news along the pike

MARCH 1999

CENTER FOR DRUG EVALUATION AND RESEARCH

VOLUME 5, ISSUE 3

***INSIDE . . .***



***PIKE'S CORNERS . . .***



# OTC Labeling Final Rule Unveiled at White House

## *Dr. Bowen Accepts Plain Language Award for Simplified Label*

Consumers will soon find it easier to use the drugstore medications they use and give their families. During a White House ceremony on March 11, Vice President Al Gore and HHS Secretary Donna E. Shalala announced the final FDA regulation that will provide new, easy-to-understand labeling on nonprescription drugs.

The regulation calls for a standardized format that will improve the labeling on drugs Americans use most, nonprescription, or over-the-counter drugs. By clearly showing a drug's ingredients, dose and warnings, the new labeling will make it easier for consumers to understand information about a drug's benefits and risks as well as its proper use.

Titled "Drug Facts," the new labeling makes it easier for consumers to identify active ingredients, which will be listed at the top, followed by uses, warnings, directions and inactive ingredients. The rule also sets minimum type sizes and other graphic features for the standardized format, including options for modifying the format for various package sizes and shapes.

**Debra Bowen, M.D.,** who led the FDA team that authored the regulation, accepted a Plain Language Award from the vice president. The award recognizes the team's efforts in for

*(Continued on page 12)*

# OCPB Holds 6th Science Day, OGD Reviewers Attend

**BY VANITHA SEKAR, MIKE FOSSLER AND LARRY LESKO**

The Office of Clinical Pharmacology and Biopharmaceutics held its 6th biannual Science Day at the University of Maryland Shady Grove Annex on March 5. For the first time, reviewers from the Office of Generic Drugs were invited to attend this year's event.

David J. Greenblatt, M.D., Professor and Chairman, Department of Pharmacology and Experimental Therapeutics at Tufts University School of Medicine, was the featured speaker. Dr. Greenblatt's talk was entitled "Interpreting *in-vitro* data on drug metabolism: Is there a state of the art?" He focused on the use of in-vitro models of drug metabolism as a component of the drug development process.

When properly applied and interpreted, these models can provide important information that allows for more informed and cost-effective allocation of time and resources available for human clinical pharmacology studies. Dr. Greenblatt also encouraged collaboration between FDA and academia in conducting integrated research projects to support policy development in clinical pharmacology.

In order to make regulatory decisions

*(Continued on page 11)*

# Office of Health Affairs Holds 3rd Roundtable

A briefing on CDER's Y2K outreach program and a discussion of the nation's risk management system for prescription drugs highlighted a roundtable meeting between Center Director **Janet Woodcock, M.D.,** and 14 health professional associations. Sponsored by the Office of Health Affairs and moderated by Associate Commissioner for Health Affairs **Stuart L. Nightingale, M.D.,** the third roundtable in the series took place in Washington March 23.

The Y2K outreach program is one of CDER's top priorities in the next few months. **Mark Goldberger, M.D.,** who heads the Center's Y2K Outreach Task Force briefed the meeting on developments in CDER's plans to ensure an adequate supply of safe and effective drugs for consumers late this year and early next year. Potentially, shortages could develop as a result of either year 2000 computer bugs in the industry or increased demand from consumers.

The team is looking at distributing a simple questionnaire to industry on their plans and having results by late spring or early summer.

*(Continued on page 12)*

*JOE'S NOTEBOOK*

# Over-the-Counter Tidbits

The stars were certainly in alignment for the White House announcement of the over-the-counter labeling rule March 11. Just over a 100 years ago—on March 6, 1899, to be precise—Bayer trademarked "Aspirin" in Germany.

Aspirin is a generic name in this country as a result of World War I. Aspirin had become such an important medicine that the Allies stripped the German firm of its rights to the drug during the war. They sealed their confiscation in the Treaty of Versailles.

Two years before that, Felix Hoffmann, then a 29-year-old chemist working for Bayer, discovered a stable form of acetylsalicylic acid, the active ingredient in aspirin. Hoffmann had been seeking a pain-relieving medicine for his father's rheumatism. Doctors had prescribed salicylic acid, but the drug irritated his stomach. Hoffmann solved the problem through the process of acetylation, creating a compound of salicylic and acetic acids.

The drug eased his father's pain and inflammation. When it was marketed as aspirin by Bayer two years later, it quickly became the world's most popular pain reliever. The name aspirin is formed from acetyl and *Spiraea ulmaria,* the plant that produces salicylic acid. We can find reference to the use of the plant as a painkiller as far back as Hippocrates in 440 B.C.

Today aspirin plays an important role in treating and preventing heart attacks and strokes. Folks estimate that if aspirin was more widely used, we could save about 10,000 lives a year from these two diseases.

Here are some other interesting facts about over-the-counter medicines:

- Of the more than $1 trillion we spent on health care in 1997, almost $17 billion paid for nonprescription medicines—less than 2 cents of every health care dollar.
- Of approximately 3.5 billion health problems treated annually, about two billion, or 57 percent, are treated with a nonprescription drug.

  —American Pharmaceutical Association, 1996
- The cost of OTC medicines increased only 10 percent during the five-year period ending March 1997. In contrast, hospital care jumped 32 percent during the same period, physician services went up 24 percent and dental care increased 28 percent.

  —U.S. Bureau of Labor Statistics, 1997
- In 1996, OTCs saved American consumers more than $20 billion in health care costs—taking into account prescription drug costs, doctor visits, lost time from work, insurance costs and travel.

  —Kline & Company, 1997
- For a single dose treatment with over-the-counter medicines, Americans pay about 11 cents for an pain reliever, 12 cents for an upset stomach remedy, 17 cents for a laxative and 20 cents for cough and cold treatment. The cost to treat these conditions for three days, 12 to 18 treatments, ranges from $1.69 to $2.54.

  —ACNielsen, 1993
- The average cost of an OTC medicine is about $5. When insurance co-pays are taken into account, the average cost of a prescription drug is $21 and a visit to the family doctor costs about $16. Thus, for typical, self-treatable ailments, consumers can save about $32 in out-of-pocket costs by practicing self-medication.
- Currently, there are more than 100,000 OTC products on the market in various dosage forms and strengths. However, fewer than 1,000 active ingredients are used in all OTC products.
- More than 600 OTC products use ingredients and dosages available only by prescription 20 years ago.

news along the pike

The Pike is published electronically on the X:drive in Cdernews and on the World Wide Web at:

http://www.fda.gov/cder/pike.htm

Photocopies are available in the Medical Library (Parklawn 11B-40) and its branches (Corporate Boulevard S-121, Woodmont I 200S, and Woodmont II 3001).

Views and opinions expressed are those of the authors and do not necessarily reflect official FDA or CDER policies. All material in the Pike is in the public domain and may be freely copied or printed.



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

***NEWS ALONG THE PIKE***
CDER Office of Training
and Communications (HFD-200)
Parklawn Building, Room 12B-45

Editor: Norman "Joe" Oliver (OLIVERN)
Phone: (301) 827-1670
Fax: (301) 827-3055

*OMBUDSMAN'S CORNER*

# Understanding the Big Picture Improves Learning

**BY JIM MORRISON**

If we think back to when we learned a complex new task, such as driving a car, we can remember that at first we were preoccupied with the mechanics of the operation. When we first got behind the wheel, we were sometimes so engrossed in all the knobs, buttons and pedals that our instructor had to remind us that it was equally important to watch the traffic. After a while, the mechanical operations became second nature, so we could concentrate on watching the road and anticipating problems.

The same pattern holds for any complex task, and the more complex it is the more time we spend on the mechanics of the operation. There are few tasks in life as complicated as regulating drugs. Not only is the science complex and constantly evolving, but also laws, regulations and constituents' expectations are always in flux.

It's little wonder, then, that even the best and brightest who come to CDER become preoccupied with the mechanics and the technical aspects of the regulatory process. With heavy workloads and training focused primarily on technical subjects, scientists new to CDER and even experienced reviewers seldom have time to delve into the philosophy of drug regulation.

In addition to complexity and the constraints on available time, many people concentrate on the mechanics of their jobs for another reason. They labor under the impression that strategic planning, societal concerns and other "big picture" issues are the sole provinces of senior management.

This paradigm results naturally from hierarchical and mechanistic management theories that have only recently been challenged. Organizations managed mechanistically revere specialization and the division of labor. But while such principles have worked well on the factory assembly line, they don't work well in the more challenging workplaces of the Information Age.

> " . . . it is so important that each of us take time to understand CDER's role in society, to know how each of us contributes to CDER's mission and to be aware of FDA's current priorities."

A new order of organizational theory is emerging—the natural or organic model. Rather than viewing an organization as a machine and workers as cogs, the organic model of organization views the enterprise as a living system and staff as integral to the whole. This change in organizational thinking is important and fascinating. I'll have more to say about it in a later column.

CDER is evolving from a mechanistic organization structured to optimize strict division of labor into an organic one heavily influenced by self-directed teams, such as CDER's coordinating committees (August Pike). If those teams don't have a vision of where the enterprise should be headed, if they don't have the big picture, then the enterprise is in trouble. Such organizations come to the same end as a neophyte driver fiddling with the radio instead of watching the road.

That is why it is so important that each of us take time to understand CDER's role in society, to know how each of us contributes to CDER's mission and to be aware of FDA's current priorities. In the end, time spent on reading, thinking and talking about these topics will save time and effort that would otherwise be wasted on projects that are inconsistent with the direction in which the Agency is heading.

There are many sources that deal with the larger issues of drug regulation. Just a few include:

- Preambles to key regulations.
- The FDA's and CDER's Internet and intranet sites
- CDER seminars and scientific rounds.

Why should an ombudsman care about your understanding the big picture? If everyone in CDER understood more about the context of their work, I might get fewer complaints about inconsistencies among divisions and about the uneven application of regulations and policies.

*Jim Morrison is the Center's Ombudsman.*

# Center's Exhibit Offers Opportunity to Answer Questions at Meetings

**BY PAT LEONARD**

The Center's exhibit has just returned from a successful showing at the American Pharmaceutical Association meeting in San Antonio earlier this month.

If you are making a presentation at an up-coming meeting or simply attending, spending an hour or so at the exhibit is a great way to meet contacts and answer questions. The schedule for the remainder of the year is:

- April 28, CDER session of the FDA Stakeholders' Meeting, Philadelphia.
- April 28-May 7, FDA's Office of Regulatory Affairs meeting for public affairs specialist, Orlando, Fla.
- May 12-14, National Council on Patient Information and Education, Washington.
- May 26-28, Association of Clinical Research Professionals, Washington.
- June 27-July 1, Drug Information Association, Baltimore.
- June 29-July 1, New Jersey Pharmacy Association, Atlantic City, N.J.
- July 24-28, National Council of LaRaza, Houston.
- Aug. 7-12, Joint Statistical Meeting, Baltimore.
- Aug 29-Sept. 1, National Association of Chain Drug Stores, San Diego.
- Oct. 4-6, Regulatory Affairs Professional Society, Washington.
- Oct 23-27, National Community Pharmacist Association, Las Vegas.
- Nov 8-11, American Public Health Association, Chicago.

If you would like to schedule yourself for a specific time to attend the exhibit, please contact me (LEONARDP, 7-1668).

Also, you can arrange to have one of the Center's two exhibits at other events.

*Pat Leonard is a public affairs specialist in OTCOM.*

*PROJECT MANAGEMENT CORNER*

# Training Session Focuses on Modernization Act Issues

BY DEBBIE KALLGREN

For more than a year now, much of the Center's has focused on the review management challenges posed by the FDA Modernization Act. The Center's Project Management Program Staff and the Project Management Training and Certification Subcommittee have also been busy listening to the issues that project managers raised about the law.

To address those issues, we held the second annual "PM/a.m.,"an educational program designed specifically for project managers. The six-hour training program held last month was packed with information about the law and other timely topics. More than 100 project managers attended.

Presentations were 30-minute tandem sessions that allowed people to choose subjects of interest. All sessions included a question-and-answer period. Speakers and their topics included:

- **Linda Carter,** clinical trials registry.
- **Leah Ripper,** post-marketing and Phase IV studies.
- **Bronwyn Collier,** fast track, special protocols.
- **Andrea Masciale,** Modernization Act overview, formal dispute resolution.
- **Mike Jones,** user fees, bundling policy.
- **LuAnn Pallas,** application integrity policy.
- **Khayti Roberts,** pediatric exclusivity.
- **Nancy Ostrove,** direct-to-consumer advertising
- **Lisa Hubbard,** FDA's Office of Orphan Products Development.
- **John Treacy,** CDER's Advisors and Consultant's Staff.

The last two presenters included an overview of the functions of their offices.

**Jack Purvis** kicked off the lunchtime break-out session by sharing his personal perspective on enhancing team performance. The break-out discussion groups identified ways to increase team performance and motivation. Each group then shared its ideas.

We provided the new instructional brochure for the Regulatory and Project Management Certification Program and the latest version of the certification program's individual development plan.

We had signup sheets for all the subcommittees of the Project Management Coordinating Committee. Project managers are encouraged to join.

Feedback received from both novice and experienced participants mirrored the same message—the time invested in the training was definitely worthwhile and is already paying dividends. Others requested that the PM/a.m. be offered more frequently, such as semi-annually or even on a quarterly basis. (Now there's a tough order!) In either case, Center project management staff are motivated to stay "in the know."

The Project Management Program Staff thanks all those who contributed to the design, planning, presentations, and overall success of this program and expresses special thanks to **Steve Hayleck** and **Maria De Carvalho,** Division of Training and Development, OTCOM, for the logistical support.

*Debbie Kallgren is Center Project Manager, Project Management Program Staff.*

# Buehler Tapped for Deputy Director in Office of Generic Drugs

CAPT **Gary Buehler** will join the Office of Generic Drugs May 1 as its new deputy director.

Buehler joined the Division of Cardio-Renal Drug Products in 1986. Currently a supervisory regulatory management officer, he is known throughout the Agency and industry as being very knowledgeable regarding FDA regulations and policy, as well as being responsive to the industry. He has managed the approval process for a number of high-profile applications and served as the acting chief of the project management staff when needed.

He has also served the as chair of the Medication Errors Committee and helped to recognize fellow PHS officers as a member of the Center's Commissioned Corps Awards Committee.

Buehler began his professional career at Temple University School of Pharmacy where he received many awards and honors. He then completed a U.S. Public Health Service pharmacy residency in Seattle. From there, he went on to serve in a variety of duty stations in the PHS system of hospitals and clinics and in two Indian Health Stations in both staff and chief pharmacist positions. For his outstanding service, he has received numerous PHS awards.

The deputy position has been vacant since the departure of **CAPT Gordon Johnston** at the end of 1998.

## *OGD Recognizes Document Room Workers*

BY TED SHERWOOD

The directors and managers in the Office of Generic Drugs honored the 15 members of the OGD document room staff with certificates of appreciation presented during a luncheon last month. The ceremony expressed appreciation for their efforts in helping assure high quality generic drug products. Last year, the OGD document room processed approximately 45,000 documents.

The OGD Document Room has been under contract since June 1990. The contract covers a wide range of duties including processing incoming abbreviated new drug applications, supplements and outgoing correspondence, maintaining the Division Files and electronically tracking thousands of volumes.

Most importantly, the document room team is always available to assist OGD staff. They have adjusted wonderfully to many changes brought on by our initiatives to streamline the review process.

Members of the document room staff honored were: **Lily Cheng, Prentiss Emmons, Catherine Gantt, Wayne Green, Marc Henry, Eda Howard, Carlene Law, Corrina Miller, Alain Ngangue, Derrick Page, Jacquelyn Smith, Julie Sun, Edward Washington, Olive Weller,** and **Rose Wiseman.**

*Ted Sherwood is a management analyst in the Office of Generic Drugs.*

*PEDIATRICS CORNER*

# New Advisory Panel, Associate Director Tackle Host of Issues

**BY KATHY ROBIE-SUH, M.D., PH.D.**

In its continuing effort to encourage development of appropriate data to properly dose and use therapies in children and to provide this information in product labeling, the Center has implemented a number of activities. Highlights of current programs include:

*Pediatric exclusivity provisions of FDA Modernization Act.* In May, FDA published a priority list of 492 drugs that may be eligible for six-month exclusivity extensions if studies are request by FDA. This list distinguished the 492 products from a broader list which included all approved drugs for use in adults.

FDA published a guidance to industry on how to apply for the pediatric exclusivity available under the FDA Modernization Act. The list of companies that have received written requests for approved products from FDA is on CDER's Web site, http://www.fda.gov/cder/pediatric.

*Publication of final pediatric rule.* On Dec 2, the Agency published a final pediatric rule that will require sponsors to undertake pediatric studies of drugs which are likely to provide meaningful therapeutic benefit or have substantial use in children. Training for reviewers is underway. The regulation becomes effective April 1.

*New Associate Director and Pediatric Core Team to oversee pediatric initiatives.* A top-notch group is being assembled to oversee and coordinate the Center's pediatric initiative undertakings. ODE IV Director **Dianne Murphy, M.D.,** who has been coordinating the Pediatric Implementation Team, will head the new Pediatric Core Team. Dr. Murphy will serve a one-year detail as Associate Director for Pediatrics, reporting to the Deputy Director (Review Management). **Sandra Kweder, M.D.,** ODE IV's deputy director will serve as ODE IV acting director.

**Rosemary Roberts, M.D.,** chair of the Pediatrics Committee and a medical officer and team leader in the Division of Anti-Infective Drug Products will serve as the pediatric team's medical officer.

The committee has representatives from each CDER review division, including OTC drugs, as well as a representative from the Center for Biologics Evaluation and Research. The group also includes FDA's liaison to the Committee on Drugs of American Academy of Pediatrics and the National Institute of Child Health and Human Development.

Other positions on the Pediatric Core Team will include a project specialist to assist with tracking, reporting and coordination efforts; a regulatory health position; and a technical support position.

Activities under the purview of the Pediatric Core Team will include:

- The pediatric rule guidance.
- The pediatric clinical trial guidance.
- Implementation activities for the pediatric rule and exclusivity provisions of the FDA Modernization Act
- Tracking and reporting of pediatric studies and implementation activities.
- Training for reviewers and speaking to external groups.
- Identifying ethical issues.
- Assembling an advisory panel that will make recommendations on implementation activities and future issues that develop as children become more involved in clinical trials.

*New FDA advisory panel specific to pediatric issues.* The Pediatric Advisory Subcommittee will hold its first meeting April 23. Formed as a subcommittee of the Anti-Infective Drugs Advisory Committee, the panel will meet periodically when specific pediatric drug issues require advisory committee review.

In its inaugural meeting, the panel will discuss broad issues in the development and study of all therapies in children and their relation to implementing regulatory efforts to ensure adequate labeling and proper pediatric use.

*Development of a guidance by the International Conference on Harmonization.* The international community is working toward ICH harmonization of an approach to and design of pediatric trials (E-11). Dr Murphy, Dr. Roberts and CBER's **Karen Weis, M.D.,** are representing FDA.

*Kathy Robie-Suh is a medical officer in the Division of Gastro-Intestinal and Coagulation Drug Products.*

# Dr. Peck Outlines Staff College History in Inaugural Bill Abrams Lecture

A nearly full auditorium heard Carl Peck, M.D., from the Center for Drug Development Science at Georgetown University deliver the first William Abrams Lecture March 3. Dr. Peck, the Center's Director from 1987 to 1993, recalled his association with Dr. Abrams in the establishment of the "Staff College," now the Division of Training and Development in OTCOM.

Dr. Abrams was the widely respected executive director for scientific development at Merck & Co., Inc. He died Sept. 15 after a long illness. Attending the lecture, were his widow, Berenda Abrams, and son. Also present were former Bureau of Drugs Director, **Dick Crout, M.D.; Robert Nelson, Ph.D.,** the first director of the Center's professional development program; and DTD's **Delores Rhodes** and **Dale Wilcox,** the first employees hired by Dr. Abrams.

Dr. Peck's lecture drew from Dr. Abram's view that the desirable educational foundation for competence in clinical drug evaluation is broadly based.

Currently, drug development and regulatory scientists have a highly specialized education. Physicians and pharmacists entering the pharmaceutical industry or FDA, while educated in basic pharmacology, have rarely received broad training in clinical pharmacology and drug evaluation, leading to incomplete drug evaluation skills. Statisticians, though steeped in theoretical and mathematical statistics, usually lack knowledge of clinical or pharmacological sciences. These specialized backgrounds, along with on-the-job learning, have become the basis for the team approach to implementation and interpretation of traditional clinical trials.

The paradigm for drug development is shifting away from a dominantly empirical one towards a strongly mechanistic one. Science-based drug development and regulation implies an increasing need for drug evaluators that command broad understanding of biopharmaceutics, clinical pharmacology and biostatistics, in addition to a specialized degree.

*REVIEWER'S CORNER*

# Committee for Advanced Scientific Education Seeks New Members

**BY KEN KOBAYASHI, M.D.**

The Committee for Advanced Scientific Education is seeking nominations for new members to serve three-year terms. A formal call for nominations will come in a few weeks by electronic mail, but now is the time to start preparing.

The committee, in conjunction with the Division of Training and Development, plays a pivotal role in enhancing the scientific knowledge of reviewers. The committee's work involves:

- Organizing the CDER Seminar and Scientific Rounds programs.
- Prospectively reviewing proposed courses for their scientific content.
- Evaluating the performance of scientific courses and the program of seminars and Rounds.
- Providing general advice to the Division of Training and Development on scientific education for reviewers.

Full committee meetings are held monthly in the Parklawn Building. Regular subcommittee meetings are held on a schedule determined by the individual subcommittees.

Committee members are generally expected to attend and participate in the group's activities. Pharmacists and physicians will also be asked to review course content and seminars for continuing education credit.

Membership is open broadly to all reviewers and scientific and professional staff in CDER. We try to maintain a representative balance of disciplines and professions and will be encouraging nominations from certain specific disciplines.

We are currently determining the number of openings available and the particular disciplines needed for the coming term.

Self-nominations are accepted. Current CASE members will be happy to discuss any aspect of Committee membership with interested persons. Please watch for the forthcoming call for nominations for specific details.

This year's Committee has been very active and has had a highly successful year. We are looking forward to continuing this tradition of excellence with the new members. A list of the current Committee members can be found under What's Happening on the Division of Training and Development's intranet page, http://cder-net/dtd/index.htm.

Questions may be directed to either myself (7-1543, KOBAYASHIK) or Karen Zawalick (7-1449, ZAWALICKK) in DTD.

*Ken Kobayashi is a medical officer in the Division of Oncology Drug Products and current CASE chair.*

# A Visit to Patent and Trademark Office Uncovers Similarities to FDA

**BY JERRY COLLINS**

There are many similarities between the U.S. Patent and Trademark Office and the FDA. Both organizations process applications that are highly technical, confidential and, occasionally, have great economic impact. Both agencies charge fees for their reviews, and neither agency can avoid legal and congressional entanglements related to their decisions.

Another common element is that both organizations have a scientific seminar series for their employees. In addition, the agency has a highly structured "training academy" for new employees.

Recently, I was invited to give a research presentation at their equivalent to our Scientific Seminar sponsored by the Committee for Advanced Scientific Education.

I also spent some time visiting with their staff. The patent reviewers are called "examiners," and I found that their offices looked identical to those of a CDER reviewer: application jackets lining all open shelves.

Their agency is spread over many buildings in the Crystal City area, and they have been negotiating for many years for a consolidated facility. Sound familiar? Generally, the examiners have master's degrees, but there is a trend that most new hires have Ph.D.'s.

*Jerry Collins, Ph.D., is Director, Laboratory of Clinical Pharmacology, in the Office of Testing and Research.*

# *Medical Library Plans Open Houses, Contests for Library Week, April 12-16*

**BY CAROL ASSOUAD**

The Medical Library will celebrate National Library Week, April 12 to 16, with a variety of activities, including open houses at the main library and its branches, a treasure hunt and a pharmacognsy question.

The main library open house will be held Thursday, April 15, from 2 p.m. to 4 p.m. in Room 11B-40 of the Parklawn Building. The Corporate Boulevard branch open house is scheduled for 9 a.m. to 11 a.m., Friday, April 16. The Woodmont II branch celebration will take place from 2 p.m. to 4 p.m. the same day. Several vendors will be on hand at each open house to give demonstrations of some of our newest services , including those that we'll be implementing in the next few weeks.

You can keep posted on the week's activities through Library's intranet site, its newsletter *Check It Out!* and our e-mails.

As in years past, we are having a treasure hunt. We will be sending out several questions a day during the two-week period leading up to our open house at the main branch. You can enter as often as you would like, but can only win once. Questions can be answered on-line or from print materials in the main library or its branches. Prizes will be awarded at the main branch open house.

A prize for correct answers to the pharmacognsy question will be awarded at each of the open houses.

*Carol Assouad is Director, Medical Library.*

# Bill Furman Records Scientific, Mathematical Texts for Blind

**By Thomas Layloff, Ph.D.**

ST. LOUIS—Ever since **Bill Furman** retired in June 1997 as Deputy Director of the Division of Testing and Applied Analytical Development, he has divided his time between spending one or two days per week in the division's offices and recording scientific and mathematical materials for the blind.

At the division, he responds to queries and drafts position papers and articles on laboratory quality issues. For a part of his efforts in addressing laboratory quality issues in support of an FDA grassroots program, he recently shared in a group Hammer Award from the National Partnership for Reinventing Government.

A St. Louis *Post-Dispatch* article highlighted his volunteer efforts for a local non-profit agency, Talking Tapes, that records textbooks and other materials for the blind students. He not only volunteers to record materials but also duplicates tapes.

"The first book they gave me to read was a geometry textbook," Furman told reporter Sue Ann Wood.

"I looked at it and thought, 'What have I gotten myself into?' It took me hours to figure out how I could make the problems and geometric figures understandable to someone who couldn't see them."

*Thomas Layloff is Director of the Division of Testing and Applied Analytical Development in the Office of Testing and Research.*

# Honig, Rodriguez Head OPDRA's Drug Risk Evaluation Divisions

The Office of Post-marketing Risk Assessment officially announced the selection of directors for the two new divisions of drug risk evaluation:

- **Peter K. Honig, M.D., MPH,** Division of Drug Risk Evaluation I.
- **Evelyn M. Rodriguez, M.D., MPH,** Division of Drug Risk Evaluation II.

In these positions, Drs. Honig and Rodriguez are responsible for providing scientific and administrative leadership, management and vision. They coordinate all scientific and administrative issues between the two divisions and between their division and the review divisions for new drugs and the Office of Generic Drugs.

One of their highest priorities will be to work with the ODE review divisions prior to the approval of new drugs to explore the best way to customize post-marketing surveillance strategies for drugs reaching the market, based on the safety profile established in the NDA database.

Dr. Honig was a medical team leader in the Division of Pulmonary Drug Products. He received his bachelor's degree from Columbia University, his M.D. from Columbia College of Physicians and Surgeons and his MPH. in epidemiology from Columbia University School of Public Health.

His internship and residency in internal medicine were at Northwestern University School of Medicine. He also completed a fellowship in clinical pharmacology in the Uniformed Services University of Health Sciences and FDA Clinical Pharmacology Fellowship Program. He is board certified in both internal medicine and clinical pharmacology.

Dr. Honig joined the Division of Pulmonary Drug Products in 1993 as a medical review officer and became a medical team leader in 1996. He has been involved in Centerwide activities and working groups. He is in Leadership Fellows program and served as scientific rounds coordinator worked for the Committee for Advanced Scientific Education.

Dr. Honig maintains an active clinical faculty presence at Georgetown where he received the Department of Medicine Clinical Faculty Award in both 1994 and 1996 for consistent excellence in teaching. He has been active in the American Society of Clinical Pharmacology and Therapeutics and was elected to their Board of Directors in 1998.

Dr. Rodriguez graduated *summa cum laude* in biology from Saint Francis College. She earned her medical degree from Harvard Medical School and her MPH in epidemiology from Columbia University School of Public Health. Dr. Rodriguez was a pediatric intern at Harvard-affiliated Children's Hospital in Boston.

She continued her pediatric training at the New York's Babies Hospital, an affiliate of Columbia. She was on the faculty at Babies Hospital and St. Luke's-Roosevelt Hospital in New York City as well as Downstate Medical Center and Kings County Hospital in her hometown of Brooklyn. She is board certified in pediatrics and public health and general preventive medicine.

She is a commander in the PHS Commissioned Corps. She is a founding member of the Commissioned Corps Honor Guard and was its Deputy Unit Commander for almost two years.

She has served in the Bureau of Health Professions, Health Resources and Services Administration, as head of the Program Development Branch of the Division of Disadvantaged Assistance. She has served as an epidemic intelligence service officer at Centers for Disease Control and Prevention and as a medical officer in the Pediatric and Perinatal Transmission Section at the National Institute of Allergy and Infectious Diseases.

Her research contributions include the co-discovery of a new calcivirus that causes gastroenteritis in humans. She was also the first to report the increased risk of maternal viremia and perinatal HIV transmission with maternal drug use during pregnancy in women infected with HIV. As a result of her work in HIV at NIAID, she received the PHS Outstanding Service Medal.

Dr. Rodriguez joined the former Division of Pharmacovigilance and Epidemiology and early this year and, with her energy and commitment, has made major contributions to the formation of our new office. She has been deeply involved in transition team deliberations in the scientific arena and, as acting division director for both of the new divisions for the past several months, as the focus for management of several difficult issues. Dr. Rodriguez is on the faculty at USUHS and actively participates in medical school teaching. She provides care at a pediatric urgent care center one evening a week.

*REVIEWER AFFAIRS CORNER*

# RAC Lists Officers, Division Representatives for 1999

**BY C. RUSS RUTLEDGE**

In January, I introduced **Lydia Kieffer,** the newly elected chairperson of the Reviewer Affairs Committee. The column also covered some of the highlights from the previous year. Now I would like to introduce the other RAC officers, subcommittee chairs and the 1999 RAC representatives. All CDER review divisions should a representative and, ideally, an alternate. There are still some vacancies. Please contact your division director and Lydia if you would like to step in and help with an important function.

RAC information and documents are on the common drive in the folder x:\coor-comm\RAC. There you will find current topics, rosters, meeting minutes, meeting locations and news.

Past editions of *News Along the Pike* are also a good source of items of RAC interest. These may be accessed by the What's Happening button on the CDER homepage, http://www.fda.gov/cder.

The 1999 RAC officers are:

- Chair: Lydia Kieffer, HFD-860.
- Vice-chair: **Robert Shore,** HFD-870.
- Project manager: **Tanya Abbott,** HFD-6.

The subcommittees volunteer chairs are:

- Bylaws: vacant.
- Communications and Training: **Jacqueline White,** HFD-613.
- Comparable Pay: **Milton Sloan,** HFD-830.
- Networking: **Lydia Kieffer,** HFD-860.
- Operational Procedures: Robert Shore, HFD-870.
- Quality of Worklife: **Karen Lechter,** HFD-40.
- Reviewers Handbook: **Russ Rutledge,** HFD-320.
- Team Model: **Souson Altaie,** HFD-520.

The volunteer task force chairs are:

- CDER Reviewer Career Path: **Jahnavi Khandia,** HFD-650.
- Guidance Process Improvement Survey: vacant.
- Reviewer Survey on Regulatory Changes: vacant.
- *News Along the Pike* representatives: subcommittee chairs.

Here are the division representatives and their alternates, organized by HFD number:

- **Tanya Abbott,** HFD-6.
- **Jo Ann Spearmon, Melissa Moncavage,** HFD-40.
- **No representative,** HFD-110.
- **Andrea Powell,** HFD-120.
- **James O'Leary,** HFD-150.
- **Adebayo Laniyonu, Robert Yaes (A),** HFD-160.
- Vacant**,** HFD-170.
- **John Schmeling,** HFD-180.
- **Marilyn Wolf,** HFD-316.
- **Russ Rutledge,** HFD-320.
- **Ada Irizarry, Melvin Szymanski (A),** HFD-330.
- **Alfreda Burnett,** HFD-344.
- **Joanna Zawadzki,** HFD-510.
- **Sousan Altaie, Harold Silver (A),** HFD-520.
- **Russell Fleischer, Ita Yuen (A),** HFD-530.
- **Mildred Wright,** HFD-540.
- **Josie Yang, Zhou Chen (A),** HFD-550.
- **Linda Hu,** HFD-560.
- **Luqi Pei,** HFD-570.
- **Diane Moore,** HFD-580.
- **Steve Kunder,** HFD-590.
- **Jacqueline White ,** HFD-613.
- Vacant**,** HFD-620.
- Vacant**,** HFD-630.
- **Karen Bernard,** HFD-640.
- **Jahnavi Kharidia,** HFD-650.
- **Kate Meaker, Sue-Jane Wang (A),** HFD-715.
- **Shahla Farr, Valerie Freidlin (A),** HFD-725.
- **Allen Brinker, Mary Willy (A),** HFD-730.
- **Brenda Uratani , Neal Sweeney (A),** HFD-805.
- **Kathleen Jongedyk,** HFD-810.
- **Maria Ysern, Ali Al-Hakim (A),** HFD-820.
- **Milton Sloan, Rajendra Uppoor (A),** HFD-830.
- Vacant**,** HFD-840.
- Vacant**,** HFD-850.
- **Lydia Kieffer** (Chairperson), HFD-860.
- **Robert Shore, Venkateswar Jarugula,** HFD-870.
- **Sue-Chih Lee, Houda Mahayni,** HFD-880.
- **Daniel Goldman,** HFD-900.

*C. Russ Rutledge is a compliance officer in the Division of Manufacturing and Product Quality.*


## Parklawn Classic Slated for April 30

The 24th Annual Parklawn Classic is scheduled for Friday, April 30, at 11:00 a.m. The event includes a 5-mile run and a 2.5-mile health walk. You can find out more about the Classic and register on its Web site at http://www.classic.dhhs.gov.

"It is with great enthusiasm that I endorse the Classic, and I welcome its recognition as a departmentwide health promotion event," said HHS Secretary Donna Shalala in a memo announcing the date.

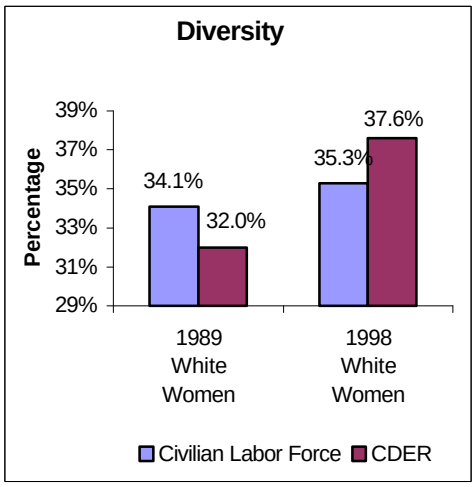
"I am encouraging you to participate—walking, running, spectating, or volunteering. I can think of few better opportunities to begin or continue a personal health and fitness program and to meet fellow HHS employees in a fun and festive atmosphere.

"Of course, you need to check with your supervisor to make sure you can be spared from your regular duties."

# Affirmative Employment Plan Shows Progress for Some Groups

**BY DIANE SMITH**

Title VII of the Civil Rights Act makes it unlawful for any employer to discriminate against any employee or applicant based on race, color, national origin, sex, age, religion and mental or physical handicap. The Act further mandates the preparation of affirmative action plans to ensure equal opportunity in employment for minorities and women and commands employers to make additional efforts to recruit, hire and promote qualified members of these targeted groups.




The Center's Affirmative Employment Program Plan for equal employment opportunity for minorities and women covers all employment practices, including, but not limited to, recruitment, hiring, training, reassignments, promotions and retention. The CDER plan includes goals and objectives to create a more diversified work force at all grade levels by increasing the representation of minorities and women and to reduce or eliminate imbalances for any targeted group. An imbalance occurs when CDER's employment of targeted minorities falls below their levels in the civilian labor force. Because different variables are taken into consideration when setting goals and objectives, and because overrepresentation of selected target groups at the lower levels hide the underrepresentation at the senior level, both internal and external goals were set separately, as well as by individual grade bands.

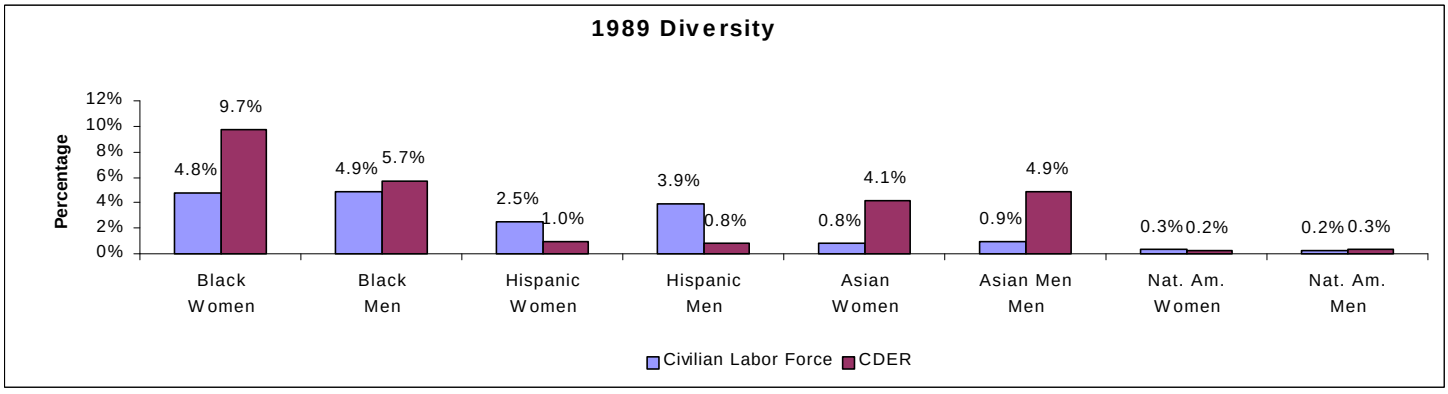
Anyone with a realistic view of these goals and objectives knows that significant change does not take place overnight. At the same time, progress depends upon day-to-day decisions of each manager or supervisor, especially selecting officials.

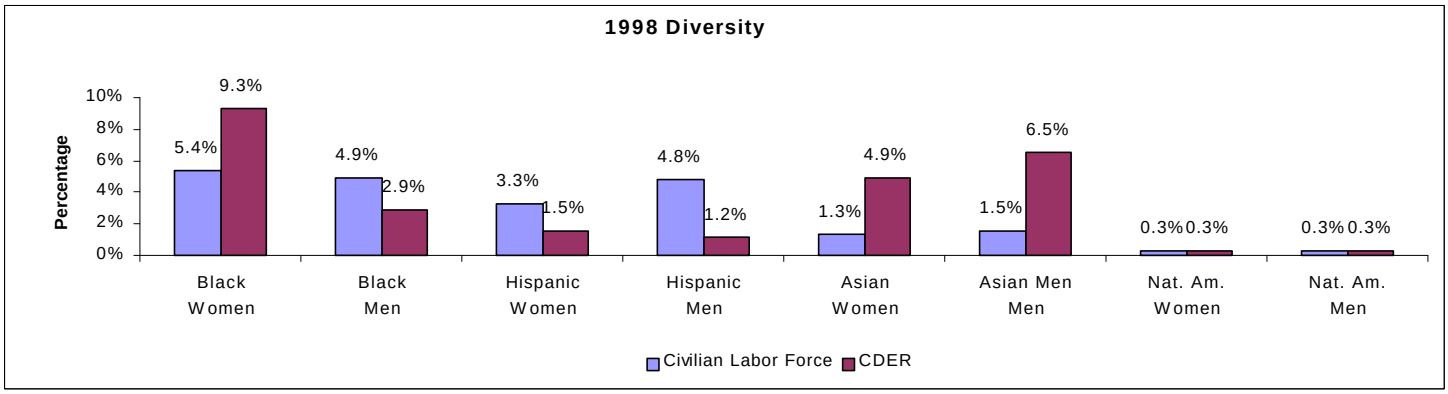
The charts compare the Center's progress in meeting its goals for minorities and women between September 1989 and September 1998. In 1989, white women, Hispanic men and women and Native American males were underrepresented. The Center's total work force increased by 26.3 percent or 405 between 1989 and 1998. Underrepresentation was eliminated for white women and Native American men. However, Hispanic men and women continue to be underrepresented. Black males suffered a significant decrease.

It is gratifying to see that progress has been made for women and minorities and that the Center has come closer to reaching its goal of eliminating underrepresentation. However, we are not there yet. We cannot rest with the achievements of past years, but we must continue the concerted efforts necessary to achieve equality for all.

The 1989 CLF data were based on the 1980 census report and the 1998 CLF data were based on the 1990 census report.

*Diane Smith is an EEO specialist on CDER's EEO Staff.*



# Y2K Activities, Web Registration for OIT Courses Featured

**BY JUDY MCINTYRE**

The following Office of Information Technology updates describe the major activities, currently underway or planned. More detailed information about many of them is available through OIT's intranet site. Comments or questions about any of these projects can be sent through e-mail to the OIT point of contact listed at the end of each project.

*Year 2000 Activities:* CDER's year 2000 efforts are progressing on several fronts: Mission-critical systems: System renovation and testing, as well as preparation of Y2K compliance packages, were completed before the Agency's March 31 deadline. The compliance packages for each of the 16 mission-critical systems have been forwarded to the Agency for certification by the independent verification and validation team.

**Non-mission critical systems:** These will require additional testing planned to begin in April.

**Local application systems:** We will contact system owners in the next few weeks to determine the those that need to be tested as well as the testing requirements. We will then develop a schedule for the testing.

**Infrastructure:** All CDER network and server components have been upgraded to be Y2K compliant. The next Y2K infrastructure priority will focus on upgrading personal computers. The deadline for Y2K certification of PCs is Sept. 1. OIT's Division of Infrastructure Management and Services is reviewing the CDER inventory and various upgrade options are being discussed.

**Business Planning:** The CDER business impact analysis is complete. The business process continuity contingency plan is in the review and comment phase. The next step will be to finalize the plan and develop a testing schedule. Testing will involve OIT and CDER functional areas. The deadline for completion of testing is Sept. 1.

**Outreach:** CDER outreach activities continue to expand. Greater emphasis is being given to the need to ensure the availability of drugs to consumers to prevent drug shortages in the future. As part of that effort, **David Isom, Judy McIntyre** and **Khyati Roberts** attended the joint government and industry Y2K forum sponsored by PhRMA in February. The Y2K Outreach Task Force (page 1) is led by **Mark Goldberger, M.D.,** and is responsible for developing a plan to increase consumer awareness of the Y2K readiness of the pharmaceutical industry.

**—Judy McIntyre** (MCINTYREJU)

*Web registration for OIT classes:* OIT is now accepting Web registration requests for OIT spring semester classes. OIT will provide support for both the Web registration and the existing e-mail registration system.

The user-friendly form is located on the OIT's intranet site, http://oitweb/oit/, under the Training button. The form provides a quick-and-easy way to register for classes. You only have to type in your username, first name, last name and then select the desired class from the pull-down menu.

The spring semester registration announcements will provide all of the information necessary to register for an OIT class via the Web. We highly encourage you to use the Web registration system because these requests will be processed more frequently.

**—Lana Kostecka** (KOSTECKAL).

*NEST and NEDAT classes:* OIT offers two classes that outline the technologies used for electronic review of NDA text and data. The NDA Electronic Submissions Training and NDA Electronic Data Analysis Training courses incorporate the use of several applications in the context of an electronic NDA review and are being updated to reflect the publication earlier this year of the final guidance, *Providing Regulatory Submissions in Electronic Format—NDAs*.

In addition to changes in the guidance, a new version of Adobe Acrobat is anticipated for this spring. Because of the importance of Adobe Acrobat in creating and reviewing of NDA text and images in Portable Document Format, the updated courses will coincide with the new release of Adobe Acrobat in the Center. For those who have already attended the NEST and NEDAT courses, documentation outlining what's new will be available with the course updates. Look for an announcement this spring.

**—Tim Mahoney** (MAHONEYT)

*DFS Training:* OIT offers monthly training on the Division Files System. DFS provides document management, tracking, archiving, search, retrieval and electronic signature capabilities for internally generated review documents. Training includes instruction on checking in review documents, routing them for final sign-off, and retrieving documents contained in the DFS repository. Training is offered for those who have received or are going to receive the software on their PC. In response to user feedback, a new version, DFS 1.4, that offers enhanced search and response time has been released. DFS training will be updated to reflect the new software release.

Information on all courses can be found on OIT's intranet, http://oitweb/oit/.

**—Lana Kostecka** (KOSTECKAL

*QA Development Project:* We are working with OIT's senior managers to define the model for project management in OIT's matrix organization. When OIT reorganized a year and a half ago, the new structure reflected OIT's various functional responsibilities: software applications development; infrastructure support; data management; quality assurance; and technology services. While day-to-day operational activities may be confined to a single OIT division, most of OIT's large service projects are crosscutting and require the services and resources of multiple OIT divisions. These depend on matrix management with clearly defined roles and responsibilities if they are to be successful.

The project management model will identify responsibilities for oversight, lines of communication, reporting requirements and resource negotiations. For example, the model will clarify who initiates and prioritizes projects, who reviews the status of each project, who assigns project managers, who assigns staff members to a pro-

*(Continued on page 11)*

# OCPB Invites OGD Reviewers to 6th Science Day at Shady Grove

*(Continued from page 1)*

grounded in the best science, FDA scientists need to stay current in the areas of technology and regulatory issues pertaining to their field. With this in mind, OCPB organizes a biannual science day to promote regulatory research and to create an opportunity for its reviewers to discuss cutting edge science. Science Day is also a forum for reviewers to present their professional development work and receive peer review prior to their presentations at national meetings.

The podium and poster presentations are evaluated by the attending reviewers, and gift certificates go to the first- and second-place poster and podium presenters.

One of OCPB's newest reviewers, **Gabriel Robbie, Ph.D.,** gave a podium presentation entitled: "A comparison of methods for estimation of effective half-life." Dr. Robbie discussed results of the comparison of the various methods from literature data and from simulations, as well as the merits and disadvantages of each method. He won the first place award for podium presentations.

**Venkat Jarugula, Ph.D.,** from Division of Pharmaceutical Evaluation II, presented a talk on the use of serum testosterone levels as a surrogate marker for the approval of testosterone replacement products. Dr. Jarugula discussed the reasons for using testosterone serum levels as a surrogate marker and as the primary end point for the regulatory approval of testosterone replacement products such as transdermal patches. He said, however, that questions relating to defining successful testosterone replacement for statistical analysis are still under debate. Dr. Jarugula won the second place prize in podium presentations.

**Joga Gobburu, Ph.D.,** a clinical pharmacology fellow at Georgetown University's Center for Drug Development Science who spends 50 percent of his time in OCPB, introduced clinical trials simulation and gave an example of its use. Clinical trials simulation is a topic receiving considerable attention from the pharmaceutical industry. Dr. Gobburu stressed that modeling and simulation approaches allow comparison of competing trial designs. They help in optimizing informativeness and efficiency and integrates information from all phases of drug discovery and development. They serve as a dress rehearsal for the actual execution of the trial and analysis and allow more robust protocol design and analysis endpoints.

**Tom Parmalee, Pharm.D.,** presented a podium discussion of hepatic impairment studies in drug development. During his presentation, Dr. Parmalee discussed the results of multiple linear regression correlations involving the clinical, biochemical and pharmacokinetic parameters and whether hepatic impairment affects certain enzyme systems or isoenzyme forms to any extent.

**Ray Baweja, Ph.D.,** gave a presentation that addressed the issue of understanding, simplifying and improving the early IND process by listening to our customer, the pharmaceutical industry. Perspectives on how to move drug development comprehensively and thoughtfully forward were discussed.

Poster presentations included:

- Influence of antipsychotic, antiemetic, and antifungal drugs on the function of p-glycoprotein in Caco-2 cells, **Safaa Ibrahim, Ph.D.,** and colleagues. Dr. Ibrahim won first prize for her poster.
- Evaluation of *in vivo/in vitro* correlations: a suggested approach using the prediction interval, **Michael Fossler, Pharm.D., Ph.D.** Dr. Fossler took second prize in the poster division.
- Utility of cholinesterase inhibition in the PK, PD and BA studies of anticholinesterases (anti-AChE), **Sayed Al-Habet, Ph.D.,** and colleagues..
- Troglitazone induces CYP3A4 in cultured human hepatocytes, **E.L. LeCluyse, Ph.D.,** and colleagues.
- Clinical relevance of labeling of food-effect bioavailability studies, **Ameeta Parekh, Ph.D.,** and colleagues.
- Population pharmacokinetics of ticarcillin and clavulanate by **Prabhu Rajagopalan, Ph.D.,** and **Francis R. Pelsor, Pharm.D.**
- Prediction of the effect of systemic acidosis (SA) on lidocaine (L) disposition kinetics in pigs using a physiologically based pharmacokinetic (PBPK) model, **H. Zhao, Ph.D.,** and colleagues.
- Clinical pharmacology studies in patients with renal impairment (RI): past experience and regulatory perspectives, **Safaa Ibrahim, Ph.D.,** and colleagues.

The sixth OCPB Science Day was an excellent professional development exercise, an intellectual learning experience and an opportunity to discuss science one-on-one with colleagues.

*Vanitha Sekar, Ph.D., is an OCPB reviewer. Mike Fossler, Pharm.D., Ph.D., is a Senior OCPB reviewer. Larry Lesko, Ph.D., is OCPB Director.*

# QA Development Project to Use Matrix Management Model

*(Continued from page 10)*

ject and who resolves issues involving resources, priorities, and budgets.

The QA development project team developed and presented a proposed matrix management model to the OIT Director, immediate office managers, and each OIT division and staff director at the end of January. OIT senior staff met in mid-February to discuss the model as a group. In order to resolve issues raised at the meeting, a subcommittee of senior managers has been formed to work with the project team to finalize a model and transition plan. A kick-off meeting of the subcommittee was held and the group will determine a target deadline for the final model.

An OIT management model is a prerequisite to completing the improvement project plan. With the model, improvement policies and guidance can be written.

Information on the QA Development Project is available on the CDER intranet, http://oitweb/oit/, under OIT Activities. The OIT improvement project plan will be posted once it is approved.

**—Vali Tschirgi** (TSCHIRGIV)

*Judy McIntyre is a supervisory computer specialist on OIT's QA Staff.*

# Secretaries' Week Activities to Include Special Program April 23

The Center will sponsor a program, "Celebrate the Secretary 1999," at the Gaithersburg Hilton on April 23 from 9:30 a.m. to 2 p.m.

The program will be a time to celebrate and be proud of the work that secretaries and support staff do for the public health.

A performance enhancing training session will highlight the activities of this capstone event for the Center's celebration of Secretaries' Week.

VIP speakers for the event include **Janet Woodcock, M.D.,** Center Director; **Minnie Baylor-Henry,** Director, Division of Drug Marketing, Advertising and Communications; **Eric Sheinin, Ph.D.,** Director, Office of New Drug Chemistry; **Margaret Bell,** EEO Staff; **Nancy Smith, Ph.D.,** Director, Office of Training and Communications; and **David Isom,** Director Office of Information Technology.

Graduates of the New Horizons program will discuss the Center's skill-building program for secretaries.

Luncheon will be served. Look for more information in your e-mail about this and other events that will take place during Secretaries' Week.

# OTC Labeling Rule Promises Safer Use of Frequently Taken Medicines

*(Continued from page 1)*

making OTC drug labels more readable for consumers. They simplified the OTC drug label language by providing a list of interchangeable terms and simple words in signal headings.

In many cases, OTC drugs with the new labeling will begin appearing on the shelves within the next two years. All of the more than 100,000 OTC drugs will be required to adopt the new labeling within the next six years.

FDA is developing a public education campaign to help consumers understand how the new labels can be used to learn more about OTC medications. The campaign will also advise consumers to ask healthcare providers, such as doctors and pharmacists, about these medications.

The FDA proposed the label regulation in February 1997 and crafted the new label format based on discussions with consumer and industry groups and from almost 2,000 comments the agency received on the proposed rule.

"Starting here and now, when children wake up sick in the middle of the night, parents won't have to read a dictionary to read the directions," Gore said, "and people will not need a magnifying glass to find out what is in their medicine."

FDA Commissioner **Jane E. Henney, M.D.,** said "The improved label will make it easier for patients and consumers to select the appropriate over-the-counter product, and it will help them use that product more effectively."

Adverse drug reactions cause about 5.5 percent of the 31 million hospitalizations each year. If the new labels reduce even a small percentage of those, millions of dollars will be saved. More information about the new rule can be found on CDER's Web site at: http://www.fda.gov/cder/otc/label/default.htm.

# Y2K Outreach to Industry, Drug Safety, Stakeholders' Meeting Discussed

*(Continued from page 1)*

He said that the Y2K bug is a subset of other problems in drug distribution and supply that always occur. "By and large," he said, "it should be handled by contingencies built into the system."

The team will also check with industry on how they will meet increased demand and address concerns about sole source drugs and drugs that are rarely used or used for rare disorders.

Consumer fears of a shortage may create shortage situations as a result of unnecessary stockpiling. The Center may ask for help in disseminating public messages once it has a better picture of the situation.

(The other members of the task force, who weren't at the meeting, are: **Jerry Phillips,** OPDRA; **Judy McIntyre,** OIT; **Linda Brophy** and **Paul Stauffer,** OTCOM; **Betty Jones,** Compliance; **Norman Schmuff,** ONDC; **Koung Lee,** OGD; **Brad Leissa,** ODE IV; and **Khyati Roberts,** Executive Operations Staff.)

Once user fees resolved consumer complaints about drug review times, it was inevitable that questions about drug safety would emerge, Dr. Woodcock told the meeting.

"Bottom line," she said, "we don't think that drug safety concerns are related to the quicker review process. We are trying to focus on the real problem and how to have a dialogue with the public."

She said that a review of the literature over several decades reveals that there are fairly consistent estimates of about 100,000 deaths in hospitalized patients annually that can be attributed to medications.

Most of those injuries are from known side effects. There are both unavoidable and avoidable known side effects. Other sources of injury can be medication errors and product defects.

The meeting participants thought that the number of unknown side effects was both difficult to estimate without prospective studies but likely to be a very small number. Dr. Woodcock obtained feedback on the Agency's initial efforts at defining a risk management framework for its regulated products.

"We think we are part of a whole system," Dr. Woodcock said. "Everyone needs to sit down and have a conversation. We need to diagnose before rushing in to treat."

The Agency's post-marketing system isn't set up to handle known side effects, she said. "It's set up to detect the unknown side effects. We're not sure what our role is in the known side effects. Traditionally that has been a part of medical practice."

Dr. Nightingale briefed the meeting about the April 28 stakeholders meeting and how to engage in the activity. The first part of the meeting will involve the commissioner and be videoconferenced from Washington. Following that, the centers will hold their own meetings with CDER's meeting taking place in Philadelphia.