the patient cured. That allows the helpless to take hope and to take action. It is not comforting to find that the company or people pushing the drug company stock lied, that there isn't any cure and that the patient will die (or that the investors were scammed out of their money).

FDA gets blamed either way. If we approve a drug that is later found to have unexpected side effects, we are criticized as being too fast and sloppy, in the hip pocket of industry or worse. If we fail to approve a drug, we are accused of being overly bureaucratic, stupid and causing the financial markets to collapse.

We in FDA should accept as inevitable that our organization and we as individuals will occasionally be painted as villains. It's the price we pay for taking action in the arena of public health. But it is necessary for all of us to be careful about what we say and to whom.

Further, if we see a drug that is yet to be approved but is being promoted by the sponsoring company far beyond its therapeutic value, we should convey that information to CDER's liaison with the Securities and Exchange Commission—**Debbie Henderson,** director of the Office of Executive Programs. The SEC has the authority to take action if the promotion is coming from the company and if the company has not truthfully informed stockholders. We should also alert DDMAC, because, if the promotion is coming from the company, it may be illegal.

Patients, patients' families, investors, stock analysts and reporters should do their homework and not believe pie-in-the-sky promises of a breakthrough drug that is just around the corner if only FDA would get out of the way. True breakthroughs do happen. Unfortunately, they happen far less often than people hope for. When they do occur, FDA is usually willing and able to speed them through the review process. Everyone should recognize that FDA cannot legally disclose information about pending applications.

What are purported by rumor mills to be leaks from FDA almost always come from within the company, the researchers or elsewhere. If anyone has substantial evidence of an FDA employee leaking information, report it to the FDA's Office of Internal Affairs (7-0243). It is a crime, punishable by dismissal and perhaps prison for FDA staff to leak such information. Conspiracy to break the law is a crime, and, fortunately, is also one rarely committed by FDA employees.

Jim Morrison is the Center's ombudsman.

CDER supports NIH conference on small business innovation research

BY RON WILSON

CDER along with other FDA representatives conducted one-on-one sessions with attendees of the fourth annual National Institutes of Health's Small Business Innovation Research Conference in June.

The conference supports NIH's Small Business Innovation Research Program, a competitive, three-phase system that provides qualified small businesses with opportunities to propose innovative ideas that meet the specific research and development needs of the federal government. The most worthwhile ideas receive NIH development grants.

The program was established by the Small Business Research And Development Act of 1992. Under this law, federal agencies are required to reserve 2.5 percent of their extramural budgets for small businesses to conduct research and development. A small business is one with fewer than 500 employees.

With the growth of the NIH budget, small businesses are showing an increased interest in the program. This year, for example, there is almost $500 million reserved by NIH for the small business grant program. Because FDA's extramural budget is much smaller, funds for the Agency's program are more limited. This fiscal year, FDA had $580,000 available for grants.

Many businesses that attend the annual NIH conference are small pharmaceutical firms, and the products that emerge from the NIH funds have to obtain FDA's approval. NIH invites us to attend the meeting and conduct one-on-one sessions with the attendees.

This is an important opportunity to provide guidance to small businesses at an early stage of their planning and research. More than 800 people attend the conference each year, and many require guidance. The one-on-one sessions with FDA representatives are quite busy.

OTCOM's Ron Wilson heads the Center's Small Business Assistance Program and assisted with the one-on-one sessions.

INFORMATION TECHNOLOGY CORNER

New secure system for remote access; records management

BY DON DUGGAN

If you use a CDER computer on the road or from home, you will soon be using a different but more secure system to access the Center's internal network.

Background: In 1999, Congress mandated that all HHS provide a secure means by which government employees could remotely access internal information resources by the close of calendar year 2002. FDA's Office of Information Resources Management assembled a team of engineers, contractors and center representatives to discuss and evaluate technology available to achieve the task.

In 2000, the working groups completed the task of procuring hardware and software necessary to permit secure access as well as installing and testing the new system. Now referred to as Secure Remote Access Service, or SRAS for short, this system will replace the existing dial-up Remote Access Service. The current system will be in use until the end of 2002.

New secure service: The new system uses technology permitting authorized government employees and contractors to connect to internal information resources through conventional analog dial-up.

In brief, a Windows-based application program, Cisco Virtual Private Network, will be installed on your government-owned computer. This program is responsible for encryption (scrambling) and decryption (unscrambling) of the information being transmitted over public telephone lines. Finally, in order to add additional security, you will have an electronic token and personal identification number to synchronize a unique password that changes each time you log into the CDER network.

Analog dial-up: The conventional dial-up connection over analog telephone lines is the most common type of connection used by CDER employees. Plans to incorporate DSL and cable modem connections will be addressed at a later date. Dial-up uses the software application Cisco VPN described above. You will be required to schedule a service date with OIT for SRAS installation and instruction. We foresee the rollout to CDER beginning in mid-September. The new Secure Remote Access Service is different from what you are used to, but it is far more secure than the conventional non-secure system being phased out.

FDA intranet site for records management

BY SCOTT E. ZEISS

A one-stop intranet site now exists for FDA's records management policies and procedures. Sections on the site include:

- A list of the records liaison officers for each of FDA's centers and headquarters offices.
- FDA staff manual guides related to records management.
- Federal records management laws and regulations.
- FDA's records control schedule, also called the *Pink Book.* This is the Agency's authority that lists the records FDA maintains specific to its mission and operations. It includes instructions for how long they are to be kept and how and when they are to be disposed.
- The general records schedules. These perform the same function as the *Pink Book* but apply to routine administrative records common to most agencies.

Electronic forms are available in PDF format for transferring records to the Federal Records Center. There are links to various records management standards, guidances and training courses. Recent additions to the site include FAQs on general records management and e-mail messages as records. More operational tools will be added in the future.

The site can be accessed through the OITWeb at http://oitweb. Click on Policy on the main page. On the next page, under FDA Policy click on FDA's Records Management Site. The direct link is http://intranet.fda.gov/oirm/records/.

If you have questions about FDA's or CDER's records management policies and procedures, contact me (ZEISSS).

Are you ready to review an electronic submission?

BY TIM MAHONEY

The Electronic Document Room is receiving hundreds of electronic submissions a month. What do you do when you get that e-mail stating that the submission is available for your

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September OIT Training

Monday	Tuesday	Wednesday	Thursday	Friday
2	3	4 Introduction to JMP Session I (C) 1:00 – 4:00	5	6
9	10 Power Point Intro (C) 9:00-12:00 Power Point Charts and Templates (C) 1:00-4:00	11 Introduction to JMP Session II (C) 1:00 – 4:00	12 Access Intro and Tables (C) 9:00-12:00 Access Queries (C) 1:00-4:00	13 Access Form Design (C) 9:00-12:00 Access Report Design (C) 1:00-4:00
16	17	28	19 MS Outlook E-mail (C) 9:00 – 12:00 MS Outlook Email (C) 1:00 – 4:00	20
23	24	25	26	27
30				

Key: Corporate Blvd (C), Park Building (P)
Go to http://oitweb to access training registration and resources.

Drug risk division to play a greater role in drug safety issues

BY PATRICK E. CLARKE

The Division of Drug Risk Evaluation, one of the three divisions in the new Office of Drug Safety (Jan.-Feb. *Pike),* will have more premarket work as a result of the Prescription Drug User Fee Act III, according to **Julie Beitz, M.D.,** the division's director. (See the July *Pike* for a story on the Division of Mediation Errors and Technical Support.)

"PDUFA III won't change our mission, but it will cause increased interaction with the review divisions regarding safety data before the drug is marketed. That's a real change, consulting before the drug is marketed," Dr. Beitz said.

"It's a challenge for us to figure out how to get the right people involved in reviews. No one person is a risk management expert."

Providing consultations on drug safety questions is just one of DDRE's activities. The 42-member division conducts epidemiological analyses, detects and assesses drug safety signals, disseminates important drug safety information and helps formulate risk management programs.

The safety evaluators and epidemiologists in the division distribute findings on adverse drug reactions by:

- Providing recommendations for labeling updates, including stronger warnings.
- Presenting at FDA advisory committee meetings.
- Publishing in peer-reviewed journals.
- Providing information ins support of FDA talk papers and public health advisories.

The division's staff comment on the various approaches used to formulate risk management strategies including:

- Enhanced surveillance for selected adverse events.
- Patient registries.
- Post-marketing epidemiological studies.
- Restricted distribution systems.

"We're particularly proud of our consult record," Dr. Beitz said. Last year 56 percent of the consults came from the Office of New Drugs, 23 percent from other offices within CDER, the Center for Biologics Evaluation and Research and other government agencies, and 21 percent were self-generated, the percent her division is proudest of.

Self-generated consults are accomplished by reviewing the Adverse Events Reporting System database, literature review and epidemiological studies. DDRE staffers were published more than 20 times in 2001 on a variety of drug-related adverse event subjects. The publications include *The New England Journal of Medicine, JAMA, Lancet* and *Pharmacoepidemiology and Drug Safety.*

Division members design, conduct and publish studies using automated medical claims databases. For example, studies conducted under the Cooperative Agreements Program can look at the effect of labeling changes. "We can look in a claims database before and after a major labeling change," Dr. Beitz said. "So, if a drug is marketed and later on liver function tests are recommended for persons taking that drug, we can check and see if testing is being done."

Dr. Beitz anticipates that her group of 23 safety evaluators, 10 epidemiologists, three project managers and other staff members will grow as a result of PDUFA III.

"One priority for us will be the hiring and training of new staff," Dr. Beitz said. "Of course, we hope to do more self-generated reports and publish more."

Dr. Beitz stresses the need for improved communication between her division and review divisions.

"When divisions send us consults, it is critical that they communicate their needs and priorities," she said. "We ask for as much specificity as possible. In fact, we welcome conversations and meetings prior to doing the actual consults to define expectations and the specifics of the data that are needed."

Patrick Clarke is a public affairs specialist in the OTCOM's Division of Public Affairs.

Classes, Just-in-Time training provide skills for electronic submissions

(Continued from page 4)

review in the Electronic Document Room?

If you have the necessary skills to use Adobe Acrobat, Microsoft Office, Windows and statistical applications like JMP, you get to work using the advantages of electronic submissions over paper-based documents. If you have these skills, you can quickly and efficiently use electronic tools to navigate, annotate, search, and copy and paste text, tables and graphics from an electronic submission. If you have not developed that skill set, you need training.

OIT offers NDA Electronic Submissions Training, NDA Electronic Data Analysis Training and Introduction to JMP classes regularly. These classes provide instruction on how to use the electronic tools that make electronic submissions review more efficient than paper review. The Training section of the OIT-Web (http://oitweb) offers class descriptions, calendars and online registration for these courses for CDER reviewers.

But what can you do if you just got the e-mail and the next class is a few weeks away? There is no reason to wait. Contact **Lana Kostecka** (KOSTECKAL) or me (MAHONEYT) to set up Just-in-Time training classes for your review team. These classes are highly successful in delivering the necessary tools to review staff at the necessary time and are customized to your individual group's needs.

But don't take our word for it. Read the comments below from reviewers who have attended the courses.

- "Someone told me that you cannot copy a table from PDF to Word. After taking this class, I realized that not only can you do this, but it is a relatively easy process that would never be possible with paper submissions."
- "I can use the search tools to find instances in a submission that would have taken much longer in paper."
- "I cannot wait for my next electronic submission!"

The authors work in the Office of Information Technology: Don Duggan in the Division of Infrastructure Management and Services; Scott E. Zeiss in the Division of Data Management and Services; and Tim Mahoney on the Technology Support Services Staff.

25 PHS officers honored for responses to terrorist attack, anthrax

(Continued from page 1)

Awards at CDER ceremony

FDA Outstanding Service Award

Charles P. Hoiberg, Ph.D.

Kathy P. Miracco

Crystal L. Rice

Victor F. Raczkowski, M.D.

Norman L. Stockbridge, M.D., Ph.D.

Development Team for Identification of Imported Products and APIs Derived from Potential BSE Ingredients: **Amy L. Kaisler.** PHS Unit Commendation: **CAPT Joan C. Ginetis.**

Patient Safety and Post-Marketing Risk Assessment Leadership Team: **Martin H. Himmel, M.D., Peter Honig, M.D.**

FDA Group Recognition Award

CDER Enantiomer Exclusivity Working Group: **Wilson H. DeCamp, Ph.D., Elizabeth Dickinson, Donald B. Hare, Alexander W. Jordan, Ph.D., Shriniwas G. Nerurkar, Ph.D., Chandra G. Sahajwalla, Ph.D., Robert Temple, M.D.** PHS Unit Commendation: **CAPT Justina A. Molzon.**

CDER's Accreditation Program Team: **Sakti P. Mukherjee, M.D., D.Sc., Chris M. Nguyen, Dale F. Wilcox, Karen R. Zawalick.**

Dissolutions Methods Electronic Database Team: **Larry A. Ouderkirk, Nhan L. Tran, Ph.D.** PHS Unit Commendation: **CAPT David Holovac, LCDR Steven Mazzella, LT Nina Nwaba, CDR Aida L. Sanchez, LT Krista Scardina.**

Division of Library and Information Services: **Carol S. Assouad, Sylvia A. Bullock, Maddy D. Carolan, Wendy W. Cheng, Nichelle Cherry, Lois G. Chester, Wanda J. Clabaugh, Lynette V. Gray, Rhyonda M. Jackson, Eugene Jeffery Jr., Karen M. Kapust, Kathryn W. Kruse, Sandra J. Lee, Carol K. Lytle, Kathrin L. McConnell, Nancy L. Muir, Colleen A. Pritchard, Elizabeth C. Smith, Paul K. Stauffer, John W. Stephens, Monica A. Unger, Elizabeth A. Wack, Barry Wheeler, Sally Winthrop, William B. Woodard Jr.**

FDA Medical Library Electronic Resource Acquisitions Unit: **Lois G. Chester, Karen M. Kapust, Colleen A. Pritchard, Elizabeth C. Smith.**

Guidance to Industry on Inhalational Anthrax Team: **Renata Albrecht, M.D., Jane Axelrad, Shukal Bala, Ph.D., Philip M. Colangelo, Pharm.D., Ph.D., Nancy E. Derr, M. Dianne Murphy, M.D., John H. Powers, M.D.**

Investigations and Preapproval Compliance Branch: **Shawnte L. Adams, Anthony A. Charity, Kristin D. Cook, Janine M. D'Ambrogio, John M. Dietrick, Shirnette D. Ferguson, Melissa J. Garcia, Muralidhara B. Gavini, Ph.D., Bruce W. Hartman, Patricia Alcock Lefler, Edwin D. Melendez, Karen K. Moksnes, LuAnn M. Pallas, Edwin Rivera Martinez, Randall Woods.**

Investigator Inquiry Tracking Group: **Gelind H. Grable, Barry W. Poole.** PHS Unit Commendation: **LCDR Mary E. Kremzner.**

Pediatric Exclusivity Board: **Kim Dettelbach, J.D., Elizabeth Dickinson, J.D., Mary M. Fanning, M.D., Ph.D., John K. Jenkins, M.D., M. Dianne Murphy, M.D., Rosemary Roberts, M.D., Sonal Vaid, J.D., Paul C. Varki, J.D.** PHS Unit Commendation**: CDR Terrie L. Crescenzi, CDR Mary A. Holovac.**

FDA Leveraging/Collaboration Award

Jane A. Axelrad

Christina H. Chi, Ph.D.

Douglas N. Shaffer, M.D.

Ana Szarfman, M.D., Ph.D.

International Regulatory Communication Facilitation Team: **Sharon Sheehan, J.D.** PHS Unit Commendation: **CAPT Justina A. Molzon, LCDR Ann M. Staten.**

PHS Commendation Medals

CDR Paul A. David

CAPT Harvey A. Greenberg

LCDR Andrew S. Haffer

LCDR Mary E. Kremzner

Crisis Response Service Award

For participation in the anthrax response:

CDR Terri L. Crescenzi

LCDR Ellen C. Frank

LT Patricia N. Garvey

LCDR Andrew S. Haffer

CDR Durand M. Hedin

LCDR Lisa M. Hubbard

CDR Lydia V. Kieffer

LT Marci C. Kiester

LCDR Hye-Joo Kim

CDR William C. Koch Jr.

LCDR Houda Mahayni

LT Laura L. Pincock

LCDR James R. Rogers

LT Spencer S. Salis

CAPT Margaret A. Simoneau

LT Samuel Y. Wu

LCDR Anthony M. Zeccola

For work following the terrorist attack on Sept. 11:

LCDR Kevin A. Prohaska

LCDR Mark A. Scheper

CAPT Paul J. Seligman

For combined efforts in responding to the Sept. 11 terrorist attack and the anthrax crisis:

CAPT Timothy W. Ames

LT Sean K. Bradley

LT David T. Diwa

CAPT William A. Hess

LCDR Koung U. Lee

Center Director's Special Citation

Jennie T. Chang, Pharm.D.

CERTS Teaching Module Team: **Peter Honig, M.D., Curtis J. Rosebraugh, M.D.**

Drug Safety and Risk Management Advisory Committee Working Group: **Julie G. Beitz, M.D., Kathleen F. Bongiovanni, David J. Graham, M.D., Martin H. Himmel, M.D., Peter Honig, M.D., Kimberly L. Topper.** PHS Unit Commendation: **CAPT Thomas G. Phillips.**

Staff of the Division of Drug Information: **Barbara J. Daciek, Harold Davis, Donald Q. Dobbs, Gelind H. Grable, Parinda Jani, Peter E. Khalaf, Brenda J. Kiliany, Larry P. Lim, Frederick L. Lockwood, Kelly S. Phelan, Joan K. Powers, Brenda L. Stodart.** PHS Unit

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Patriotic theme highlights CDER's Spring Honor Awards

(Continued from page 6)

Commendation: **LCDR Mary E. Kremzner, LCDR Brenda L. Stodart, LT Catherine C. Yu.**

CDER Special Recognition Award

Charles R. Bonapace, Pharm.D.

Paul C. Brown, Ph.D.

Michael S. Furness, Ph.D.

Frank O. Holcombe Jr., Ph.D.

Edward Miracco

Kathryn A. O'Connell

Mujahid L. Shaikh

Sonal Vaid, J.D.

Xiaoxiong "Jim" Wei, M.D., Ph.D.

Jenny J. Zheng, Ph.D.

Naloxone Review Team: **Suliman I. Al Fayoumi, Ph.D., Nancy S. Chang, M.D., Suresh Doddapaneni, Ph.D., Dale L. Koble, Ph.D., Thomas Papoian, Ph.D., Bob Rappaport, M.D., Sara E. Shepherd.**

September 11 Supplement Review Team: **Anthony Abel, Maureen P. Dillon-Parker, David B. Katague, Ph.D., Patricia Alcock Lefler, Milton J. Sloan, Ph.D.**

Small Pox Vaccination Complications Team: **Barbara Styrt, M.D.** PHS Unit Commendation: **LCDR Kimberly Struble.**

CDER Administrative/Program Management Excellence Award

Susan M. Banks

Aleta A. Crane

Merla Rae Matheny

Matthew A. Zell

CDER Excellence in Communication Award

Isagani M. Chico

Cynthia P. Fitzpatrick

John Franolic, Ph.D.

Kathrin L. McConnell

Paul S. Stinavage, Ph.D.

BACPAC I Training Group: **Eric P. Duffy, Ph.D., Stephen P. Miller, Ph.D., John L. Smith, Ph.D., Kasturi Srinivasachar, Ph.D.**

CMC GRP Training Group: **Karen A. Bernard, Ph.D., Jon E. Clark, Peter H. Cooney, Ph.D., Bonnie B. Dunn, Ph.D., Michael M. Folkendt, Charles P. Hoiberg, Ph.D., Eldon E. Leutizinger, Ph.D., Moo-Jhong Rhee, Ph.D., Bryan S. Riley, Ph.D., Joseph Sieczkowski, Ph.D., John C. Smith, Ph.D.**

CMC Presentation Team at AAPS: **Daniel C. Boring, Rajendra Uppoor, Ph.D.**

CMC Symposium Team: **Karen A. Bernard, Ph.D., June S. Cory, Charlotte Henning, See Lam, Ph.D., Dominick Roselle, Ph.D., John E. Simmons, Ph.D., Laurie C. Watson Mona R. Zarifa, Ph.D.**

Prescription Painkiller Risk Communication Team: **Ayse N. Hisim, Ellen Shapiro.**

Rebetron Labeling Supplement Review Team: **Russell D. Fleisher.** PHS Unit Commendation: **LT Destry M. Sillivan.**

CDER Information Technology Excellence Award

Monif Alqarshi

Margaret S. Cates

James L. Minter, Ed.D.

LAN and Systems Team: **Charles C. Burdette, Craig R. Eatmon, Corrine E. Gomez, Mary Beth Kleinhen, Wendy A. Lee, Stacey L. Nichols, Timothy L. Rigg, Debbie L. Selbert, Scott M. Shippey.**

CDER Leadership Excellence Award

Shukal Bala, Ph.D.

Guirag K. Poochikian

Frederic J. Richman

Rigoberto A. Roca

CDER Excellence in Mentoring Award

Kevin M. Budich

Christine K. Lincoln

Maureen A. Pelosi

CDER Project Management Excellence Award

Kathleen F. Bongiovanni

Barbara J. Gould

Marsha S. Holloman, R.Ph., J.D.

Susmita Samanta, M.D.

Christy L. Wilson

Division of Oncology Drug Products Project Management Team: **Brenda J. Atkins, Amy C. Baird, LT Sean Bradley, LT Patricia Garvey, Dorothy W. Pease, Maureen A. Pelosi, Diane D. Spillman, Erica Sugar, Debra J. Vause, Christy L. Wilson, CAPT Paul F. Zimmerman.**

CDER Support Staff Excellence Award

Patricia E. Carr

Nancy Ann Hansen

Delores Y. Pinkney

CDER Team Excellence Award

Antisense Oligonucleotide Team: **Nallaperumal Chidambaran, Ph.D., Gregory K. Frykman, M.D., NAM, Atiqur Rahman, Ph.D., Lilliam A. Rosario, Ph.D.**

Bosentan Review Team: **Julie G. Beitz, M.D., Maryann Gordon, M.D., Cindy M. Kortepeter, Pharm.D., Karen J. Lechter, Ph.D., Susan Lu, R.Ph., Zelda R. McDonald, Norman L. Stockbridge, M.D., Ph.D., Douglas C. Throckmorton, M.D.** PHS Unit Commendation: **LCDR Andrew Haffer, CDR Kathleen Uhl.**

Desktop Services Building Leads Team: **Peggy L. Goebel, Johnnie Griffin, Ellen B. Messersmith, Colleen F. Ratliffe, Hartsell L. Whitacre Jr.**

Doxycycline Anthrax Evaluation Team: **Charles Anello, Sc.D., Daniel H. Briggs, James F. Brower, Alan S. Carlin, Christopher D. Ellison, Neil R. Hartman, Ph.D., Robbe C. Lyon, Ph.D., Stella G. Machado, Ph.D., Terry W. Moore, Agnes A. Nguyenpho, John C. Reepmeyer, Ph.D., Rosemary Roberts, M.D., Donald J. Schuirmann, Arzu Selen, Ph.D., Donna A. Volpe, Ph.D., Lawrence X. Yu, Ph.D.**

DPADP/ODS Antihistamine Rx-to-OTC Safety Working Group: **Julie G. Beitz, M.D., Min C. Chen, R.Ph., Badrul A. Chowdry, M.D., Charlene M. Flowers, R.Ph., Lydia I. Gilbert-McClain, M.D., Patrick F. Guinn, Susan S. Johnson, Pharm.D., Ph.D., Claudia B. Karwoski, Pharm.D., Cindy M. Kortepeter, Pharm.D., Lois A. LaGrenade, M.D., Ph.D., Charles Lee, M.D., Susan Lu, R.Ph., Richard A. Nicklas, M.D., Kathleen M. Phelan, R.Ph., Marilyn R. Pitts,**

(Continued on page 8)

CDER ceremony recognizes 76 individuals, 29 groups

(Continued from page 7)

Pharm.D., Gretchen Trout, Joyce P. Weaver, Pharm.D. PHS Unit Commendation: **CAPT Michael Johnston, CDR Mary E. Purucker, CDR Anne E. Trontell, CAPT Joslyn R. Swann.**

Network Team: **Tony T. Chuo, Richard J. Johnson.**

ODE IV Labeling Initiative Group: **Renata Albrecht, M.D., Mercedes Albuerne, M.D., CDR Robin E. Anderson, Elizabeth A. Duvall-Miller, CDR Steven Hirschfeld, Khai M. Phi, Melissa M. Truffa, R.Ph.**

ODS Strategic Transition Planning Group: **Julie G. Beitz, Kathleen Bongiovanni, Martin Himmel, M.D., Peter Honig, M.D.** PHS Unit Commendation: **CAPT Jerry Phillips, CDR Anne Trontell.**

Office of Biostatistics Readjudication Survey Team: **Charles Anello, Sc.D., Karen M. Higgins, Sc.D., Roswitha E. Kelly, Thomas J. Permutt, Ph.D., Yi Tsong, Ph.D.** PHS Unit Commendation: **CAPT Stephen E. Wilson.**

Office of Generic Drugs Regulatory Support Branch Bioterrorism Team: **Margo L. Bartle, LT Gregory Davis, LCDR Beth Fritsch, CAPT Harvey Greenberg, Norma J. Grimes, Eda E. Howard, Saundra T. Middleton, LTJG Paras Patel, LCDR Martin H. Shimmer II, LTJG Emily S. Thomas.**

OxyContin Response Team: **Suliman I. Al Fayoumi, Ph.D., Lisa E. Basham-Cruz, Laura Bradbard, Silvia N. Calderon, Ph.D., Patrick S. Durkin, Sharon H. Hertz, M.D., Dale L. Koble, Ph.D., Kathleen M. Kolar, Deborah B. Leiderman, M.D., Mary E. Ortuzar, Martin L. Pollock, Pharm.D., Bob A. Rappaport, M.D., Michael Theodorakis, Kimberly L. Topper.** PHS Unit Commendation: **CDR Mark W. Askine, LT Spencer Salis.**

Regulatory Project Management Team of DGCDP: **Alice Marie Kacuba, Paul Everette Levine Jr., R.Ph., Melodi J. McNeil, R.Ph., Karen Oliver, Cheryl Perry, Brian K. Strongin, R.Ph., Maria R. Walsh, Helen A. Wilson.**

Reorganization Administrative Team: **Tanya L. Abbott, Mary Anne Carter, Bibi F. Jakrali, Maureen D. Majors, Sandy Van Buskirk.**

Stability Technical Committee and Statistics Working Group in CDER: **Michael Adams, Richard C. Adams, Ali H. Al Hakim, Charles Anello, Sc.D., Chi-wan Chen, Ph.D., Wen Jen Chen, Ph.D., Peter H. Cooney, Ph.D., David J. Cummings, Kenneth J. Furnkranz, Hsien Ming J. Hung, Roswitha E. Kelly, Hossein S. Khorshidi, Ph.D., Dale L. Koble, Ph.D., David B. Lewis, Ph.D., Karl K. Lin, Ph.D., Tsae Yun Daphne Lin, Ph.D., Nashed E. Nashed, Ph.D., Robert T. O'Neill, Ph.D., Shrikant N. Pagay, Ph.D., Ernest G. Pappas, Guirag K. Poochikian, Ph.D., Mohammad A. Rahman, Ph.D., Barry Rothman, Donald J. Schuirman, Ph.D., Robert Seevers, Ph.D., Harold V. Silver, Kasturi Srinivasachar, Ph.D., Jeb S. Taylor, Ph.D., Michael Theodorakis, Ph.D., Yi Tsong, Ph.D., Charlotte Yaciw, Florian W. Zielinski, Ph.D.** PHS Unit Commendation: **CAPT David Hussong, CAPT Yana Mille.**

Awards at FDA ceremony

Commissioner's Special Citation

Ciprofloxacin Review Team: **Funmi Ajayi, Ph.D., Renata Albrecht, M.D., Shukal Bala, Ph.D., Leo Chan, R.Ph., Gary Chikami, M.D., Peter A. Dionne, Ken Hastings, Ph.D., Karen M. Higgins, Sc.D., Stephen G. Hundley, Ph.D., Joette M. Meyer, Pharm.D., M. Dianne Murphy, M.D., Andrea Myerhoff, M.D., Terry S. Peters, DVM, Rigoberto A. Roca, M.D.** PHS Award (pending approval): **LCDR Valerie E. Jensen.**

FDA Award of Merit

M. Dianne Murphy, M.D.

Caspofungin Review Team: **Funmi Ajayi, Ph.D., Renata Albrecht, M.D., Shukal Bala, Ph.D., Marc W. Cavaille-Coll, M.D., Ph.D., Leo Chan, R.Ph., Mary Dempsey, Cheryl A. Dixon, Mark J. Goldberger, M.D., MPH, Kenneth L. Hastings, Karen M. Higgins, Sc.D., Gene W. Holbert, Ph.D., Karin M. Klunk, Dorota M. Matecka, Ph.D., Owen G. McMaster, Ph.D., Eileen E. Navarro Almario, M.D., Rigoberto A. Roca, M.D., David L. Roeder, Leonard V. Sacks, M.D., Norman R. Schmuff, Ph.D., Judy A. Staffa, Ph.D., R.Ph.** PHS Award (pending approval): **LCDR Ellen C. Frank, LCDR Houda Mahayni, LCDR James R. Rogers, CDR Kathleen Uhl.**

CDER Counter-Terrorism Response Team: **Funmi Ajayi, Ph.D., Renata Albrecht, M.D., John J. Alexander, M.D., Raman K. Baweja, Ph.D., Charles R. Bonapace, Ph.D., David C. Bostwick, Philip M. Colangelo, Ph.D., Chuck K. Cooper, M.D., Edward M. Cox, M.D., Rose E. Cunningham, Sandra N. Folkendt, Joanne M. Holmes, Alice Kacuba, Russell G. Katz, M.D., Joyce A. Korvick, M.D., MPH, John A. Lazor, Pharm.D., Brad G. Leissa, M.D., Patricia Y. Love, M.D., Min Lu, M.D., Fred Marsik, Ph.D., Joette M. Meyer, Ph.D., Andrea Meyerhoff, M.D., Christine Moser, M. Dianne Murphy, M.D., Robbin M. Nighswander, R.Ph., Francis R. Pelsor, Ph.D., Kellie S. Reynolds, Ph.D., David L. Roeder, David B. Ross, M.D., Ph.D., Leonard Sacks, M.D., Alfredo R. Sancho, Ph.D., Arzu Selen, Ph.D., Janice Soreth, M.D., Paul Stauffer, Barbara Styrt, M.D., Jean W. Temeck, M.D., Susan D. Thompson, M.D., Monica A. Unger, Sally Winthrop, Hong Zhao, Ph.D.** PHS Award (pending approval): **CDR Mark W. Askine, CAPT Harry W. Haverkos, CAPT Dianne L. Kennedy, CAPT Robert K. Leedham Jr., CAPT David G. Orloff, LCDR Jim R. Rogers, CDR Kathleen Uhl.**

CDER Drug Shortage Team: **Barbara J. Daciek, R.Ph., Mark J. Goldberger, M.D., MPH, Lorene M. Kimzney, Larry P. Lim, Pharm.D., Barry W. Poole, R.Ph., Michael J. Verdi.** PHS Award (pending approval): **CAPT Harvey A. Greenberg, LCDR Lisa M. Hubbard, LCDR Valerie E. Jensen.**

Drug GMP Training Group: **Arlene Badillo, Mildred Barber, Nicholas Buhay, Concepcion Cruz, Jorge Guadalupe, Edwin D. Melendez, Ivis Negron, Rafael Nevarez, Edwin Rivera-Martinez, Rebecca Rodriguez, Marga-**

(Continued on page 9)

WHITE OAK CONSOLODATION

Community group holds open house for Center employees

BY SHERUNDA LISTER

"Let's roll," seemed to be Betsy Bretz's rallying cry as she led the June 26 open house meeting for CDER employees on the development of FDA's White Oak campus. Bretz is co-chair and one of the consumer representatives on Labquest, a community-based group that acts as a liaison for the parties involved in the consolidation.

Labquest, now in its seventh year, has representatives from the community, FDA, the General Services Administration, and county and state elected officials. About 45 people including Labquest members attended the open house at WOC II. The meeting was a chance for CDER employees to meet the group, get an update on the White Oak construction and ask questions.

The meeting provided updates on funding, legislative, transportation, construction and recreation matters.

Phase I—construction of the laboratory building for CDER and the Center for Devices and Radiological Health—has begun. The lab is expected to be completed and ready for occupancy in 2003.

Phase II—office space for most of CDER—is expected to be completed and ready for occupancy in 2005.

Funding for Phase III of the construction appears forthcoming pending final authorization. Phase III construction includes the CDRH lab building and the completion of the third and fourth floors of the CDER lab building as laboratories. Because CDRH is expected to occupy part of the CDER lab building, the structure is expected to be named the Life Sciences Building.

Labquest addressed issues of concern to most CDER employees like parking and public transportation. The group has worked with Montgomery County to provide busses from the Silver Spring Metro station onto the campus. Portions of New Hampshire Avenue and Powder Mill Road are expected to be widened to help accommodate the additional traffic flow.

On-site parking is still being finalized. The plan calls for several single- and multi-level parking lots to be built on the site but the final ratio of parking spaces to employees is still be negotiated with the appropriate licensing department.

The large deer population on the campus grounds may come as a surprise to many FDA employees. For animal and people safety, Labquest is looking at available options.

When asked about Maryland Sen. Paul Sarbanes' hopes for the consolidated campus, Jeanie Lazerov a field representative for his office responded: "We're looking forward to having a first-class facility for the efficient operation of a world-class agency with world-class scientists and employees."

Within the next few months, Labquest plans to hold a meeting to brief all FDA employees on recent changes to the plans for the consolidated campus.

Sherunda Lister is a public affairs specialist in OTCOM.

FDA ceremony honors 4 CDER employees, 10 Center groups

(Continued from page 8)

rita Santiago, Myriam Sosa, Andres Toro, Maridalia Torres. PHS Award (pending approval): **CAPT Justina A. Molzon, CAPT James P. Stumpff.**

Federal Register Notice on Doxycycline and Penicillin G Procaine Group: **Funmi Ajayi, Ph.D., Renata Albrecht, M.D., Shukal Bala, Ph.D., Martha A. Carter, Nichelle Cherry, Philip M. Colangelo, Pharm.D., Ph.D., Edward M. Cox, M.D., MPH, Peter A. Dionne, Rosemary Johann-Liang, M.D., Joette M. Meyer, Wayne H. Mitchell, Christine Moser, Nancy L. Muir, M. Dianne Murphy, M.D., John H. Powers, Rigoberto A. Roca, M.D., Sarah J. Singer, Joseph Toerner, M.D., Ron T. Wassel, Pharm.D.** PHS Award (pending approval): **LCDR Ellen C. Frank.**

Prescription Drug User Fee Waivers Team: **Andrea C. Masciale, Susan H. O'Malley, Olivia A. Pritzlaff, Tawni M. Schwemer.** PHS Outstanding Unit Citation, **CAPT Beverly J. Friedman, CDR Michael D. Jones**

FDA Group Recognition Award

FDA/NIH Antibiotic Working Group: **Renata Albrecht, M.D., Philip M. Colangelo, Ph.D., Richard Davey, M.D., Dennis Dixon, Ph.D., Sandra N. Folkendt, Vee J. Gill, Ph.D., Mark J. Goldberger, M.D., Joanne M. Holmes, Brad G. Leissa, Fred J. Marsik, Ph.D., Henry Masur, M.D., Andrea Meyerhoff, M.D., M. Dianne Murphy, M.D., Robert E. Osterberg, Ph.D., Alice Pau, Pharm.D., Christine Sizemore, Ph.D., Janice M. Soreth, M.D., Susan Thompson, M.D., Mary Wright, M.D., Sarah Wynne, M.D.** PHS Award (pending approval): **CAPT Philip Coyne Jr., RADM Henry C. Lane.**

Post-Marketing Surveillance Working Group: **Jim F. Allgire, Charles M. Breen, Sarah Bristow, Rick L. Friedman, Ravi S. Harapanhali, Ph.D., Samuel K. Mathew, Michael C. Olson, Jim Rowell, Thomas Savage, Andrea J. Schaub, Ralph J. Schmid, Michael J. Smela Jr., Rona J. Stromberg, Vaiyapuri Subramaniam, Pharm.D., Yi Tsong, Ph.D., Leonard Valenti, Benjamin Westenberger.**

Potassium Iodide Guidance Working Group: **David Becker, Andre Bouville, Ph.D., Rose E. Cunningham, Alfred Eric Jones, M.D., Jacob Robbins, M.D., Daiva Shetty, M.D., Bruce V. Stadel, M.D., Jean W. Temeck, M.D., Donald L. Thompson, Jan Wolff, M.D., Robert J. Yaes.** PHS Unit Commendation: **CAPT Robert K. Leedham Jr.**

2002 DHHS Secretary's Award for Distinguished Service

Steven I. Hirschfeld, M.D., Ph.D.

PHS Outstanding Service Medal

CAPT David G. Orloff

Forty Years of Career Service

Charles R. Brownell

Jackie Barber is the Center's incentive awards officer.

Volunteer faculty for 2001-2002 academic year honored

BY CHRIS NGUYEN

The Faculty Recognition Awards Ceremony for the 2001-2002 academic year was held on May 14 to recognize and honor FDA employees who planned, developed and taught courses to their colleagues. They provided subject matter knowledge, conducted research and developed lesson plans on their own time and without compensation in addition to performing their current jobs. Their efforts support CDER's mission by providing training and orientation to CDER staff.

To say "thank you" to CDER faculty for their hard work, the Division of Training and Development in the Office of Training and Communications holds an annual recognition ceremony. The education and training mission of the Center cannot be fulfilled without their support.

Opening remarks were provided by **Nancy D. Smith, Ph.D.,** OTCOM's director, and .**Janice Newcomb,** DTD's director. The awards were presented by DTD's project managers.

The courses, retreats, workshops and individual faculty recognized were:

An Introduction to the Center for Drug Evaluation and Research—CDER 101: **Kathleen Bongiovanni, Nicholas Buhay, Igor Cerny, Pharm.D., Jean-Ah Choi, Pharm.D., John Dietrick, Antoine El-Hage, Ph.D., John Friel, J.D., Roger A. Goetsch, Pharm.D., David J. Graham, M.D., MPH, Roger C. Gregorio, Debbie Henderson, David Hilfiker, Carol Holquist, R.Ph., Carolyn L. Hommel, David A. Konigstein, David A. Lepay, M.D., Ph.D., Norman Marks, M.D., Andrea Masciale, Justina A. Molzon, Pharm., J.D., Toni Piazza-Hepp, Pharm.D., Barry W. Poole, Lisa Rarick, M.D., Fredric J. Richman, Terri F. Rumble, Joseph Salewski, Ellen Shapiro, Ted Sherwood, John E. Simmons, Ph.D., Nancy D. Smith, Ph.D., Kimberly Littleton Topper, Robert L. West, James Wilson, Sally Winthrop, Janet Woodcock, M.D.**

Basic Presentation Skills: **R. Daniel Benz, Peter Cooney, Robin Huff, Ph.D., Lana L. Pauls, MPH, Thomas Permutt, Ph.D., Victor Vail, Steve Wilson, Dr.P.H.**

Basic Statistical Methods: **Ruthie Davi, Karen M. Higgins, Sc.D., Kate Meaker, Dionne L. Price, Ph.D., George Rochester, Ph.D.**

Basic Topics in Applied Statistics: Survival Data Analysis: **Kate Meaker.**

Best Pharmaceuticals for Children Act Training: **Grace N. Carmouze, Terrie Crescenzi, Christine Moser, Dianne Murphy, M.D., Rosemary Roberts, M.D.**

Carcinogenicity Course: **Lawrence F. Sancilio, Ph.D.**

CDER Administrative Management Training for Senior Managers: **Tanya Abbott, J. Richard Allen, Ph.D., Susan S. Allen, M.D., MPH, Paula Bourkland, Deborah Breedan, Debbie Henderson, MSN, Bobbi Jones, Michelle L. Mathias, Linda McGee, Jamie Metz, William Oswald, Tammy Russell, Rixie Scott, Rita Thompson, Sandi Van Buskirk, Rich Vengazo, Jack Walsh.**

Clinical Reviewers Retreat: **Thomas Abrams, Marcello Barreiro, M.D., Eric Bastings, M.D., Bill Boyd, M.D., Peter Bross, M.D., Kim Colangelo, Edward M. Cox, M.D., MPH, Gerald Dal Pan, M.D., Mandy Eisemann, Cindy Fitzpatrick, John Friel, J.D., David Gan, M.D., Jennifer Harris, M.D., Rob Harris, M.D., Ph.D., Sharon H. Hertz, M.D., Mark S. Hirsch, M.D., Steven Hirschfeld, M.D., Ph.D., Raymond Joseph, M.D., Len Kapcala, M.D., John V. Kelsey, DDS, Scheldon Kress, M.D., Deborah B. Leiderman, M.D., Markham C. Luke, M.D., Ph.D., Armando Oliva, M.D., William Oswald, Philip H. Sheridan, M.D., Nancy D. Smith, Ph.D., Susan J. Walker, M.D.**

Committee for Advanced Scientific Education: **Hamid R. Amouzadeh, Ph.D., Aisar Atrakchi, Ph.D., Shukal Bala, Ph.D., Narayana Battula, Ph.D., Karen Davis-Bruno, Ph.D., Mamta Gautam-Basak, Ph.D., Karen M. Higgins, Sc.D., Markham C. Luke, M.D., Ph.D., Joette Meyer, Ph.D., Thomas F. Oliver, Ph.D., Mary Purucker, M.D., Ph.D., John Quinn, M.S., Curt Rosebraugh, M.D., MPH, Sandip K. Roy, Ph.D., Arzu Selen, Ph.D., Philip H. Sheridan, M.D., Milton J. Sloan, Ph.D., Rajeshwari Sridhara, Ph.D., Chair, Kathleen Uhl, M.D., Sue Jane Wang, Ph.D., Josie Yang, DDS, Ph.D., Mona Zarifa, Ph.D.**

Derm and Dental Journal Club: **Marhkam C. Luke, M.D., Ph.D., Hon-Sum Ko, M.D.**

Design, Conduct and Review of Clinical Trials: **Aloka G. Chakravarty, Ph.D., Victor Raczkowski, M.D., Kathy M. Robie-Suh, M.D., Ph.D., Philip H. Sheridan, M.D., Robert J. Temple, M.D., Grant Williams, M.D., Steve Wilson, Dr.P.H.**

Division of Metabolic and Endocrine Drug Products Journal Club: **Bruce Stadel, M.D., MPH, Joanna K. Zawadzki, M.D.**

FDA/DIA Overview of the Pharmaceutical Industry: An FDA-Industry Dialog on the Drug Development Process: **Susan S. Allen, M.D., MPH, Lisa Rarick, M.D., Nancy D. Smith, Ph.D.**

Human Pregnancy Outcome Data: **J. Edward Fisher, Jr., Ph.D., Dianne L. Kennedy, MPH, Sandra Kweder, M.D., David Morse, Ph.D.**

IMS: Data View: **Katrina Garry, Martha O'Connor.**

IMS: In Search of Solutions: **Katrina Garry, Martha O'Connor.**

IND Regulations and Policies: **Tawni M. Schwemer, Bronwyn Collier, Melodi J. McNeil, Robbin Nighswander, Cathie Schumaker, Melissa Truffa.**

Inhalation Drug Product: **Wallace P. Adams, Ph.D., John Alexander, M.D., Michael G. Bazaral, Ph.D., M.D., Elizabeth Koller, M.D., Lydia McClain, M.D., Robert J. Meyer, M.D., Luqi Pei, Ph.D., L. Ross Pierce, M.D., Mary Purucker, M.D., Ph.D., Brian Rogers, Ph.D., Lawrence F. Sancilio, Ph.D., Gur Jai Pal Singh, Ph.D., Eugene J. Sullivan, M.D.**

International Foreign Regulator Series: **Andrea Feight, DMD, MPH, Justina A. Molzon, Pharm.D.**

Introduction to IMS Health Information: **Katrina Garry, Martha O'Connor.**

NDA Regulations and Policies: **Bronwyn Collier, Julieann DuBeau, MSN, Mi-**

(Continued on page 11)

PHARMACOLOGY/TOXICOLOGY CORNER

Spring retreat eyes drug-device combinations, pediatric issues

BY ELIZABETH HAUSNER, DVM

The Center's semi-annual retreat for pharmacology/toxicology reviewers included regulatory updates from standing subcommittees of the Pharm/Tox Coordinating Committee, a scientific update on drug-device combinations and an entire afternoon session devoted to pediatric issues during preclinical assessment.

These retreats focus on regulatory issues, new technology and integrated education in areas impacting the drug review process. The June 19 retreat was organized and arranged by **Fred Alavi, Ph.D., Hanan Ghantous, Ph.D., Pat Harlow, Ph.D., Wafa Harrouk, Ph.D., Elizabeth Hausner, DVM, Tom Papoian, Ph.D., Adele Seifried, M.S., Jui Shah, Ph.D., William Taylor, Ph.D.,** and **Suzanne Thornton, Ph.D.**

Dr. Ghantous, the retreat planning committee chair, gave the opening remarks. Dr. Ghantous is from the Division of Anti-Inflammatory, Analgesic and Ophthalmic Drug Products. Supervisors introduced new reviewers. After a team building exercise, **Robert Osterberg, Ph.D.,** the acting deputy associate director for pharmacology/toxicology, gave an update of the current pharm/tox issues. The search for a new associate director is ongoing and hopefully will be completed in a few months.

The pharm/tox group is also trying to be proactive about the projected retirement within the next five years of many senior reviewers. The Education Committee and the associate director are designing multi-faceted programs to mitigate the effects of losing so much historical and institutional memory. Dr. Osterberg also discussed the status of several guidances, MAPPs and the good review practices format.

Regulatory updates

Several of the standing pharm/tox subcommittees provided summaries of their most recent activities in a session organized by **Pat Harlow, Ph.D.,** from the Division of Cardio-Renal Drug Products. Additional committees will present their updates at the fall retreat. The committees

(Continued on page 12)

Division of Training and Development honors volunteer faculty

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chael M. Folkendt, Ellen C. Frank, Melodi J. McNeil, Robbin Nighswander, David L. Roeder, Terri F. Rumble, Cathie Schumaker.

New Drug Development in the United States: **Brenda Kiliany, Pharm.D., Mary Kremzner, Pharm.D, Larry Lim, Pharm.D., Barry W. Poole.**

New Employee Orientation: **Laura Alvey, Laura Bradbard, Magdalene D. Carolan, Roy Castle, Heather Chafin, Nichelle Cherry, Lois G. Chester, MLS, Jean-Ah Choi, Pharm.D., Eric P. Duffy, Ph.D., Elaine Frost, Mike Jones, Deborah L. Kallgren, Karen Kapust, Lana G. Kostecka, Kathy Kruse, Andrea Masciale, Judit Milstein, Wayne H. Mitchell, Brian Pendleton, Crystal L. Rice, Terri F. Rumble, Ellen Shapiro, Ted Sherwood, John E. Simmons, Ph.D., Brad Stone, Michael Theodorakis, Sally Winthrop, Bob Young.**

New Reviewers Workshop: **Fred K. Alavi, Ph.D., Magdalene D. Carolan, Igor Cerny, Pharm.D., Kim Colangelo, James Tristan Cross, Susan M. Cruzan, Ruthie Davi, Gregg Davis, Antoine El-Hage, Ph.D., Amy L. Ellis, Ph.D., Steven K. Galson, M.D., MPH, Joseph Hanig, Ph.D., Mark S. Hirsch, M.D., Dena Hixon, M.D., Elaine J. Hu, Claudia B. Karwoski, Pharm.D., Margie Kober, Kathleen Kolar, Kofi A. Kumi, Ph.D., Randy Levin, M.D., Sheldon Markofsky, Ph.D., Frederic J. Marsik, Ph.D., Kate Meaker, Judit Milstein, Jim Morrison, Armando Oliva, M.D., Lana L. Pauls, MPH, Gerald M. Rachanow, P.D., J.D., Lisa Rarick, M.D., John R. Senior, M.D., Nancy D. Smith, Ph.D., Lisa L. Stockbridge, Ph.D., Anne Trontell, M.D., MPH, Michael J. Verdi, Janet Woodcock, M.D.**

Pharmacogenetics: **Susan Jerian, M.D., Lawrence Lesko, Ph.D., Frank D. Sistare, Ph.D., Robert J. Temple, M.D.**

Presenting at Advisory Committee Meetings: **Heather Chafin, Lana G. Kostecka, Gemma Kuijpers, Ph.D., Marianne Mann, M.D., Andrea Masciale, Joy Mele, Michael Ortwerth, Ph.D., Thomas Permutt, Ph.D., Kathleen Reedy, Kimberly Littleton Topper.**

Regulatory Science: **E. Dennis Bashaw, Pharm.D., Browyn Collier, Antoine El-Hage, Ph.D., Charles P. Hoiberg, Ph.D., Thomas Laughren, M.D., Melissa Moncavage, Robert E. Osterberg, Ph.D., Grant Williams, M.D., Steve Wilson, Dr.P.H.**

Searching PubMed: **Nichelle Cherry, Lois G. Chester, Nancy L. Muir, Colleen Pritchard.**

The Workshop for Non-Inferiority Trials: **Charles Anello, Sc.D., Erica Brittain, Ph.D., George YH Chi, Ph.D., Lisa A. Kammerman, Ph.D., Marianne Mann, M.D., S. Edward Nevius, Ph.D., Robert T. O'Neill, Ph.D., Robert J. Temple, M.D., Susan Thompson, M.D., Marc K. Walton, M.D., Ph.D.**

Topics in Applied Statistics: Issues in Design and Analysis of Diagnostic Clinical Trials: **Michael Welch, Ph.D., Victor Raczkowski, M.D.**

Topics in Clinical Trials: **Susan S. Ellenberg, Ph.D., Judith A. Racoosin, M.D., MPH, Robert J. Temple, M.D.**

Videoconferencing Skills Cours: **Ayse N. Hisim, Pam Winbourne.**

Videoconferencing/Teletraining and Satellite Broadcast Focal Points: **Arthur Bryant, James Black, John Black, Mandy Eisemann, John Franolic, Patricia E. Long-Bradley, Merla Matheny, Jody Moore, Paul Neff, Laura Riddle, Doris Ann Robinette, Christine Shipe, John Schupp, Adolph Vezza, Ruth Warzala, Donnie Wisner.**

Chris Nguyen is a training specialist in DTD.

Spring pharm/tox retreat focuses on regs, science, pediatrics

(Continued from page 11)

represented and those presenting were:

- *PTCC Educational Committee,* **Robin Huff, Ph.D.,** (Division of Pulmonary and Allergy Drug Products).
- *Genetic Toxicology Committee,* **Anita Bigger, Ph.D.,** (Division of Anti-Viral Drug Products).
- *Inactive Ingredients Committee,* **Bob Osterberg, Ph.D.,** (Division of Anti-Infective Drug Products).
- *Information Technology Subcommittee,* **Tom Papoian, Ph.D.,** (Division of Cardio-Renal Drug Products).
- *Safety Pharmacology Subcommittee,* **John Koerner, Ph.D., (**DCRDP).

A corollary to the safety pharmacology update came afterwards when Dr. Koerner discussed the Draft ICH S-7B guidance, *Safety Pharmacology Studies for Assessing Potential for Delayed Ventricular Repolarization (QT Interval Prolongation) by Human Pharmaceuticals.* The goal of this guidance is to protect clinical-trial participants and patients from lethal drug-induced arrhythmias. This combined regulatory and scientific update emphasizes the importance of careful non-clinical assessment of cardiac repolarization. Recommendations on study types and general principles are provided to help in designing a non-clinical program for the identification of potential hazards.

Scientific update

Investigational devices that also provide localized drug delivery are the motivating force behind a collaborative inter-center effort involving the Center for Devices and Radiological Health and CDER. This effort involves from CDRH: **Jonette Foy, Ph.D., John Hyde, M.D., Ph.D., Donald Jensen, DVM, M.S., John Stuhlmuller, M.D.,** and **Carolyn Vaughan, M.S.** Those from CDER include **Albert DeFelice, Ph.D., Kasturi Srinivasachar, Ph.D., Shari Targum, M.D., Belay Tesfamariam, Ph.D.** and **Douglas Throckmorton, M.D.**

Dr. Tesfamariam, from DCRDP, discussed the scientific rationale behind the drug-eluting stents used for reducing restenosis in coronary arteries following revascularization.

Drug elution from the polymer that coats a stent depends on multiple factors including biocompatibility, the amount of drug loaded, rate and duration of release and the residual drug.

The safety assessment of these devices includes three separate components: the stent, the drug, the carrier polymer and the summation of those components. The assessment of toxicity involves local vascular, regional myocardial and systemic effects and includes quantitative angiograms and histomorphometry. Several issues under consideration include the long-term efficacy (once the drug is completely eluted), long-term safety, appropriate duration of a preclinical study and relevance to clinical cases.

Pediatrics in pre-clinical assessment

The afternoon was devoted to a workshop on pediatric issues. The speakers were: **Karen Davis-Bruno, Ph.D.,** from the Division of Metabolic and Endocrine Drug Products and co-chair of the PTCC Pediatric Working Group; Mark Hurtt, Ph.D., from Pfizer Global Research and Development; **Rosemary Roberts, M.D.,** from CDER's Office of Counter-Terrorism and Pediatric Drug Development; and **Tim Link, Ph.D.,** from DCRDP.

It is estimated that there is inadequate information regarding pediatric use of approximately 75 percent of prescription medications. Data is not accrued in a systematic fashion to learn how to administer drugs in a safe and efficacious manner, so every use is essentially an experiment. A history of tragedies led to the current regulatory position that careful study in clinical trials may be a better method of pediatric drug development.

There were points of commonality in the three presentations. The species differences in development were stressed as important considerations in designing both safety and efficacy studies. Pharmacokinetics and pharmacodynamics influence growth and development while concurrently growth and development also influence PK/PD. Age and physiology differences preclude simply scaling down adult dosages for pediatric use. Examples were given of age-related differences in drug metabolism and interspecies differences in organ system development.

The mechanics of working with juvenile animals must also be considered. The nuts and bolts of different routes of drug administration were discussed as well as some of strengths and limitations of each. Study design for litter-bearing and nonlitter-bearing animals was an issue also. The current database is limited but indicates that juvenile studies are technically possible to conduct and can provide useful safety data.

Dr. Roberts presented statistics and the status of pediatric submissions and studies requested up to the present time as well as the impact on labeling. Although the 1998 Pediatric Rule requiring studies in children has been challenged by the Association of American Physicians and Surgeons and the Competitive Enterprise Institute and Consumer Alert, it remains in effect.

At the end of the day, Dr. Link presented a case study: "Endothelin Receptor Antagonists: Class Effects on Fertility and Development." As background, he first discussed the basic biology of endothelin, the isoforms and related peptides, the endothelin receptors and endothelin converting enzyme and progressed to the therapeutic applications of manipulating this system.

The fetal effects of ETA antagonism include fetal death, agnathia to micrognathia, aglossia to microglossia, aplasia of facial and skull bones, cardiac defects, thyroid and thymus abnormalities. Another adverse effect is an increased incidence of tubular dilatation, degeneration and atrophy. It was not clear that the testicular effects were in fact a class effect until the DCRDP made re-evaluation of the existing data a priority. It then became apparent from a focused review of the data that each drug showed the same adverse effect profile. The presentation ended with a series of questions for breakout discussion among the reviewers.

The Spring 2002 Pharm/Tox Retreat was an excellent opportunity for reviewers from different divisions to compare notes. The fall retreat will have a neurotoxicology theme.

Elizabeth Hausner is a pharmacologist in the Division of Cardio Renal Drug Products

COUNTERTERRORISM CORNER

OTR studies home preparation of pediatric doses of stockpiled drugs

BY MARY JANE MATHEWS

Last year's anthrax attacks, fears of other biological attacks and the potential for attacks on nuclear facilities or the explosion of radioactive dirty bombs have focused public health concerns on medical countermeasures.

In support of national counterterrorism activities, the Center's laboratories in the Office of Testing and Research conducted studies on two important drugs in the nation's emergency drug stockpile.

These studies, requested by the Center's Office of Counterterrorism and Pediatric Drug Development, evaluated two drugs, doxycycline and potassium iodide, to determine if the stockpiled tablets could be dissolved in common foods or drinks for use by children.

Doxycycline

Because of the unprecedented anthrax-mailing incident last fall, OTR evaluated doxycycline, one of the stockpiled antibiotics that can be used for the post-exposure prevention of anthrax.

Although doxycycline is available and is stockpiled as a suspension, in an emergency, the tablets may be needed for pediatric dosing. OTR began the study in October.

Scientists evaluated the effect of crushing the doxycycline tablets into various foods and drinks. Many questions needed prompt answers, such as:

- What happens to the stability of the drug when crushed into these foods or drinks?
- What is the proper amount of the mixture to give in order to provide the appropriate dose?
- What foods mask the bitter taste of doxycycline the best, so that children will take the mixture?
- What foods or drinks dissolve the tablet effectively?

OTR completed the initial lab work to determine the stability and dosing uniformity of doxycycline in a variety of foods and drinks over the next few weeks.

A subsequent study, done with FDA volunteers, tested palatability of the drug. The results ranked chocolate pudding, chocolate milk, low-fat chocolate milk, and simple syrup with sour apple flavor as the top choices for palatability. The study took less than three months to complete.

The results of the stability and palatability studies were made public on FDA's Web site and shared with CDC and other government agencies responsible for homeland security. The instructions for crushing and mixing the tablets are being finalized for consumer-friendly language. This information will also be posted on our Web site.

Potassium iodide

This spring, OTR began a study on potassium iodide, a drug substance that is used to help protect the thyroid gland after exposure to radioactive iodine.

While the tablets are scored for division into smaller doses for children, they may crumble when split. Also, children and infants will not be able to swallow the bitter tablets.

Mixtures of the tablets dissolved in various foods or drinks needed to be tested so directions could be written for administration to children.

The OTR laboratory in St. Louis tested the stability and dose uniformity of the tablets when mixed with commonly available household foods and drinks.

For the next step, the University of Tennessee helped with palatability studies.

Study results allowed FDA to make recommendations for:

- The best methods for palatable delivery of potassium iodide tablets.
- The amounts of the mixture to provide the appropriate doses to infants and children.

The studies took about two months to complete.

Results of the palatability and stability studies showed that raspberry syrup masked the taste of potassium iodide the best, followed by low-fat chocolate milk, orange juice and flat soda (such as cola). These results and instructions for home preparation of the mixtures were posted on FDA's Web site and shared with CDC and other government agencies responsible for homeland security.

Details of all the studies are available on CDER's Drug Preparedness and Response Internet site at: http://www.fda.gov/cder/drugprepare/default.htm.

Mary Jane Mathews is a writer-editor in the Office of Pharmaceutical Science.

PIKE'S PUZZLER

Poisonous houseplants

BY TONY CHITE

1. Tall erect plant with large oblong leaves splotched with ivory markings. When chewed, its poisonous leaf produces immediate intense pain and swelling of the mouth. This common houseplant is the:

a. Diffenbachia (or mother-in-law's tongue)
b. Chrysanthemum
c. Lucky bamboo
d. Aloe vera

2. Large green stem leaves and smaller but showy red, pink or yellow leaves surround the flowers. Fruit is a three-celled, three-lobed capsule. When leaves, stem or milky sap are touched, they cause irritant dermatitis. Ingestion causes gastritis. This houseplant is the:

a. Coleus
b. Venus fly trap
c. Poinsettia
d. African violet

3. Climbing vines with aerial roots. Leaves are large and variable, the most common being heart-shaped. Ingesting the leaves of this plant causes painful burning of the lips, mouth, tongue and throat. Contact dermatitis is common. This houseplant is the:

a. Rhododendron
b. Philodendron
c. Easter lily
d. Lily of the valley

Key: 1a;2c;3b

Tony Chite is a pharmacist and consumer safety officer in the Division of Information Disclosure.

FDA concept paper unveils good manufacturing practices initiative

(Continued from page 1)

tive cGMP initiative we intend to do just that. We know we can make even a very good system better."

More than 40 years ago, Congress instructed FDA to require that all drugs be produced according to current good manufacturing practice. This requirement came in response to significant concerns about substandard drug manufacturing practices at that time, and it brought modern quality assurance and control principles to drug manufacturing.

In a memorandum to FDA employees, Dr. Crawford noted that the last comprehensive revision to the regulations are nearly a quarter of a century old. "Now, as we approach the 25th anniversary of the last major revisions to the drug cGMP regulations, it is time to step back and evaluate the currency of both the cGMP program and the pre-market review of chemistry and manufacturing issues," Dr. Crawford said.

"The initiative announced today is intended to build on the many successes of these two programs and help them continue to be successful in the future by keeping pace with advances in pharmaceutical science and manufacturing technologies."

The major goals of the initiative are to make sure that:

- The most up-to-date concepts of risk management and quality systems approaches are incorporated while continuing to ensure product quality.
- The latest scientific advances in pharmaceutical manufacturing and technology are encouraged.
- The submission review program and the inspection program operate in a coordinated and synergistic manner.
- Regulation and manufacturing standards are applied consistently.
- Management of the program encourages innovation in the pharmaceutical manufacturing sector.
- FDA resources are used most effectively and efficiently to address the most significant health risks.

FDA cannot accomplish these goals alone. Given the global nature of pharmaceutical production, FDA will work in close concert and consultation with its regulatory counterparts internationally.

The success of this initiative will be strongly dependent on active participation and input from manufacturing quality control experts from industry, academia, government and consumer groups.

CDER is the lead center for the initiative. A steering committee overseeing the effort includes representatives from the Office of Regulatory Affairs, CDER, the Center for Biologics Evaluation and Research, the Center for Veterinary Medicine and the Office of the Commissioner.

A concept paper published by the steering committee outlines five principles that will guide implementation of the reappraisal:

- Risk-based orientation.
- Science-based policies and standards.
- Integrated quality systems orientation
- International cooperation.
- Strong public health protection.

The Center's representatives on the steering committee are:

- **Janet Woodcock, M.D.,** CDER director.
- **Helen Winkle,** Office of Pharmaceutical Science acting director.
- **Ajaz Hussain, Ph.D.,** OPS deputy director.
- **David Horowitz,** Office of Compliance director.

Project manager for the steering committee is **Maureen Hess** in the Office of Executive Programs.

FDA released four documents about the initiative on its Web site. The documents and their locations are:

- Concept paper, http://www.fda.gov/oc/guidance/gmp.html.
- News release, http://www.fda.gov/bbs/topics/NEWS/2002/NEW00829.html.
- Questions and answers, http://www.fda.gov/oc/guidance/qsas.html.
- Dr. Crawford's memorandum to FDA employees, http://www.fda.gov/oc/guidance/announce.html.

Drugs in the News: Treatments for cancer, IBS, narcolepsy approved

On Aug. 12, FDA announced approval of oxaliplatin (Eloxatin injection) for use in combination with infusional 5-fluorouracil (5-FU) and leucovorin for the treatment of patients with colorectal cancer whose disease has recurred or become worse following initial therapy with a combination of irinotecan with bolus 5-FU and leucovorin.

The drug was shown to shrink tumors in some patients and delay resumed tumor growth. There are as yet no data on the effects of the combination on survival.

FDA reviewed the marketing application in seven weeks, the fastest review to date for a cancer drug. FDA used the "rolling review" procedures available for new drug applications designated as "fast track."

Tegaserod maleate (Zelnorm tablets) received approval July 24 for short-term treatment of women with irritable bowel syndrome whose primary bowel symptom is constipation. The safety and effectiveness of the drug in men have not been established.

FDA on July 17 approved sodium oxybate or gamma hydroxybutyrate also known as GHB for treating a small population of patients with narcolepsy who experience episodes of cataplexy, a condition characterized by weak or paralyzed muscles. To be marketed under the trade name Xyrem, the drug will be tightly restricted. In the early 1990s, GHB was also abused as a recreational drug and is well-known for use in date rape. The drug has been designated as a Schedule III controlled substance.

Ride share ads

Jack Morin in the Division of Training and Development has a suggestion that he hopes will be to his benefit and may benefit other readers of the *Pike*. If there is reader response, we'll run your ads each month.

- *Warrenton, Va., to Parklawn,* arrive 7:30 a.m. to 8:30 a.m., depart 4:30 p.m. to 5:30, p.m., Jack Morin (7-3483, MORINJ), driver or rider, Friday telecommute.

If you want to hook up, contact Jack directly. To place an ad, e-mail it to Patrick Clarke (CLARKEP).