

Capsule

Winter 2009

University of Maryland School of Pharmacy
Magazine for Alumni and Friends

THE Expanding Scope OF Community Pharmacy



Dean's Message

The University of Maryland School of Pharmacy continues to embrace the principles and foundation laid by the many pharmacists, researchers, and students who have worked in our halls as educators, leaders, and advocates since our founding in 1841. We may have grown in size and complexity over the decades, but I'm proud to say that those principles remain at the heart of our growth.

Today, though, we are teaching a new generation of pharmacists—ones who serve daily on the front lines of health care and are the most accessible members of that health care team.

These pharmacists are well-trained in dispensing and in areas such as patient counseling, medication therapy management, collaborative drug practice, chronic disease management, immunization administration, and other direct patient care skills. By offering these expanded services, School of Pharmacy-trained pharmacists are making a direct and obvious impact on the lives of the patients for whom they care.

As a comprehensive school, it is vital to also build upon our foundations in pharmaceutical sciences and pharmaceutical health services research. We are expanding upon our expertise in drug formulation by investigating the benefits of nanomedicine and pharmacogenomics, which hold the promise of drugs delivered to specific disease targets and of medications tailored for individuals based upon their genetic makeup.

Our health services researchers are ramping up their efforts in the drug safety arena, through pharmacovigilance studies that focus on the safety and cost-effectiveness of marketed drugs in community populations.

The School's goals for the future of pharmacy practice, nanomedicine, pharmacogenomics, and drug safety research combine with the expertise of our alumni working in these areas to set us on a path for success. The feature stories in this issue of *Capsule* highlight the strength and influence of this work on our communities and the health of our nation.



As alumni and friends of this prestigious institution, your growing support and involvement send a strong message signifying your belief in our mission and vision and, ultimately, our success. That support is more important than ever in these tough economic times as we continue to offer student scholarships, fund important research projects, and expand patient care and outreach programs to improve our changing world.

I value your input as alumni and friends of the School of Pharmacy and look forward to hearing from you. All of us at the School wish you all a happy and healthy winter season.

That's it for now.

Natalie D. Eddington, PhD '89, BSP
Dean
neddingt@rx.umaryland.edu

Capsule Contents

University of Maryland
School of Pharmacy
Alumni Magazine

Winter 2009



2 SCHOOL NEWS

7 THE EXPANDING SCOPE OF COMMUNITY PHARMACY BY CHRISTIANNA MCCAUSLAND

11 A LARGE DOSE OF DRUG SAFETY CAN SAVE LIVES BY RANDOLPH FILLMORE

14 RESEARCHERS' SMART DRUGS PROVIDE MORE CONTROL WITHIN THE BODY BY JONATHAN BOR

17 WHERE ARE THEY NOW?

19 ACADEMIC NEWS

22 DONOR PROFILE

24 ALUMNI NEWS

BECKY CERAUL, *Capsule Editor*
Director, Communications
and Marketing
School of Pharmacy

SUSIE FLAHERTY, *Senior Editor*
CHRIS ZANG, *Editor*
JULIE BOWER, *Designer*
Office of External Affairs

Special thanks to the
following contributors:

Michele Ewing
Executive Director, Development
and Alumni Affairs

Alison Davitt
Director of Major Gifts

Peggy Funk
Assistant Director, Alumni Relations

Steve Berberich
Media Relations Specialist
Office of External Affairs

Yara Haddad, Class of '10

We welcome your comments, news, and suggestions for articles. Send your ideas to Becky Ceraul at the University of Maryland School of Pharmacy, 20 N. Pine St., Suite 730B, Baltimore, MD 21201. E-mail: rceraul@rx.umaryland.edu; Telephone: 410-706-1690; Fax: 410-706-4012.

Copyright © 2009 University of Maryland School of Pharmacy



From left: UMB President David J. Ramsay, Dean Eddington, and Gov. Martin O'Malley

Ground is Broken for Pharmacy Hall Addition

Maryland Gov. Martin O'Malley and more than 300 faculty, staff, students, alumni, donors, campus officials, and local and state legislators gathered at the School of Pharmacy on Sept. 19 for the groundbreaking ceremony for the School's \$67 million Pharmacy Hall Addition.

With the new building, the School of Pharmacy is taking a vital step in addressing the national shortage of pharmacists and continuing the School's leadership in educating pharmacy professionals and conducting bioscience research.

"The School of Pharmacy has consistently been a national leader, and this new facility will be a foundation for the future for the School," said David J. Ramsay, DM, DPhil, president of the University of Maryland, Baltimore (UMB).

Pharmacy Hall Addition, a seven-story, 112,565-square-foot building, will provide students and faculty with new space for lecture rooms, experiential learning facilities, and research laboratories. It also will include a dispensing laboratory with state-of-the-art robotics, which allows pharmacists to dedicate more time to other critical patient care duties.

The additional space also will allow the School of Pharmacy to increase its enrollment in coming years, producing dozens more pharmacists to practice in community, hospital, and long-term care settings, in addition to academia, industry, and government.

Dean Natalie D. Eddington, PhD, said that the new building will allow the School to educate a new kind of pharmacist, one who is well-trained to handle expanding health care duties. She added that today's pharmacist is often the most accessible member of the health care team, playing a vital role in managing drug safety and providing counseling for chronic diseases such as diabetes.

"It's not a matter of mainly handling prescription



demands," Eddington said. "Today's front-line pharmacist is moving from behind the counter to counsel more patients, administer vaccines, manage medication therapies, monitor vital signs, and share new clinical knowledge on how best to manage multiple medications and chronic diseases."

Equally important, she said, is the additional space and resources allocated for research. "With four floors of Pharmacy Hall Addition dedicated to bench-side research, our faculty will be on the forefront of discovering new, novel, and improved therapeutics leading to our ultimate goal of personalized medicine," Eddington said. "The School's research program provides our students with access to cutting-edge science. It gives them a foundation for the innovation in pharmacy practice and pharmaceutical research that comes from being taught by faculty who are experts in their fields."

"Today's ceremony marks more than just a groundbreaking," added O'Malley. "Building on the significant role that UMB is already playing in advancing Maryland's global position in biotechnology, medical innovation, and scientific discovery, the University of Maryland School of Pharmacy is among an elite list of state institutions that are providing world-class medical training and preparing Marylanders for the jobs of tomorrow."

To help train pharmacists with expanded health care roles, facilities in the new building will be designed to evaluate how students carry out clinical examinations of patients. A new patient-interaction suite will accommodate 48 students to practice patient counseling.

The building will include two 200-seat lecture halls and an 80-seat lecture hall equipped for distance learning. In addition, wireless Internet service will be available throughout the building. Scheduled to open in fall 2010, the new building will be funded by \$62 million in state funds and \$5 million in private funds. ☼

Please visit www.pharmacy.umaryland.edu for construction updates and photos.

New Associate and Assistant Deans Named



Raymond Love



Lisa Lebovitz



Shannon Tucker

Three new leadership positions have been created at the School of Pharmacy to oversee the continuing growth of distance-learning technology, the curriculum revision process, and institutional assessment. Raymond Love, PharmD, a professor of pharmacy practice and science, has been named associate dean for curriculum, instructional design and technology. Lisa Lebovitz, JD, has been named assistant dean for academic affairs, and Shannon Tucker, MS, has been named assistant dean for instructional design and technology.

Love, a 1977 graduate of the School of Pharmacy, has been a member of the faculty for more than 20 years. He developed and continues to direct the School's Mental Health Program, which provides pharmacy services for the Maryland Mental Hygiene Administration. Love has served as vice chair of the School's Department of Pharmacy Practice and Science and chaired the School's Curriculum Committee, where he led efforts to revise the curriculum to meet new accreditation standards.

Love has been a member of the Maryland Board of Pharmacy, and was an architect of the School's P³ (Patients, Pharmacists, Partnerships) Program to expand patient self-management services for those with chronic diseases. His research focuses on new treatments for schizophrenia and

mood disorders, the delivery of pharmacy services to individuals with mental health problems, and pharmacy ethics. He has been a principal investigator or co-principal investigator on contracts and grants totaling more than \$40 million.

Instructional design and technology are areas of increasing focus as the School furthers its distance-learning program at the Universities at Shady Grove and conducts its first major curriculum revision since the move to an entry-level Doctor of Pharmacy program in 1993. Love will

provide leadership in these efforts.

Lebovitz, previously director of academic accountability and assessment, earned a Bachelor of Science degree in business administration/human resource management from Duquesne University and a law degree from Duquesne University School of Law. As assistant dean for academic affairs, Lebovitz will serve as a resource on accreditation, academic policies, and faculty development issues, manage the School's dual degree programs, academic pathways, and the academic scheduling process, and facilitate institutional assessment.

Tucker, previously director of instructional technology at the School, earned a bachelor's degree in imaging and digital arts from the University of Maryland, Baltimore County and a master's degree in interaction design and information architecture from the University of Baltimore. As assistant dean for instructional design and technology, she will design and supervise training, documentation, and services to support the School's use of educational design strategies and technology and coordinate the planning and implementation of new instructional technologies and products. She also will manage the development and implementation of Web-based applications to support academic and administrative tracking of students, curriculum, and other administrative functions. ☼

Pharmacy Residents, New Faculty Attend Teaching Excellence Day

Fifty-five new School of Pharmacy residents and faculty had the opportunity to interact with more experienced instructors during the School's annual Teaching Excellence Day in July. Led by senior faculty members Mary Lynn McPherson, PharmD '86, and Richard Dalby, PhD, the "students" were exposed to a full day of "how-tos" and "how not-tos" on creating and giving presentations, running audiovisual equipment, teaching one-on-one and in small groups, writing learning objectives and exam questions, and providing feedback to students.

The course, started 10 years ago, was designed to provide skills and a foundation for the attendees' careers as teachers in the classroom, the lab, the clinic, and a variety of other practice sites. ☼



Laurels

Larry Augsburger, PhD '67, BSP '62, received the Dale E. Wurster Research Award in Pharmaceutics from the American Association of Pharmaceutical Scientists (AAPS).

Larry Augsburger, PhD '67, BSP '62, and **Stephen Hoag, PhD**, published *Pharmaceutical Dosage Forms*, a three-volume set of books.

Robert Beardsley, RPh, PhD, was named Mentor of the Year by the Maryland Pharmacists Association (MPHA).

Cynthia Boyle, PharmD '96, FAPhA, has been accepted into the American Association of Colleges of Pharmacy (AACP) Academic Leadership Fellows Program, which is designed to increase academic leadership in pharmacy schools.

Lynette Bradley-Baker, PhD '99, BSP '92, received the Henry C. Welcome Fellowship from the Maryland Higher Education Commission.

Lisa Charneski, PharmD, published "Eculizumab in Paroxysmal Nocturnal Haemoglobinuria" in the journal *Drugs*.

Sheila Curry, MS, of the Department of Pharmaceutical Health Services Research, was named the University of Maryland, Baltimore (UMB) August 2008 Employee of the Month.



UMB President David J. Ramsay and Sheila Curry

Thomas Dowling, PharmD, PhD, published "Quantification of Renal Function" in the book *In Diprio* and "Peginterferon Pharmacokinetics in African American and Caucasian American Patients with Hepatitis C Virus Genotype 1 Infection" in the journal *Clinical Gastroenterology and Hepatology*. He also published "Disclosure and Ethical Conduct of Clinical Research" in the October 2008 issue of the *American Journal of Health-System Pharmacy*.

Stuart Haines, PharmD, was the guest editor of the Aug. 1, 2008, issue of the *American Journal of Health-System Pharmacy*.

Bryan Hayes, PharmD, Wendy Klein-Schwartz, PharmD '77, and **Suzanne Doyon, MD**, published "Frequency of Medication Errors with Intravenous Acetylcysteine for Acetaminophen Overdose" in the June 2008 issue of *The Annals of Pharmacotherapy*.

Stephen Hoag, PhD, has been named a delegate to the United States Pharmacopeial Convention.

Ronald Kasl, a systems programmer, was elected to the UMB Staff Senate.

Wendy Klein-Schwartz, PharmD '77, received the W. Arthur Purdum Award from the Maryland Society of Health-System Pharmacists.

Wendy Klein-Schwartz, PharmD '77, and **Bryan Hayes, PharmD**, published "Comparison of Toxicity of Acute Overdoses with Citalopram and Escitalopram" in the *Journal of Emergency Medicine*.

Cherokee Layson-Wolf, PharmD '00, and **Jill Morgan, PharmD**, published "Pharmacy Continuity of Care: What Do Community Pharmacists Need From an Acute Care Hospital to Improve Continuity of Pharmaceutical Care?" in *Disease Management & Health Outcomes*.

Mary Lynn McPherson, PharmD '86, BCPS, CDE, has been named vice chair for education in the Department of Pharmacy Practice and Science. She also published "Management of Diabetes at End of Life" in *Home Healthcare Nurse*. She also presented "Opioid Conversion Calculations" at PainWeek '08 and collaborated on a poster titled "Assessing the Societal Burden of Prescription Opioid Abuse Among Patients with Chronic Pain: A Conceptual Model."

Sarah Michel, PhD, was named the School of Pharmacy's AACP Teacher of the Year for the 2007-08 academic year.

C. Daniel Mullins, PhD, has won a Fulbright Senior Specialist grant and will travel to the National University of Ireland at Galway to help develop a program in health technology assessment.

James Polli, PhD, has been elected a Fellow of AAPS.

Charmaine Rochester, PharmD, BCPS, CDM, CDE, and **Francoise Pradel, PhD**, published "Students' Perception and Satisfaction With a Web-Based Human Nutrition Course," in the August 2008 issue of the *American Journal of Pharmaceutical Education*.

Charmaine Rochester, PharmD, BCPS, CDM, CDE, and **Deborah Sturpe, PharmD, BCPS**, published "Evaluation of Student Pharmacists' Perception of Skills and Attitudes to Provide Medication Therapy Management Services" in the fall 2008 issue of the *International Journal of Pharmacy Education and Practice*.

Magaly Rodriguez de Bittner, PharmD '83, BCPS, CDE, has been elected president of the MPHA. She was also elected by her peers as a Distinguished Practitioner in the National Academies of Practice in Pharmacy.

David Roffman, PharmD '73, BSP '70, published "Aliskiren: Will a Novel Mechanism Improve Clinical Outcomes?" in the July issue of the *American Journal of Health-System Pharmacy*.

The **School of Pharmacy** and preceptor **Frank Pucino, PharmD**, of the Clinical Center at the National Institutes of Health have been awarded the 2008 AACP Crystal APPLE Award for achieving excellence in providing exemplary experiential education for students.

Meghan Sullivan, PharmD, received the 2008 American Foundation for Pharmaceutical Education-National Association of Chain Drug Stores Foundation Faculty Fellowship in Community Pharmacy Practice.

Kelly Summers, PharmD, published "Update of Key Articles in Hypertension" in the journal *Pharmacotherapy*.

Kelly Summers, PharmD, **Kristin Watson, PharmD**, and **Robert Michocki, PharmD '75, BSP '71**, published "Hypertensive Crises" in the ninth edition of *Applied Therapeutics: The Clinical Use of Drugs*.

Peter Swaan, PhD, has been named editor-in-chief of the journal *Pharmaceutical Research*, the official journal of AAPS.

James Trovato, PharmD, published "Lapatinib: A Dual Tyrosine Kinase Inhibitor for Metastatic Breast Cancer" in the *American Journal of Health-System Pharmacy*. He was also chosen as chair-elect of the American Society of Health-System Pharmacists Section

of Clinical Specialists and Scientists Executive Committee.

Kathryn Walker, PharmD, presented "New and Novel Medication Development" at PainWeek '08.

Kristin Watson, PharmD, published "Cefazolin-Induced Hypoprothrombinemia" in the July issue of the *American Journal of Health-System Pharmacy*.

Angela Wilks, PhD, received the University of Maryland, Baltimore Rathmann Biotechnology Fellowship for her work on a novel class of antimicrobials.

Julie Zito, PhD, has been appointed a special government employee to the Food and Drug Administration, Drug Safety and Risk Management Advisory Committee.

Ilene Zuckerman, PharmD '83, PhD, has received a J. William Fulbright Foreign Scholarship Fellowship to expand her research of elderly health care in Thailand.

\$1 Million CareFirst Grant Funds School Health Program

In a grass-roots effort to reduce racial disparities in health care, the School of Pharmacy and CareFirst BlueCross BlueShield have partnered to educate and empower African-American men in the greater Baltimore metropolitan area to improve their cardiovascular wellness. The Maryland Men's CardioVascular Health Promotion, or MVP program, for short, has been made possible by a \$1 million grant from CareFirst.

MVP has enrolled 150 African-American men with risk factors of cardiovascular disease. In completing the six-month program, participants have their vital signs assessed, learn how to maintain healthy lifestyles, and work toward their health goals. Each also will recruit two future participants and serve as an MVP mentor.

The initial three-year pilot is designed to help 600 African-American men in Baltimore live longer, healthier lives with increased access to quality, affordable health care. During the program, MVP men will be helped in finding doctors and pharmacists and encouraged to lead healthy lifestyles.

"The team element and focus to reduce racial disparities in health care makes the MVP program a unique endeavor and one CareFirst is proud to support," said Jon Shematek, MD, CareFirst's senior vice president and chief medical officer. "There is no greater need than to combat cardiovascular disease, the single greatest killer of all Americans and which is most prevalent among African-American men."

The Centers for Disease Control and Prevention estimates that roughly 47,500 African-American men die each year from major cardiovascular diseases. Equally as alarming, African-American men have the shortest reported life expectancy in the U.S.

Fadia Shaya, PhD, MPH, associate professor of pharmaceutical health services research at the School, is leading the MVP initiative.

"Treating cardiovascular disease isn't difficult, but too many African-American men don't get diagnosed until heart attacks or strokes put them in the emergency room—or worse," Shaya says. "The purpose of the MVP program is to empower men to take control over their health. We're confident that having men build their own teams is a faster, more sustainable, and effective way of promoting cardiovascular health than by reaching out to them one at a time. Each person can be an MVP for himself and his friends." ☀



Polli Named Shangraw/Noxell Endowed Chair in Pharmaceutical Sciences

James Polli, PhD, has been named the School of Pharmacy's Ralph F. Shangraw/Noxell Endowed Chair in the Pharmaceutical Sciences. Polli has been on faculty at the School since 1993, and has made invaluable contributions in his current position as vice chair for academic affairs in the Department of Pharmaceutical Sciences, and in his previous position as director of the department's graduate program.

Polli's research program has focused on oral bio-pharmaceutics, with particular interest in the bile acid transporter, drug intestinal permeability assessments, and pharmacokinetic applications. He has funded his research through grants from the pharmaceutical industry, the Food and Drug Administration (FDA) and the National Institutes of Health (NIH).

His work with the bile acid transporter exploits the use of this transporter expressed in the small intestine to enhance the delivery of pro-drug substrates. He also has extended his research program to address public quality standards including work on extension of biopharmaceutical classification system waivers, dissolution testing, novel bioequivalence metrics, and anti-counterfeit technology.

Polli recently received funding from the FDA for clinical studies to determine excipient effects, as well as formulation scaling between humans and animals, where dosage forms are manufactured at the School.

A fellow of the American Association of Pharmaceutical Scientists, Polli is an editorial board member of several journals and is vice chair of the U.S. Pharmacopeia Expert Committee on Biopharmaceutics.

"Dr. Polli's appointment as the Shangraw/Noxell Endowed Chair is a reflection of his outstanding research achievements, and his commitment to the School and the education of both professional and graduate students," says Dean Natalie D. Eddington, PhD. "He clearly has had an impact on better understanding the science of drug transporters, facilitating methods to enhance drug bio-availability, and applying appropriate techniques to address current problems in our drug distribution mechanisms."

The Ralph F. Shangraw/Noxell Endowed Chair in the Pharmaceutical Sciences was established in honor of Ralph F. Shangraw, PhD, a distinguished educator and scholar at the University of Maryland School of Pharmacy who devoted his career to academic research, teaching, and service. Shangraw made outstanding contributions in the areas of pharmaceuticals, industrial pharmacy, and drug policy and contributed to the education of generations of pharmacists and pharmaceutical scientists. ☼



Practice Lab at Shady Grove Opens

A fully equipped pharmacy practice lab opened in August at the Universities at Shady Grove for School of Pharmacy PharmD students studying at the satellite campus. The lab features a pharmacy fully stocked with prescription and over-the-counter medications, and sterile prep and patient interaction areas.

Students will use the lab to learn how to properly dispense prescription medications, to use aseptic techniques to prepare IV medications, and to practice their patient counseling skills. Shown in the new practice lab are first-year students (from left) Minhvan Tran, Fatemeh Tavakkoli, Parastoo Shariat, and Keith Lau. ☼

Balassone Memorial Lecture

Daniel Buffington, PharmD, MBA, was the guest speaker at the 2008 annual Francis S.

Balassone Memorial Lecture in October. Buffington, president and CEO of Clinical Pharmacology Services in Tampa, Fla., presented "Winning or Losing the Battle for Reimbursement Services: An Entrepreneur's Perspective." Following his presentation, 23 students from the classes of 2009, 2010, and 2011 received leadership awards. ☼



Dr. Buffington and Dean Eddington

THE Expanding Scope OF Community Pharmacy

BY CHRISTIANNA MCCAUSLAND



The delivery of health care is changing at a rapid pace. There are more people living with chronic diseases, more medications available for treatment, and more people being released sooner from the hospital with more in-home care instructions than ever before. Though medical advances are allowing patients to live longer, fuller lives, they also can cause confusion that leads to dangerous situations. When patients need guidance, they turn to the person they trust most: their community pharmacist.

"I get a lot more questions from patients about their care after some types of procedures than I used to," says Dixie Leikach, BSP '92, RPh, owner and pharmacist at Finksburg (Md.) Pharmacy. "There are a lot more

questions when they get home, and they don't feel comfortable calling their physicians."

Her husband, Neil Leikach, BSP '92, RPh, owner and pharmacist at Catonsville Pharmacy, explains that, "Patients feel maybe their doctor is too busy, and we're more accessible. You go into the doctor's office, and you have to wait 15, 20, 30 minutes or an hour and sometimes you only get a few minutes. You walk into our pharmacy, and we're right there in front of them and they can talk to us right away."

Pharmacists have long been a trusted resource for patients requiring explanations of their medications and associated illnesses. In today's dynamic health care arena, the pharmacist is building on that relationship of trust as

the field becomes less product-oriented and more patient-centered.

More pharmacists are now offering patient-specific services such as medication therapy management (MTM), wherein services are provided directly by a pharmacist to a patient and involve communication with primary care providers. Maryland is one of only five states to offer the national certificate training program in MTM developed by the American Pharmacists Association (APhA) and the American Society of Consultant Pharmacists.

Since the passage of collaborative practice and immunization legislation, pharmacists in Maryland can also provide influenza, pneumococcal, and herpes zoster (shingles) vaccinations, and consult with physicians on medications



NEIL LEIKACH AND KIMBERLY SGAMBATI

prescribed to patients. In addition, Maryland's P³ (Patients, Pharmacists, Partnerships) Program encourages patient self-management for those with diabetes and cardiovascular disease, with the aid of trained pharmacist coaches, physicians, and other community health resources.

Students must participate in advanced pharmacy practice experiences (APPE) in order to graduate. Working with independent preceptors like the Leikachs and other pharmacy partners such as CVS, Walgreens and Rite Aid, which are continuously enacting innovative programs, students at the University of Maryland School of Pharmacy gain the skills required to play a part in community pharmacy's emerging role.

LEADING BY EXAMPLE

The University of Maryland has always been on the cutting edge of pharmacy innovation. In 1993, it became one of the first schools to offer a Doctor of Pharmacy degree and, as early as 1994, the School was collaborating with local Giant pharmacies on a specialized diabetes program recognized by the American Diabetes Association. Today, the School is a proponent of Project Destiny, a joint initiative of the APhA, the

National Association of Chain Drug Stores, and the National Community Pharmacists Association. Project Destiny aims to create a business model that enables pharmacists to become "primary care pharmacists."

"In terms of a primary care pharmacist, it's seeing the patient as a whole, thinking about the conditions they have, and the medications used to treat them, and evaluating whether or not it's appropriate," says Cherokee Layson-Wolf, PharmD '00, assistant professor in the Department of Pharmacy Practice and Science (PPS). "The interesting thing about community pharmacy is that we get to see the whole patient because we see all the medications getting filled in addition to all the over-the-counter [OTC] medications they might be taking as well as herbals and vitamins."

BUILDING SKILLS

PPS Assistant Professor Fred Abramson, BSP '56, RPh, looks like he's sitting in the waiting area of a pharmacy. Actually, he is on the third floor of the School in the fully equipped Pharmacy Practice Laboratory, affectionately called "Fred Lab" by students. Here students receive hands-on training. In addition to learning the fundamentals of dispensing real



DIXIE LEIKACH

medications, the students learn how to supervise technicians and role play counseling scenarios with patients.

"You have to learn more today than you ever had to before," says Abramson, whose experience stretches back more than half a century. "It's your job to tell them how to take their medicine, how to use an EpiPen, an inhaler, and all these different devices."

Learning about patient counseling is an integral part of the curriculum. "We are concentrating on making sure each student knows to take the time to counsel their patients," says Meghan Sullivan, PharmD, PPS assistant professor overseeing the Pharmacy Practice Lab at the Shady Grove campus. "Yes, there's a lot of hustle and bustle in community pharmacy, but we need to remember to put the patient first. We're emphasizing the importance of doing this."

EXPERIENTIAL LEARNING

The practice lab gives students an opportunity to feel at home in the pharmacy setting, but only through experiential learning with trained preceptors can they grasp the vital and emerging role of the community pharmacist.

Preceptors such as Dixie and Neil Leikach, who have instructed for more than 10 years, provide University of Maryland School of Pharmacy students with a glimpse of real life as it looks from behind the counter. In the Leikachs'



SHERRY BUTLER



KRISTEN FINK



DENNIS FERGUSON



LISA WOHL

pharmacies, students are responsible for all facets of the business. Under pharmacist preceptor supervision, students participate in dispensing medications, interact with patients at the counter, administer immunizations, and counsel patients on everything from how to take their medications to how to use a diabetes meter. They also work with primary care doctors to develop cost-effective, efficacious health plans for patients.

“One reason I like having the students in my pharmacy is I feel like I learn just as much from them as they learn from me—what’s new, what’s happening at the School,” says Dixie.

“Because we work as owners in our stores, one thing I feel responsible for in this rotation is to show students that independent pharmacy is a viable way to use your knowledge,” adds Neil.

With some preceptors, students can see pharmacists who aren’t dispensing at all, like Kristen Fink, PharmD, CDE (Certified Diabetes Educator), at Fink’s Pharmacy. Her father handles medication order fulfillment, so she can focus on her collaborative practice care. In conjunction with a local doctor, Kristen Fink has been working with diabetic patients for the past six months. The preceptor recognizes that her students are prepared to take on this emerging, clinically focused role.

“This is the first time some of

them are seeing this type of clinical management in a community pharmacy setting,” Fink explains. “I’ve been really impressed with the Maryland students. They teach them to think clinically, so that’s what they’re expecting to do; they expect to come out of school and apply all the skills they have learned.”

Fourth-year student Kimberly Sgambati entered pharmacy because she saw the crucial care she could offer people. In her rotation at NeighborCare pharmacy, she performed MTM interviews with 14 patients and made change recommendations for five people and counseled the others on the proper technique for taking their prescriptions. At Catonsville Pharmacy, under the direction of Neil Leikach, she administered flu vaccines.

“The reason I got into pharmacy was this idea that I’d be able to do more than dispense medications, that I would actually have a role in patient care and make a difference,” she says. Though she’s still debating her ultimate career path, “I’m excited by what I’ve seen in community pharmacy, and it’s enticing me more to go in that direction.”

Some of the most valuable lessons students get through their rotations are those that cannot be taught in a classroom. Like how to make time for MTM in a pharmacy that is filling 500 prescriptions a day, how to manage patient

personalities, how to help a patient on a fixed income get the most cost-effective drug plan, and how to be an advocate in a patient’s health management.

“I always thought of pharmacists educating patients to understand their medications or helping with OTC medications. But I think the biggest surprise is the difference they can make with interventions in terms of contacting prescribers and getting medications changed,” says fourth-year student Lisa Wohl. “I didn’t expect community pharmacists to be able to be a major player in disease state management.”

FACING CHALLENGES

Studies indicate that involving community pharmacists in a holistic patient care plan drives down emergency room visits and health care costs. Longitudinal data on the Asheville, N.C., program upon which Maryland’s P³ Program is based shows that overall health care costs decreased \$912 per patient annually and employee sick days were halved. According to data compiled by the APhA, when MTM services are provided the median return on investment by payers was 3-to-1, or a savings of \$4.5 million per year for a self-insured employer.

But the future role of the community pharmacist still faces challenges. In some ways, the challenge is pharmacists themselves who don’t want to



Outside the Box

The University of Maryland is uniquely positioned to be a leader in the development of primary care pharmacists due to its Center for Innovative Pharmacy Solutions (CIPS), which aims to optimize the role its pharmacists play in patient outcomes. CIPS is an advocate for innovation as well, speaking out for compensation for pharmacist-delivered care and training faculty, students, residents, and pharmacists on innovative practice implementation. As a center of forward-thinking leaders, CIPS expects to set the agenda for the future of pharmacy practice.

change from the dispensing role. In others, it can be doctors and nurses who are hesitant to have pharmacists take on a growing function within their scope of practice. But these concerns pale in comparison to the trouble of pharmacists receiving reimbursement for services.

Pharmacy remains a volume-driven business. Pharmacists are reimbursed for products, but not always for the time they take with patients. Though Medicare Part D covers some MTM, most insurance plans still cover little beyond the prescription. In a busy pharmacy where the pharmacist can barely keep up with filling prescriptions, this poses a challenge. The hope for the future is that robotics and pharmacy technicians will take on a large part of the dispensing role, leaving the pharmacist available to talk to patients. And as the pharmacist moves away from the dispensing role, reimbursement for pharmacy services will follow.

"In the next 20 years, I don't think it's going to be a dispensing profession," says Kristen Fink. "The patients are there, the doctors are onboard. As soon as we get the reimbursement part off the ground, it's going to be a great thing. There's definitely a need there."

Emerging clinical pharmacy

services like MTM are intangible. A patient cannot hold medication therapy management like they can a bottle of pills, but they can carry the experience out of the pharmacy with them just the same.

Preceptor Dennis Ferguson, BSP '79, pharmacy manager at Hill's Drug Store in Easton, Md., says the public needs to be educated on how pharmacists can assist them, not just through the traditional counseling they've come to expect but also with formal MTM programs, like those he runs for two Medicare Part D plans.

"I've said to people, 'You know, your plan allows you to have a conference to go over your medications,'" he says. "I don't think that people realize that they're entitled to these services and they don't ask for it."

Initiatives like Project Destiny offer hope for the future that a new business model for community pharmacy will emerge to formalize the profession's latest incarnation. Yet the best way to change the attitudes of doctors, patients, and those holding the purse strings is for pharmacists to lead by example, to embrace and advocate for their changing role.

Sherry Butler, BSP, pharmacy manager at Shoppers Pharmacy in Pasadena, Md., believes this is true. She is an MTM specialist, diabetes

educator, immunizing pharmacist, and preceptor. She also runs a weight management program through her store. She says that the more MTM and physician outreach she does, the more attitudes change.

"We need to educate people that this is a team effort and a team can better help the patient," she states. "We're showing everyone that pharmacists are worthy of doing more than counting pills."

The School of Pharmacy has always been ahead of the industry curve, while it embraced the knowledge that is key to anyone who will be in a position to dispense medication. Pharmacy is a dynamic industry, grappling with emerging technologies and roles while staying true to its fundamental science. As students emerge into this swiftly morphing future, the School prepares them to dispense in a demanding environment and also to act in a clinical context.

"Part of the responsibility of the School of Pharmacy is to improve the health of citizens in Maryland," explains Magaly Rodriguez de Bittner, PharmD '83, BCPS, CDE, professor and chair of PPS. "We must prepare and position our graduates to be proactive and to be contributors to answering health care issues in the state." ☼



A Large Dose of Drug Safety Can Save Lives

BY RANDOLPH FILLMORE

To the pharmaceutically uninitiated, Baycol, Bextra, and Vioxx may sound like partners in a law firm. But they are not, of course. Because they were shown to have safety risks that exceeded their therapeutic benefits, these drugs were pulled from pharmacy shelves years after the Food and Drug Administration (FDA) authorized their use based on initial safety and efficacy data.

The drug approval system in the United States, which involves a three-phase clinical trials process and a rigorous journey through FDA review, has gained the public's trust. But in this case, the system did not reveal at the time of product approval that these drugs were unsafe.

So, who is responsible for drug safety? The FDA? The pharmaceutical industry? Prescribers? Pharmacists? The answer is all of the above, but the University of Maryland School of Pharmacy is taking steps to further drug safety for all concerned.

Professor Sheila Weiss Smith, PhD, who in a 2007 editorial published in the *New England Journal of Medicine* charged the FDA with "sidelining safety," is first to note that faculty members in the School's Department of Pharmaceutical Health Services Research (PHSR) are on the "front lines" of drug safety. Their mission is to improve drug use and reduce adverse drug events by employing "pharmacovigilance."

"Pharmacovigilance is the study of the safety of marketed drugs under the practical conditions of clinical use in large

communities," says Ilene Zuckerman, PharmD '83, PhD, professor and chair of PHSR. "As a scientific endeavor, the impetus for this area comes mainly from post-marketing surveillance, mandated by the FDA within their regulatory oversight of pharmaceutical manufacturers."

In a field where there has been little publicly funded research, School faculty and researchers are blazing new territory with this focus. Some researchers, such as Zuckerman and Weiss Smith, and fellow department members Julie Zito, PhD, and Linda Simoni-Wastila, PhD, have been focused on pharmacoepidemiological research—the data-driven backbone for pharmacovigilance—for more than a decade and a half.

"In FDA parlance, we are doing Phase IV studies," says Zito, who is tightly focused on pediatric drug safety issues. "Not enough energy, resources or infrastructure are dedicated to assessing a drug in terms of safety after it hits the market."

Zito says that we should perhaps not be shocked when we find that a wonder drug was not a wonder drug after all.

"We have to wear a skeptical hat because much drug usage occurs for treating 'off-label' conditions—that is, when there is a lack of evidence for efficacy and safety. In pediatrics, as much as 75 percent of use is off-label," charges Zito.

She adds that the public concern, resources, and infrastructure to support research in pediatric drug safety—and results of that research that could save children's lives—lags



From left: Linda Simoni-Wastila, Julie Zito, and Ilene Zuckerman

the need for appropriate School of Pharmacy programs and graduates who can enter the drug safety field. Fortunately, pharmacoepidemiologists at the School have the support of their own Pharmaceutical Research Computing center, which is staffed by health care and information technology professionals who can manage and analyze large databases for empirical studies of drug safety research.

behind other child safety initiatives, such as car seats, for example.

"Pediatric drug usage often lacks evidence to support either effectiveness or safety," says Zito, who has served as a co-investigator on psychotropic drug safety studies that have included issues with Attention Deficit Hyperactivity Disorder, cardiovascular risk, and mortality. "We need to improve on current efforts in this area."

The formation of a School Center for Drug Safety is an idea whose time has come, says Zuckerman. Also, partnering with the private sector for best results is appealing. Sally Van Doren, PharmD '85, a member of the School's Board of Visitors, agrees.

"The School of Pharmacy has a great pharmacoepidemiology team," says Van Doren, president and CEO of BioSoteria, Inc., a company focused on drug safety surveillance through the drug's entire life cycle. "However, when it comes to pharmacovigilance and public safety, it's 'all hands on deck' and partnerships with academia, government, private sectors, and health care practitioners is the right path forward."

Partnering means forging research collaborations among public institutions and the private sector.

Van Doren's company lends its pharmacovigilance expertise to biopharmaceutical companies that don't have their own product safety surveillance team or those companies seeking advice on their obligations for safety monitoring and reporting to regulatory authorities.

In the long run, Van Doren says what her company does, and what pharmacovigilance means, is examine the safety of a drug product throughout its life cycle.

"We need utilization data from the point when a drug enters clinical studies in humans to when it enters the market, and then we need to monitor it for adverse reactions and implement effective risk mitigation strategies to minimize patient risk," she explains.

This often requires analysis of not only spontaneous, post-marketing adverse event reports from individual health care providers and patients, but also the use of large health care databases from Medicaid, insurance claims data or HMOs. Use of these large databases requires collaboration between academic and government agencies, such as the FDA and the Centers for Medicare & Medicaid Services.

As a result, well-trained pharmacoepidemiologists and others involved in pharmacovigilance are in demand and will be for the foreseeable future, hence

Sigal Kaplan, PhD '04, an epidemiologist with the FDA, recalls her training at the School of Pharmacy and the mentoring afforded her by Weiss Smith and others as she gained experience in analyzing large databases. According to Kaplan, her course work in the pharmacoepidemiology track was the basis for her understanding of various research study designs and for familiarizing her with health care databases that can be used for research on drug safety issues. At the FDA, she reviews protocols for post-marketing surveillance studies that use large databases of administrative claims and health records.

Weiss Smith, who is currently on sabbatical providing pharmacoepidemiology and regulatory science expertise to the National Cancer Institute, is working to identify factors that can predict severe side effects to drugs used by cancer patients.

"At NCI, I am working on a new initiative to stimulate research and training in pharmacoepidemiology and pharmacogenomics," explains Weiss Smith. "One major challenge is the misperception that the FDA and drug companies fund all the necessary pharmacoepidemiology research. But they look at safety from a very narrow regulatory perspective, and often do not address the questions doctors and patients need answered to make truly

informed decisions about medications.”

This “safety gap” and the role pharmaceutical health services research plays in bridging the gap, was the topic of a lecture Weiss Smith gave in December at a conference held at National Taiwan University in Taipei. Weiss Smith also recently hosted a conference sponsored by the School of Pharmacy and the Pharmaceutical Research and Manufacturers Association on best practices in “data mining” for pharmacovigilance from a pharmaceutical industry perspective.

Analysis of large databases is also the backbone of Simoni-Wastila’s research into drug safety as it pertains to adolescents, young adults, and the elderly. The problem faced by Simoni-Wastila is a “paucity of data” available for studying prescription drug misuse and abuse and concomitant drug safety issues.

“The abuse of prescription drugs has eclipsed the use of most illegal drugs,” she says. “In part, this may be because people see prescription drugs as safer than illegal drugs. Of course, many medications have addiction liability—they are



Sigal Kaplan

innocuous, like candy.”

For Simoni-Wastila, a solution for preventing prescription drug abuse is educating people who have prescription drug-related dangers lurking in their medicine cabinets and who might, often innocently, or other times recreationally, misuse drugs.

“Education needs to bridge parents, children, and providers,” says Simoni-Wastila. “There are myriad theories for the growing problem of prescription drug abuse, but the biggest factor is likely increased availability of abusable prescription drugs, especially to children. If providers prescribe a 30-day supply and people don’t use them all, they stay in the medicine cabinet where anyone has access.

“When it comes to adolescents, we know that boys are more likely to be risk takers. Girls and women, who get medications in a medical context, may start down a path to misuse and abuse unwittingly,” summarizes Simoni-Wastila. “The small but growing literature on adolescent prescription drug abuse leaves other questions unanswered.”

According to Simoni-Wastila, the misuse of prescription drugs with addiction potential by the elderly is not only an overlooked and growing problem but, with the aging of the baby boomer generation, it could become a hidden

epidemic. Using the Medicare Current Beneficiary Survey, she and colleagues made national prevalence estimates of medical exposure to medications with abuse liability in a 2005 article in the journal *Substance Abuse*.

“Nearly 22 percent of community-dwelling Medicare elders use at least one medication with addiction potential,” she cites. “Of these, opioids were the most frequent, followed by anxiolytics.”

For Zuckerman, one of the most important missions for the School of Pharmacy is to train the next generation of drug safety experts, researchers, and educators who will be able to help protect consumers.

“We have come a long way over the years and currently have a great breadth of research ongoing in the area of drug safety,” concludes Zuckerman. “Yet, there is a long way to go. Having a center dedicated to drug safety research and education will make a huge difference in changing the ‘culture’ of drug safety, whether in terms of reducing the risk of unintended misuse or addiction or being on the front lines of surveillance and risk management.” ☼



Sheila Weiss Smith



Sally Van Doren



Bruce Yu

Researchers' Smart Drugs Provide More Control Within the Body

BY JONATHAN BOR

The future of industrial pharmaceuticals could hinge on University of Maryland School of Pharmacy innovators who envision smart drugs—ones that would deliver the right dose to diseased tissues while sparing healthy ones that need to be left alone.

The innovators talk of drugs carried by nanotubes, gold nanoparticles, and long shoestring polymers: drugs formulated to target receptors or squeeze through leaky blood vessels that feed cancer tumors. They speak of medicines tailored for a patient's genetic makeup and medicines with imaging agents that light up on magnetic resonance imaging (MRI) scanners, enabling cancer specialists to see where the compounds are traveling in real time.

The drugs of the future could give clinicians something they have lacked in sufficient measure: more control of where a drug goes and what it does once it enters the human body.

The current decade has seen the School place increasing emphasis on nanotechnology, personalized medicine, and pharmacogenetics, overlapping approaches that could enhance a drug's efficacy while reducing its toxicity to healthy organs.

"We have good control before the patient ingests the drug," says Bruce Yu, PhD, an associate professor of phar-

maceutical sciences, citing the roles played by researchers, regulators, and pharmacists in getting a drug ready for clinical application. "But once the patient ingests the pills, we lose track and we don't know where it goes and how much. My view of nanotechnology is to gain some control over drugs inside the human body."

The new developments stem from the School of Pharmacy's well-earned reputation as a leader in the formulation of drugs in tablets, liquids, and aerosols, and in the discovery of new ways to maximize stability and bioavailability once a drug is taken. They also stem from the School's leadership in developing manufacturing guidelines later adopted by the Food and Drug Administration. Each era has seen new strides, but the present one offers treatments more finely tuned and targeted than ever before.

"Ten years ago, the big thing was controlled release, slowing down how the drug was absorbed," says Andrew Coop, PhD, professor and chair of the Department of Pharmaceutical Sciences. "Now, we're moving forward to change the drug so it's delivered only to one site in the body so you can target the tissue of interest."

Nanotechnology, as the name suggests, employs multitasking molecules measured on the nanoscale to serve as

platforms for drugs fighting cancer, infectious diseases, and other ills. The same platforms can carry imaging agents, antibodies or proteins matched to receptors on target cells.

At the School of Pharmacy, fighting cancer is receiving the greatest attention because the technology offers exciting answers to one of the big conundrums in cancer therapy: how to deliver tumor-fighting drugs without subjecting patients to wrenching side effects. One possibility is controlling the size of the drugs so they fit in some spaces but not in others; another is attaching drugs to compounds that selectively target a tumor.

On his computer screen, Anjan Nan, PhD, an assistant professor of pharmaceutical sciences, displays a polymer resembling a long wavy shoelace with several side chains carrying chemotherapy drugs.

In one approach under investigation, a polymer-drug conjugate would take advantage of the fact that the blood vessels that feed tumors tend to leak near the tumor, providing unusually large entry points for drugs. The conjugates themselves are too large to slide into the pores through which drugs normally pass but can pass easily into the leaks.

“Now, you have limited the flow of these polymers only to the tumor site,” says Nan, one of the School’s promising young scientists. “The small molecule drugs normally can diffuse anywhere. But if you have the same drug molecule attached to a big polymer, it’s not going to go to the kidneys or the liver but only to the tumor.

“We call them passive targeting polymers because they take advantage of that leakiness,” Nan says.

A second generation of polymers would actively seek out cells, as if equipped with homing devices. An active targeting polymer, he explains, could have five side chains carrying drugs but another five bound to antibodies or peptides matching receptors on tumors or macrophages.

The polymer’s shape has much to do with its capabilities. Researchers, for instance, are experimenting with nanotubes, tiny open cylinders made of silica that can carry more freight than polymers or spherical nanoparticles because of their large inner void. “They’re sort of like minibuses,” says Nan. “They have a lot of inner volume, and you can fill up the tube with any molecule you want, whether a protein, gene or small drug. These tubes can be injected into the body, and we can make them targetable to a particular site.”

One strategy is to decorate the outside of these nanotubes with a peptide, called RGD, that would bind to receptors on blood vessels that sprout from tumors. Like Trojan horses, the tubes could also contain anti-angiogenic drugs designed to starve the tumors or chemotherapy agents to poison them.

Yu is using nanotechnology to track a drug’s path once it is injected or ingested. The goal is to overcome the trial-and-error nature of cancer treatments, in which doctors never really know the appropriate dose until enough time has passed to observe the symptoms of toxicity.

“Not all patients can tolerate the trial and error for too long,” says Yu. “A substantial portion of patients are misdosed, overdosed or underdosed.”

One study, he said, estimated that approximately half of all cancer patients don’t initially receive an appropriate dose. Doctors currently base their dosing decisions on fairly crude indicators such as the patient’s body weight. But, said Yu, this doesn’t account for the fact that two otherwise similar patients could metabolize, absorb, and excrete drugs differently.

Yu’s answer is to label chemotherapeutic agents with probes such as fluorinated compounds that would allow doctors to track where they go soon after administration. Accordingly, a physician observing the drug’s path on an MRI could tell within a half-hour of a patient’s first dose whether the drug is reaching his or her tumor in sufficient quantities or healthy tissues in toxic amounts.



Anjan Nan



Albert Brzezczko

“Then, for the next round of therapy, I’d need to give a bit more or a bit less,” Yu says. “Hopefully, this would reduce the variability in therapeutic outcomes.”

Though hopeful about its potential, Yu said the technology is probably several years from

clinical application. Among other challenges, he is currently working to synthesize just the right fluorinated compound, one that won’t alter the drug’s biodistribution. “The fluorinated compounds tend to accumulate in the liver and the spleen, and if that happens, you defeat the purpose,” he says.

“We need to solve that problem, but we are making good progress.”

Equipped with the fruits of the Human Genome Project, School of Pharmacy scientists also are excited about the possibilities of pharmacogenetics—the tailoring of drugs and drug dosages to suit a person’s genetic makeup. It’s one aspect of personalized medicine, which Natalie D. Eddington, PhD ’89, dean of the School and a professor of pharmaceutical sciences, said is becoming one of the most important initiatives at the School. Genetic analysis of a patient’s tumor also could help doctors determine which genes have been mutated and select the right drug accordingly.

New approaches toward drug delivery reflect gains in cellular biology, molecular biology, and gene sequencing that have taken place in the last two decades, with many of the key advances occurring at a quickening pace in the last several years. Construction of the new seven-story Pharmacy Hall Addition will provide the School with expanded space and state-of-the-art tools to pursue both traditional and new paths to drug delivery. One lab, for instance, will house a small animal MRI for the real-time evaluation of drug targeting.

School of Pharmacy alumni working along more traditional lines seem to find the new directions intriguing, though they caution that it could be a while before some of the more targeted drugs enter patients’ medicine cabinets.

“It’s exciting, very cutting-edge,” says Albert Brzezczko, PhD ’90, vice president of global pharmacy research and development at International Specialty Products in Columbia, Md., who explains that the targeting of medicines to sites of action will take a good deal of the guesswork out of drug development and will bring even greater value to

existing therapeutics.

In the meantime, he said his company, which provides excipient technologies for pharmaceutical products, is forging ahead to improve bioavailability with “old school” approaches. In one, the company is producing amorphous solid dispersions (commingled drug and water soluble polymers) to serve as platforms for drugs that dissolve poorly by themselves—a union that can improve a drug’s delivery, including therapeutic onset.

When Larry Small, PhD ’80, MS ’76, attended the School of Pharmacy in the 1970s, the curriculum emphasized drug formulation, not drug discovery and clinical research. It was good preparation for a career in industry that has brought him to the level of senior vice president for product development at Wyeth Consumer Healthcare in Richmond, Va.

Small said he understands why schools are taking on the fields of nanotechnology and pharmacogenomics, noting that they hold great promise and offer research opportunities that attract the best students. He said they also offer opportunities for obtaining grants while providing outcomes that advance knowledge. Pharmacy schools “need to stay modern, competitive, and cutting-edge,” he says.

But once a drug is developed, “a formulator still has to develop it into a viable, stable commercial product that can be manufactured at scale and is useful for the patient taking the new medication or the doctor who is administering a shot,” Small says. “The formulator, as a career path, is still essential to bringing new drug therapies to the patient and to the consumer.”

Adds Eddington: “The School of Pharmacy has a long tradition of excellence in drug formulation, of taking medications and trying to find ways to enhance their bioavailability after oral administration. Now, we’re moving ahead while still keeping our rich history and keeping true to our traditions.”

Meanwhile, researchers at the School convey a palpable sense of excitement about what the future may bring.

“What’s going to happen six or seven years from now, I can’t predict,” says Yu. “One of the aspects of science I enjoy most is the unpredictability. You never know what you’ll see even a month from now. Something always will come up.” ☼



Larry Small



**Blomster on treks
to South America**

50 professors at the School and enrollment had increased to nearly 400 students across all four

Blomster Firmly Planted in Research

BY LYDIA LEVIS BLOCH

Growing up in New England, Ralph Blomster would carefully observe as his Scandinavian grandmother applied sticky spider webs to staunch cuts or press nettles into aching arthritic joints.

Some years later, armed with a PhD in pharmacognosy (the use of plants as a source for drugs), Blomster traveled through the jungles of Peru, Bolivia, and Brazil. He was in search of *curanderos*, traditional folk healers, asking which plants they used for what ailments, and then collecting those plant specimens.

Blomster's expeditions to South America were part of his successful career at the University of Maryland School of Pharmacy, one that has lasted more than 40 years.

During his first years as professor and chair of the former Department of Pharmacognosy (1968 to 1979), he and his graduate students worked on isolating chemicals that were active compounds in plants chosen by traditional folk healers to treat diseases. Eventually, they developed an anti-inflammatory compound and a wound-healing agent that were sold in Europe.

His second area of research involved growing plant cells, in fermentation studies, to produce compounds with medicinal activity. Blomster continued serving as chair of the renamed Department of Medicinal Chemistry/Pharmacognosy until 1989. During his tenure, he helped increase the number of faculty in the department and enhanced research, graduate education, and funding.

When he joined the School under Dean William J. Kinnard, PhD, in 1968, it had about 15 faculty members and an average annual class size of approximately 40 students. When Blomster retired in 1996, there were at least

years of the curriculum.

"Ralph continues to have a huge impact on the department and the School, promoting research and education," says Andrew Coop, PhD, professor and chair of the Department of Pharmaceutical Sciences, created in 1993 from the department led by Blomster. "He is committed to the education of students and willingly shares his knowledge."

Indeed, teaching is Blomster's passion. His enthusiasm and humor bubble through the lectures he continues to give in the pharmaceutical chemistry and herbalism courses. "I try to get the students to open their minds, to think globally. I really enjoy the students; they're a hoot," Blomster says smiling.

Says Coop: "Ralph's knowledge is even more important today because of the increased interest in pharmacognosy." Students in those courses study how natural products work, what noxious effects they might have, and any possible drug-drug interactions with prescription medications.

A professor emeritus, Blomster also has mentored young faculty members. "He's given us advice, shown us the ropes, and helped us succeed," says Alexander MacKerell, PhD, the School's Grollman-Glick Endowed Professor in the Pharmaceutical Sciences.

When he's not at the School, Blomster carves decoys, travels with his wife, Marilyn, and enjoys his grandchildren and great-grandchildren.

And as for natural compounds, he takes fish liver oil tablets to help control cholesterol, but prefers glucosamine and chondroitin to nettles for easing arthritis pain.

Ever the professor, Blomster adds that such compounds should be used with caution and a thorough understanding of their chemical and medical functions. ☼



Ralph Blomster

Bonaparte Still Answers the Call

BY LYDIA LEVIS BLOCH



Ann Bonaparte

Getting a call from far away is no big deal these days, but in the early 1980s it was unusual for the University of Maryland School of Pharmacy. A worried student in Hawaii called Ann Bonaparte in the Office of Student Affairs back then with an important request.

"Somehow the student knew my name and asked about admissions," recalls Bonaparte. "I'd never heard of her, and to this day, I still don't know how she found me. There certainly wasn't a School of Pharmacy Web site then."

Some time later, a foreign student visited the School for a round of interviews. In mid-afternoon, he appeared in Bonaparte's office, luggage in hand. Yes, he had been accepted, but there was a little problem.

He had no place to sleep and did not know anyone. Within a few hours, Bonaparte had set him up with an apartment, established his phone service, and put him in touch with other pharmacy students.

These are just two of the innumerable situations Bonaparte has handled in the last 27 years working in various positions in the Office of Student Affairs. If something is broken, she repairs it. If it's not broken, she improves it. Today, as office manager, she oversees a staff of four.

"Ann is somebody on whom everyone in the School of Pharmacy relies," says Jill Morgan, PharmD, associate dean of student affairs. "She's wonderful with the students. They understand she'll take care of them. She knows how the larger University operates, and if she doesn't have the answer, she'll know where to find it."

Bonaparte came to what was then the University's Hospital Data Center in 1979. She joined the School

of Pharmacy in 1981 as an administrative assistant for Dean Leavitt, PhD, associate dean for administration and professional services. "He was like a father figure to me," she remembers. "I wanted to do much more than typing and filing, and he was always flexible and encouraging."

Eventually, Bonaparte worked her way through the admissions, orientation, and registration processes, set up open houses and career fairs for students, and organized convocation and graduation.

"Just when you think you've got a process or program working smoothly, things change," she says. "Actually, you want them to change, to see what we can do better next time."

For example, Bonaparte's latest project is a one-on-one counseling initiative for first-year students to guide and support their academic needs. Considering the entering PharmD class boasts 160 students, the effort is ambitious.

Although she's had many job offers from other schools at the University of Maryland, Baltimore, word has gotten out that Bonaparte is fiercely loyal to the School of Pharmacy.

When she's not helping students, Bonaparte likes to dig in her flower garden, make dried flower arrangements, read, go to movies, and be with family.

But there's always her "other family"—the School of Pharmacy students, many of whom stay in touch with her after graduating. Bonaparte's computer screen is covered with photos of them and their children.

"I get to see the students as they come in and later at graduation," she says. "Along the way, I develop relationships with them. It gives me a lot of pleasure and satisfaction to see how they mature into young professionals." ☀

Laurels

Dongyi Du, a graduate student in the Department of Pharmaceutical Health Services Research, was selected from more than 1,000 applicants for the inaugural year of the Food and Drug Administration's Commissioner's Fellowship Program.

Mark Epstein, a fourth-year PharmD student, published "Eighth Annual Maryland Legislative Day: A 'Veteran's' Perspective" in the spring issue of *Pharmascript*, the newsletter of the Maryland Society of Health-System Pharmacists.

Jannet Hseih, a fourth-year PharmD student, has been named president of the University Student Government Association at the University of Maryland, Baltimore.

Runyan Jin, MD, and **Bart Rogers, PharmD '04**, graduate students in the Department of Pharmacy Practice and Science, were selected to present their research at the 2008 American College of Clinical Pharmacology meeting in Philadelphia.

Louis Jones, a fourth-year PharmD student, received the 2008 Outstanding Student Member Award from the National Community Pharmacists Association.

Kelly Martin, a third-year PharmD student, and **Seferina Kim-Walsh**, a fourth-year PharmD student, have been appointed as members-at-large to the American College of Clinical Pharmacy's StuNet advisory committee.

Marilyn Matthews, PharmD '05, a graduate student in the Department of Pharmaceutical Sciences, received the 2008 Graduate Student Symposium Award in Drug Design and Delivery from the American Association of Pharmaceutical Sciences.

Susan Montenegro, a third-year PharmD student, participated in the Junior Commissioned Officer Student Training and Extern Program with the U.S. Public Health Service Commissioned Corps.

Bart Rogers, PharmD '04, a graduate student in the Department of Pharmacy Practice and Science, received a predoctoral fellowship from the American Heart Association for his project on the pharmacogenomics of beta-adrenergic receptors in heart failure.

The **School of Pharmacy student chapter** of the American Society of Health-System Pharmacists (ASHP) was designated a Recognized Student Society by the ASHP for promoting membership in local, state, and national health system organizations; developing activities to stimulate interest in health system pharmacy careers; and completing one or more projects to encourage career and professional development.

Marwa Aboukhatwa, Wenchi Hsu, Seung Lee, Kevin Lv, Bart Rogers, PharmD '04, Keri Yang, and **Xiaowan Zheng** were named graduate student teaching fellows in the departments of Pharmaceutical Health Services Research and Pharmaceutical Sciences for the 2008-09 academic year.



Advocacy Trip to D.C.

Students from the School of Pharmacy's "Effective Leadership and Advocacy" elective course traveled to Capitol Hill in Washington, D.C., in October to put their newfound skills to the test. During the day, they met with legislative aides for many of Maryland's congressional representatives to discuss pharmacy-related issues such as the pharmacist's role in health care reform, reimbursement for medication therapy management services, and educational loan reimbursement for student pharmacists specializing in care for geriatric patients. They ended the day with an etiquette dinner with students from the School of Pharmacy at Virginia Commonwealth University, who receive the course's content via live videoconferencing. ☀

Welcome Class of 2012

First-year PharmD students from the Baltimore and Shady Grove campuses were introduced to the School of Pharmacy at a three-day orientation session in August. It included a welcome from Dean Natalie D. Eddington, PhD '89, and class advisor Myron Weiner, PhD '72, BSP '66, of pharmaceutical sciences, along with a curriculum overview, and tours of both campuses. New graduate students in the Department of Pharmaceutical Health Services Research and the Department of Pharmaceutical Sciences were welcomed at departmental orientation sessions. ☀



First-year students Keng Fonso (left) and Mingzohn Tsay with Dr. Weiner, advisor for the Class of 2012.



Members of the Class of 2012 pose in their white coats.

White Coat Ceremony

The Class of 2012 celebrated its entry into pharmacy education at the School's annual White Coat Ceremony on Sept. 5. Guest speaker Jeffrey Brewer, PharmD '98, a clinical specialist in primary care at Johns Hopkins Hospital's Department of Pharmacy, encouraged the new pharmacy students to maintain high ideals, to practice by a code of ethics, and to be professionally competent. After the ceremony, at which students recited the pharmacy Pledge of Professionalism, the students and their families enjoyed a reception sponsored by Rite Aid. ☀



Lisa Charneski, PharmD, assistant professor of pharmacy practice and science, helps student Sara Alizai on with her coat.



American Pharmacists Month

The School of Pharmacy's Student Government Association (SGA) arranged for a banner to be hung on the University's Health Sciences and Human Services Library in celebration of October as American Pharmacists Month. Students, faculty, and Dean Eddington posed for a commemorative photo. ☀

Pre-Exam Breakfast

Representatives from the Class of 2010 sold pancake and waffle breakfasts to their fellow students in October on exam mornings. Shown from left are chefs Erica Swanson, Xuan Tang, Leah Sera, and Jennifer Stevens. ☀





Fall Formal

The SGA hosted its annual Fall Formal on Sept. 30 at the 1840s Ballroom in Baltimore to welcome the incoming class of students. Approximately 200 attendees enjoyed dinner, dancing, and the opportunity to network with upperclassmen and faculty. ☼



Some attendees from the Class of 2012 were, from left, Lillian Chang, Grace Lan, Eric Oak, Peter Thai, Dan Lee, and En-Shih Wang.



Fall Picnic

Oct. 3 was a beautiful day for the SGA's annual Fall Picnic. Students, faculty, staff, and alumni gathered at Cedar Lane Park in Columbia, Md., to enjoy food, games, and other activities. The picnic was sponsored by CVS Caremark. ☼



Juliana Pak of the Class of 2011 paints a face.

Diabetic Halloween

The SGA, in conjunction with Operation Diabetes, a project of the American Pharmacists Association-Academy of Student Pharmacists, treated a group of Baltimore City third-graders to a few tricks and treats at its third annual Diabetic Halloween event in October. Thirty-five third-grade students from Belmont Elementary School in West Baltimore enjoyed face painting, puppet and slime making, and a haunted house. The students also received a tutorial on the different types of diabetes, the impact of untreated high blood sugar, and how to prevent the disease through diet and exercise. ☼

Phi Delta Chi Honor

In August, the School of Pharmacy's Iota chapter of the Phi Delta Chi professional fraternity was honored for being the chapter donating the most to St. Jude Children's Research Hospital. The chapter raised \$14,000 in the past year for the charity. Shown with the recognition plaque are chapter brothers, from left, Andrea Shaw, Class of 2011; Jackie Finocchio, Class of 2010; Katie Morneau, Class of 2011; and Katie Bales, Class of 2011. ☼





in memory of 'Doc' Lykos

BY LYDIA LEVIS BLOCH

Affectionately known as "Doc," Nicholas Lykos, BSP '59, ran the Lykos Pharmacy on York Road in Timonium from 1960 until 2001, when he died of heart failure at age 70.

Today, his pharmacy is still frequented by loyal customers; many are second- and third-generation clients. And the pharmacy's faithful, longtime staff works hard to sustain the high standards Lykos always set.

"Pharmacy was his passion," says his wife, Dorothy Lykos, who, for the last 43 years, has come to the pharmacy every day it has been open.

“Nick was deeply grateful to the University for the training and opportunities he received.”

—DOROTHY LYKOS

“No matter how tired he was, or even in his later years when he was sick, Nick loved his work and never once complained,” she says. In fact, on his way home from the hospital after surviving heart bypass surgery, Lykos insisted on walking into his beloved pharmacy “to see how things were going.”

“Doc always emphasized the highest ethics of pharmacy practice, the importance of direct contact with clients, and he offered top-of-the-line products and services,” says the pharmacy’s manager Charles “Chuck” Muendlein, BSP ’85. Muendlein began working with Lykos as a first-year student in 1983 and has stayed on ever since.

He isn’t the only alumnus to set foot there. Whenever possible, Lykos Pharmacy employs University of Maryland School of Pharmacy students.

The Lykos family recently established the Nicholas C. Lykos Scholarship in Community Pharmacy, demonstrating its pride in the School of Pharmacy. The scholarship, given to promote independent pharmacy, is supported by Lykos’ wife and their children, Cosmas and Angela. (All endowed scholarships represent a minimum \$25,000 gift.)

“Graduate-level scholarships are hard to find and are always appreciated by students,” says Jill Morgan, PharmD, associate dean for student affairs. “They allow students to spend more time on learning, participating in student organizational activities, and advancing the profession of pharmacy.”

“Nick was deeply grateful to the University for the training and opportunities he received,” says Dorothy Lykos. “He always tried to help pharmacy students and wanted to give back to the School.”

Nicholas Lykos, who was involved in the School of Pharmacy’s Alumni Association, was instrumental in helping to create the all-PharmD program. From 1992 to 1993, he

joined weekly meetings of a small group of faculty members whose task was to design the program.

“The only practicing pharmacist on the committee, Nick served as our link to the real world and strongly supported the forward-looking vision of a larger role for pharmacists in health care,” recalls former Dean David A. Knapp, PhD. “His contributions helped craft a program that propelled the School into the top 10 nationally.”

Besides his professional commitments, Lykos was devoted to the Greek Orthodox Cathedral of the Annunciation. He received the highest honor given to a layman, Archon to the Patriarch, and played an integral role in the cathedral’s humanitarian aid, adding pharmaceutical products to disaster relief packages.

For more information on establishing a scholarship fund, please contact Michele Ewing, executive director of external affairs, at 410-706-3816. ☺



Nick and Dorothy Lykos, with their children, Cosmas and Angela.

A Message from the Alumni President



Lynette Bradley-Baker

Forging ahead, your School of Pharmacy Alumni Association continues to increase our presence and commitment to this great institution.

During the past year, the Alumni Association officers and executive committee hosted the annual Gifts of Time Reception; participated in receptions at the National Community Pharmacists Association, American Association of Pharmaceutical Scientists, American Society of Health-System Pharmacists, and American Pharmacists

Association 2008 annual meetings; and took part in open houses and prospective student interviews. Our terrific year was highlighted by record-breaking attendance from the Class of 2008 and the Class of 1958 honorees, alumni, and friends at the annual Graduation Banquet.

During our summer planning meeting, the Alumni Association pledged to build upon the great foundation laid in 2008. We will continue to have student pharmacist representation on our executive committee. We will continue our commitment to assisting our School in the selection of future alumni. We will continue to host and participate in events that engage us with our alumni, our School, and our student pharmacists. We will continue to welcome alumni who wish to help us build upon our past successes.

Our association is working to further enhance our 2007-09 goals:

- fostering communication between the School of Pharmacy and its alumni
- providing social and educational networking opportunities for alumni and other pharmacy professionals
- fostering vital relationships among student pharmacists, faculty, and staff at both School of Pharmacy campuses

We welcome your participation as we move toward the fulfillment of these goals. As always, please continue to provide me with your feedback, comments, and suggestions. I can be reached at lbradley@rx.umaryland.edu.

Sincerely,

Lynette R. Bradley-Baker, PhD '99, BSP '92
President

2007 – 2009 ALUMNI ASSOCIATION

OFFICERS

Lynette Bradley-Baker, PhD '99, BSP '92
President

Doris Voigt, PharmD '04
President-Elect

Hoai An Truong, PharmD '05
Vice President

Capt. James Bresette, PharmD '97
Co-Treasurer

Cynthia Boyle, PharmD '96
Co-Treasurer

COMMITTEE CHAIRS

Brian Hose '06
Chair, Graduation Banquet

Wayne Dyke, BSP '68
Co-Chair, Reunion

Terry Gyi, PharmD '06, BSP '83
Co-Chair, Reunion

George Voxakis, PharmD '96, BSP '58
Chair, 50th Year Reunion

Joseph DeMinio, BSP '84
Past-President

David A. Knapp, PhD
Honorary President

2008 APhA Conference in San Diego



Alison Davitt, director of major gifts; Sally Van Doren, PharmD '85; Joseph Fannella, BSP '73; Karen Nishi, BSP '80; Dean Natalie D. Eddington, PhD '89; and Michele Ewing, executive director of development and alumni affairs, gather for dinner following the School of Pharmacy reception.



Matt Shimoda, PharmD '84; Howard Schiff, BSP '56, executive director of the Maryland Pharmacists Association (MPhA); his wife, Barbara; and then-MPhA chairwoman Ginger Apyar, PD, BSP, pose for a photo at the School of Pharmacy reception.



School of Pharmacy Board of Visitor members David Miller, BSP '85; Sally Van Doren, PharmD '85; and former board chairman Richard Penna, PharmD, join Dean Eddington, PhD '89.

American Society of Health-System Pharmacists Alumni and Friends Reception in Las Vegas in December 2007

Co-sponsored by the School of Pharmacy and Maryland Society of Health-System Pharmacists



Adam Bress, Class of '09, with his dad, Barry Bress, BSP '79



Jeffrey Brewer, PharmD '98, and Lisa French, PharmD '07, catch up on the latest news from the School.



From left: Joseph LaRoche, PharmD '06; Kristin Rapan, PharmD '05; Professor Magaly Rodriguez de Bittner, PharmD '83; and Taher Sheybani, PharmD '84



From left: Bryan Hayes, PharmD, of the Department of Pharmacy Practice and Science (PPS); Heather Hurley; Brian Grover, PharmD '03; Carla Williams; and PPS' Melissa Badowski, PharmD

Due to a printer's error, the photo packages on this page and the next were inadvertently left out of the Summer 2008 Capsule.

Graduation Banquet

On May 14, 2008, the Alumni Association held its annual Graduation Banquet honoring the classes of 2008 and 1958. Thanks to the many corporate sponsors, it was a spectacular evening celebrating the newest practitioners and the achievements of our legacy alumni. ☀



Women from the Class of 2008 pause from demonstrating their dancing skill for a celebratory hug commemorating this special evening.



Catherine Chew, PharmD '99, presented the 2008 U.S. Public Health Service Excellence in Public Health Pharmacy Practice Award to Mavis Mbi, PharmD '08, (left) for her demonstrated leadership and commitment to public health and pharmacy practice.



Smiles abound from Class of 2008 officers (from left) Yndiana Tineo, Sejal Patel, and Carla Gonzalez (far right), with classmate Julie Hahn.



Conrad Dorn, PhD '63, MS '61, BSP '58, and his wife, Clarice, are happy they made the trip from New Jersey to reconnect with former classmates and friends.



From left: 1958 classmates George Voxakis, PharmD '96, BSP; David Oken, BSP; and Michael Rodell, PhD, BSP, share a laugh as they recount their glory days of pharmacy school.



From Florida to New York, members of the Class of 1958 came out to celebrate the 50th anniversary of their graduation from the School of Pharmacy.



Busy graduates and their families are all smiles as they enjoy the opportunity to relax at the start of the evening.



It's a great night to mark friendships that started in pharmacy school. From left, 2008 graduates Jagjit Dhaliwal, Scott Wern, Matt Casciano, Ndubisi Ndukwe, and John Lee savor the moment.

Gifts of Time Reception

Capt. James Bresette, PharmD '97, and Joseph DeMino, BSP '84, were recognized as 2008 Evander Frank Kelly Honored Alumnus Award recipients, along with Cecil County Delegate David Rudolph, recipient of the B. Olive Cole Honorary Alumnus Award, during the Gifts of Time Reception that was held in the Gladhill Board Room in October.

Preceptor of the Year Award recipients Carol Stevenson, PharmD '02; Frank Pucino, PharmD, BCPS; Jeffrey Cywinski, BSP; and Jennifer Thompson, PharmD, were also recognized at the event. ☺



Shown from left are Jennifer Thompson, PharmD, APPE Institutional New Preceptor of the Year; Cynthia Boyle, PharmD '96, director of the School of Pharmacy Experiential Learning Program; Carol Stevenson, PharmD '02, IPPE Preceptor of the Year; and Dean Natalie D. Eddington, PhD '89.



The DeMino family:
Anita and Joe with their
daughter, Anna



Celeste and Capt. James Bresette



Alumni Association President Lynette Bradley-Baker, PhD '99, BSP '92, congratulates Delegate David Rudolph on his award.

Awards Named After Alumni

In September 2008, the School of Pharmacy Alumni Association Executive Board voted to name the Honored and Honorary Alumni Awards in recognition of two very special and distinguished alumni.

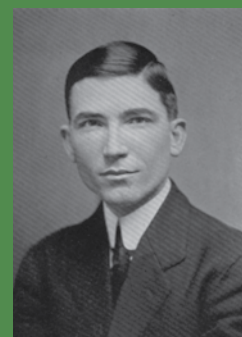
The Honored Alumnus Award was named for Evander Frank Kelly, who graduated from the School of Pharmacy with a Doctor of Pharmacy degree (PharD) in 1902. After serving as an assistant professor and professor, Dr. Kelly was appointed dean in 1918. In addition to his service and dedication to the School, Dr. Kelly served many years as the secretary of the American Pharmaceutical Association and was awarded the Remington medal, the profession's highest award.

The Honorary Alumnus Award was named for B. Olive Cole, who is known as the "First Lady of Maryland Pharmacy." Dr. Cole was an alumna of the School and received her PharD in 1913. She is believed to be the first woman to hold a full professorship at any school of pharmacy in the United States, having attained that distinction at the University of Maryland School of Pharmacy in 1948. From 1948 to 1949, she served as acting dean of the School.

To nominate someone for these awards, please visit the School of Pharmacy's alumni Web site at www.pharmacy.umaryland.edu/alumni. ☺



B. Olive Cole



Evander Frank Kelly



Alumni and friends of the School join Dean Natalie D. Eddington, PhD '89, and Andrew Coop, PhD, chair of the Department of Pharmaceutical Sciences (PSC), for dinner following the University of Maryland School of Pharmacy Reception at the 2008 annual meeting of the American Association of Pharmaceutical Scientists (AAPS) in Atlanta in November. Back row: Bipin Mistry, PhD '99; Maria Brzezczko; Albert Brzezczko, PhD '90; Atul Mehta, PhD '81, MS '75; Bob Pinco, BSP, JD, of the School of Pharmacy Board of Visitors; Dolly Blake; David Blake, BSP '63, PhD '66, of the Board of Visitors; Shailaja Somaraju, PhD '00; Robert Giannini Jr., PhD '81. Front row: Asha Mehta, Dean Eddington, and Dr. Coop.

AAPS Reception



Dean Eddington and Dr. Coop (far left) pose with PSC graduate student award winners at the University of Maryland School of Pharmacy AAPS reception. They are from left: Vikas Moolchandani, Vivek Dave, Marilyn Tsourounis, Han-Pin Lim, and Lei Diao.

NCPA Alumni and Friends Reception

The Hyatt hotel in Tampa, Fla., served as the perfect venue for alumni and friends to gather, celebrate, and catch up during the 2008 National Community Pharmacists Association Convention in October. ☀



David Fulton Jr., BSP '81, and Stephen Wiener, BSP '91



Shown from left are Sally and Gary Haas, RPh, of Boonsboro Pharmacy, with Terry Wills, PharmD '00.

Reunion 2008

The milestone classes of 1958, 1963, 1968, 1973, 1978, 1983, 1988, 1993, 1998, 2003, and 2008 celebrated at the Rusty Scupper in October. ☀



Reunion chairs Wayne Dyke, BSP '68 (top row) and Terry Gyi, PharmD '06, BSP '83 (second row, right) join committee members Kellie Stonesifer, PharmD '98 (middle row, left), Abigail Strawberry, BSP '93 (bottom row, left), and Jung Lee, BSP '93.



Reveling in the reunion are Brian Martin, PharmD '98, and Class of 1983 members Barbara and Ronald Kessler, Charise Kasser, and Gayle Caldwell.



Shown from left are Sue Long Schnapp, BSP '78, with her husband, Skip, and Mary Louise Pizak-Gierula, BSP '78, with her husband, Jim.



Bob and Susan Katz, BSP '88



Class of 1993 members Shelby Olgivie-Reed, Marni Levenson-DeLorenzo, and Doty Mallette-Roye



William Foley Jr., BSP '58, and his wife, Carolyn, enjoy the celebration with Carolyn Petralia, PharmD '03, and her dad, Anthony Petralia Sr., BSP '52.



Debbie and William Salvatore, BSP '73



Shown from left are members of the Class of 1978 Melissa Christensen, Debra Bryan-Fetzer, Barbara Davis, and Trudy Merl.



Shown from left are alumni from the Class of 1978 James Easom, Mark Fletcher with his wife, Nancy, and Marianne (Pariseau) LeSage, BSP '79, with her husband, Russell.



Tamara Clay-Howard, Faith Braznell, and Dana Harris were among the Class of 1988 members in attendance.



2008 ASHP Midyear Meeting

Alumni, faculty, students, and friends set aside time to reconnect at a School of Pharmacy reception held during the 43rd American Society of Health-System Pharmacists Midyear Clinical Meeting and Exhibition in December in Orlando, Fla.



From left: Bruce Gordon, PharmD '82, BSP '79; Moe Delcher, BSP '69; and David Moore, a former member of the School of Pharmacy faculty.

Members of the Class of 2008 reunite for the first time since graduation in May.



Founders Week Gala

A festive group of alumni and friends enjoyed the University of Maryland, Baltimore's 2008 Founders Week Gala. Front row (left to right): William Chapman; Ellen Yankellow, PharmD '96; Judy Mintz and Marty Mintz, BSP '65. Back row: Sally Van Doren (second from right), PharmD '85; her parents, Charles and Betty Nuessle; and Amy Houtchens, Class of 2010. ☀

CLASS ACTION NOTICE

KARYN S. BERGMANN, *et al.*,
Plaintiff Class Representatives,
Plaintiff Class Members,

v.

UNIVERSITY SYSTEM OF MARYLAND, *et al.*
Defendants.

IN THE CIRCUIT COURT OF MARYLAND FOR BALTIMORE CITY

Civil Case No. 24-C-02-005740

AN IMPORTANT NOTICE FROM THE CIRCUIT COURT OF MARYLAND FOR BALTIMORE CITY ABOUT A CLASS ACTION INVOLVING A TUITION REFUND THAT YOU MAY BE ELIGIBLE TO RECEIVE

A class action has been certified by the Circuit Court of Maryland for Baltimore City and steps have been taken by the parties to notify all class members of their rights and involvement in the case. The class action seeks partial tuition refunds for students charged out-of-state tuition after applying for in-state tuition at any one of the following University System of Maryland ("USM") schools: (1) University of Maryland, Baltimore; (2) University of Maryland, Baltimore County; (3) University of Maryland, College Park; (4) University of Maryland, Eastern Shore; (5) University of Maryland, University College; (6) Bowie State University; (7) Coppin State University; (8) Frostburg State University; (9) Salisbury State University; (10) Towson University; and (11) University of Baltimore. Students who qualify as members of the class include those who: (1) petitioned any USM school for re-classification from out-of-state status to in-state status for **any semester from the Spring 2001 to the present**, and (2) were denied in-state tuition status based upon a failure to overcome the "financial dependence" or "residence at application" presumptions of the relevant USM policies, but otherwise met the requirements of the policy and the school's procedures for obtaining in-state tuition status, including exhaustion of the institution's administrative process. Class members are entitled to have the original decision to charge out-of-state tuition reconsidered by the institution, based upon revised standards for determining how these presumptions should apply (Those standards may be found at www.usmd.edu/regents/bylaws/SectionVIII/VIII270). Depending upon the results of that review, you may be eligible for a refund in the amount of the difference between the out-of-state tuition that you paid and the in-state tuition rate applicable at that time.

If you believe you are a member of the class but have not received a personal notice and wish to be part of the class, you should immediately contact the class plaintiffs' attorney Anthony M. Conti at Conti Fenn & Lawrence LLC, 36 South Charles Street, Suite 2501, Baltimore, Maryland 21201, to learn more about your possible rights in this matter, as you may be entitled to a tuition refund.

To learn more about your possible rights and to make a request to be considered as a member of the class, please contact Anthony M. Conti, Conti Fenn & Lawrence LLC, by calling 410-837-6999 or by e-mailing info@lawcfl.com. All e-mails should include the following information: full name, day and evening telephone number(s), current mailing address, name of constituent institution attended, and the years applied for and denied in-state tuition.

Judge M. Brooke Murdock

Class Notes

1950

Donald Fedder, DrPH '83, MPH '77, BSP, has announced that he will retire in June 2009. Dr. Fedder's long list of career achievements includes his early years in community practice with Inverness, president of the Baltimore Metropolitan Pharmacists Association, the Maryland Pharmacists Association, the Academy of Pharmacy Practice, trustee of the American Pharmacists Association (APhA), and chairman of the APhA board. He has served as a professor with the School of Pharmacy for 35 years. We look forward to celebrating his many outstanding achievements during the next year.

1975

Angela Kaitis, PharmD '06, BSP, has been promoted from assistant director of pharmacy services at Harford Memorial Hospital in Havre de Grace, Md., to administrative director of pharmacy services at the Upper Chesapeake Medical Center in Bel Air, Md.

1989

Scott Streator, BSP, has been named chief executive officer and executive director of Ohio State University's Managed Health Care Systems Inc., the administrator of the university's employee health plans. He is responsible for the administration, business development, and benefit architecture of the \$1 billion annual health care program serving Ohio's public employee retirees and beneficiaries. Scott currently resides in Dublin, Ohio, with his wife, Lynette, and their four children.

1993

Calvin Knowlton, PhD, founder and current president of ExecJetUSA, has been elected to the Board of Trustees of the Visiting Nurse Association of Greater Philadelphia, a nonprofit organization whose mission is to provide comprehensive, home-based, health care services of the highest quality to all people regardless of their ability to pay.

1996

Congratulations to **Heather Owens, PharmD**, and Tim Nizer (below) on their recent nuptials. The couple exchanged vows on Oct. 11 at a ceremony on the pitcher's mound of Ripken Stadium in Aberdeen, Md. Heather is a clinical pharmacist with Bravo Health.



Sabrina Raybon-Woodrum, PharmD, and her husband, Lloyd, welcomed their first child, a daughter, Daphne Georgia, on May 2. Sabrina also celebrated five years with Christ Hospital in Cincinnati. In addition, she is an active local volunteer for RESOLVE, a national infertility awareness organization. The couple celebrated their fifth wedding anniversary on Oct. 11.

1998

Kimberly Couch, PharmD, recently was advanced to the status of fellow of the Infectious Diseases Society of America.

Lisa Pitt, PharmD, is serving as associate director of MedImmune, located in Gaithersburg, Md.

Andrea Seitzman-Siegel, PharmD, is clinical coordinator of a community hospital in Florida, where she resides with her husband, Marc, and their 2-year-old son, Benjamin.

David Yoder, PharmD, has been named executive director of pharmacy for the BlueCross BlueShield Association in Washington, D.C. He is responsible for managing pharmacy benefits for 4.8 million federal employees.

2000

Sujin "Esther" Lim-Chang, PharmD, was promoted in July to assistant director of the Columbia University Medical Center Research Pharmacy.

We want to know what's happening with you!

Please send us information about your personal and professional life. Have you changed jobs, had a recent promotion, received an honor or appointment? Did you recently get married or celebrate the birth of a child? Do you have an interesting hobby or participate in community service projects?

Please let us know by completing the School of Pharmacy's online class notes form at www.pharmacy.umaryland.edu/alumni.

Some things are not too good to be true!

Benefit now with an immediate charitable gift annuity.

A gift of cash or appreciated securities to support the School of Pharmacy can pay you a fixed income for life, make you eligible for a current income tax deduction, and secure other favorable tax benefits.

Or benefit later with a deferred charitable gift annuity.

You can also choose to defer your payment until a later date. Your annuity payment and your tax deduction will be bigger, and you have the flexibility to select a start date that fits your retirement needs.

SAMPLE RATE CHART FOR A \$10,000 GIFT ANNUITY ON A SINGLE LIFE

Annuitant Age at Gift	Age 65	Age 70	Age 75	Age 80	Age 85
Annuity Rate	5.7%	6.1%	6.7%	7.6%	8.9%
Charitable Deduction*	\$3,455	\$3,988	\$4,484	\$4,961	\$5,409
Annual Payment	\$570	\$610	\$670	\$760	\$890

*Deduction will vary slightly with changes in the IRS Discount Rate. Assumed rate 4.2%

PLEASE NOTE: These examples are for illustrative purposes only and are not intended as legal or tax advice. Consult your own legal and tax advisors prior to making any material decisions based on this data. Charitable gift annuities are not available in all states.

For more information, please call:

Thomas F. Hofstetter, JD, LLM

Senior Director of Planned Giving

University of Maryland, Baltimore

1-877-706-4406 | thofs001@umaryland.edu

www.umaryland.edu/plannedgiving

In Memoriam

This section is dedicated to School of Pharmacy alumni who passed away between June 2, 2008, and Nov. 7, 2008. As the Maryland pharmacy profession is a close-knit community, we are honored to share the names of recently deceased alumni who have in some way impacted the profession and practice of pharmacy.

Bernard Anoff, BSP '57

Benjamin Cohen, BSP '44

Mary A. Coleman, BSP '46

Terry Crovo, BSP '80

Harry Custis Jr., BSP '51

Stanley Felsenberg, BSP '54, MD

Bradley Harrell, PharmD '98

Meyer Kramer, BSP '48

A. G. Leatherman, BSP '44

Ellis Levi, BSP '59

Milton Reisch, BSP '42, MD

Henry Schwartz, BSP '50

Ramon Sienkielewski Sr., BSP '69

Susanne Ellen Smith, BSP '69

Louis Troja Jr., PHG '33

Constance Webster, PharmD '85, BSP '83

Carlton Wich, PHG '26

If you would like to make a memorial gift, please use the enclosed envelope or call 410-706-5893.



LEGACY NOTE:

If a family member is applying for admission to the School of Pharmacy, tell them to check the “Legacy Box” on their completed application to secure their slot for an interview. All identified legacy family members are guaranteed and granted this opportunity!

Interested in maximizing your gift to the School of Pharmacy in your retirement plans? Want to know more about scholarship matching opportunities or how establishing an annuity can benefit you and your alma mater? Contact the Office of External Affairs in the School of Pharmacy for more information at 410-706-5893.

Alumni and Friends Make the Difference

Dear Alumni and Friends:

As the only school of pharmacy in the state for 167 years, the University of Maryland School of Pharmacy has long been fortunate to enjoy the support and involvement of you—our alumni and friends. Thanks to your sustained investment in the daily activities that enhance the experience of our students and, ultimately, the profession, your School of Pharmacy continues to be a leader in pharmacy education, preeminent in practice, and innovative in research.

Expressing appreciation of others is a simple concept, but is often difficult to do. For the School of Pharmacy, showing appreciation for those who have contributed to our success is a priority and something we strive to do on a regular basis. In each issue of *Capsule*, we make every effort to highlight individuals and groups who have brought the School to where it is now and who have helped ensure its future success. Some of them include:

- The families and friends who have invested in the Making an Impact Worldwide Campaign, contributing more than \$11 million to our comprehensive effort; including the 90-plus David Stewart Associate members who annually contribute \$1,000 or more to the School of Pharmacy.
- The families and friends who contribute to the Annual Fund every year. We are proud that the number of donors who make gifts year after year continues to grow. As state support continues to decline to less than 20 percent per year, now more than ever, annual support and consecutive year participation is critical to maintain our traditional standards of excellence.
- The 521 preceptors who generously share their professional time and knowledge to educate our 560 students during their IPPE and APPE rotations. To respond to the changing curriculum and national standards for experiential learning, the School of Pharmacy must continue to expand its number of precepting sites, thus every preceptor makes a difference and impacts our ability to educate the pharmacy leaders of tomorrow.
- The generations of families who have invested in the University of Maryland School of Pharmacy for their pharmacy education. This is a point of pride for our School and our campus. As such, we are searching for the most prolific pharmacy legacy family. So, if you are part of a Maryland pharmacy legacy family or have several family members (by marriage included) who have received a degree from the School of Pharmacy, we want to hear from you. Please visit www.pharmacy.umaryland.edu/alumni/ to share your news and family history.

Thank you for Making an Impact Worldwide on pharmacy education!

Regards,

A handwritten signature in black ink that reads "Michele Y. Ewing". The signature is fluid and cursive, with a large, stylized 'M' and 'E'.

Michele Y. Ewing
Executive Director
Development and Alumni Affairs



UNIVERSITY OF MARYLAND
SCHOOL OF PHARMACY

20 N. Pine Street
Baltimore, MD 21201-1180

Nonprofit Organization
U.S. Postage

PAID

Permit No. 4695
Baltimore, Maryland

**Save
the
Date!**

**2009 Alumni Association
Graduate Banquet
and
50-Year Reunion Class of 1959**

**Wednesday, May 13, 2009
7 p.m. to midnight**

**Martin's Valley Mansion
594 Cranbrook Road
Hunt Valley, Md. 21030**

**Visit www.pharmacy.umaryland.edu
for more information.**

**To place your congratulatory message in
the banquet program, call 410-706-8019,
or visit the alumni Web site at
www.pharmacy.umaryland.edu/alumni.**