

Advancing the Science and Practice of Healthcare



ANNUAL REPORT 2010 - 11



Message from the Dean

Review and Planning Create Strategic Opportunities

Academic year 2010-2011 was a period of great planning. The school was immersed in review and planning for our Fall 2011 ACPE Accreditation as well as planning celebration activities for the school's 125th anniversary. These planning opportunities allowed us to reflect on our rich history, coupled with our academic and scholarly expertise, and then take this information to plan for a future filled with innovation, understanding and creativity. This out-of-the-box type thinking and approach is what has kept our school at the forefront of teaching and scholarship for the past 125 years and will keep the school well positioned for our vibrant future.

Our faculty have continued their success in securing outside support and is evidenced by continued strong funding for the Center for Protein Therapeutics, significant NIH funding for research programs and training programs for students and post-doctoral fellows. Our pharmacy residencies and fellowships continue to grow in numbers of trainees as well as diversity of programs. Recognition of faculty accomplishments is further evidenced by their receipt of such prestigious awards such as: William Jusko, recipient of the Leadership Award from the American Society of Pharmacometrics; Sathy Balu-Iyer, recipient of the 2011 University at Buffalo Exceptional Teacher of the Year Award; and Leung Fung, recipient of the 2011 Distinguished Service Award from the American Association of Pharmaceutical Scientists. These and many other faculty members are commended for their leadership in advancing their disciplines and the school in positive directions.

Our students have been equally successful. Our American Pharmacists Association Academy of Student Pharmacists organization have been incredibly active in their community outreach activities, spearheading such activities as Operation Heart, Operation Diabetes and Operation Immunization. APhA-ASP's leadership members have received many nationally recognized awards as well as sit on many national committees. Students have been active in presenting at national meetings as well as publishing in peer reviewed journals. We are very proud of all they accomplish and appreciate the strength they bring to the school.

This year was filled with much review and planning, but what is evident from these important activities is the integrity and dedication of all members of the University at Buffalo School of Pharmacy and Pharmaceutical Sciences. This synergist group of individuals allows the school to continue to lead and excel and positions us well to meet all our future opportunities.

Warm regards,



Wayne K. Anderson

Professor and Dean

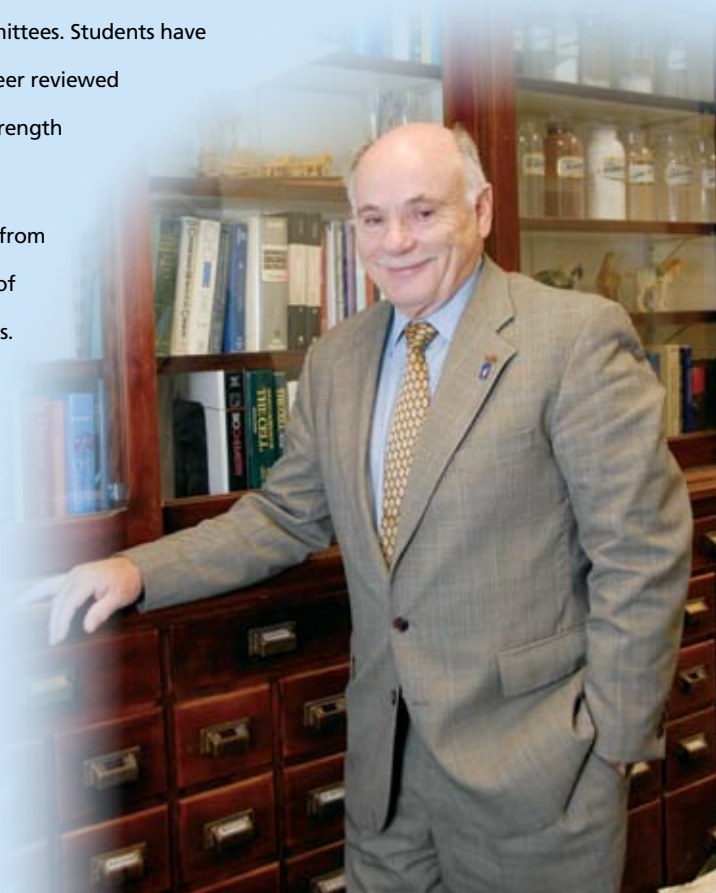
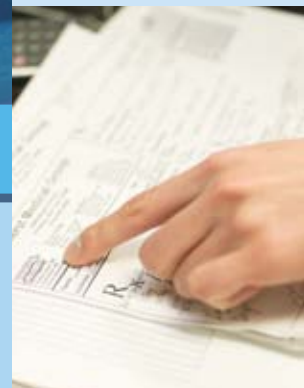




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OUR MISSION STATEMENT

The mission of the University at Buffalo School of Pharmacy and Pharmaceutical Sciences is to educate students in pharmacy practice and the pharmaceutical sciences, to create and disseminate knowledge in pharmacy practice and the pharmaceutical sciences and to provide services to the community at large based upon this knowledge. The mission is to provide a focus on patient-centered care and recognize pharmacist-delivered patient care as a mode of pharmacy practice within the health care team in which the patient is empowered to achieve the desired outcomes of drug and related therapy. This mission is to be achieved consistent with the highest ethical standards and a focus on diversity and cultural sensitivity. The mission also recognizes that research in the broad area of the clinical and basic pharmaceutical sciences is necessary to create and maintain a body of knowledge needed for professional education, health care delivery and the advancement of science. In this context, our goal is to enhance the local, national and international leadership of the School of Pharmacy and Pharmaceutical Sciences and continue it as one of the strong components of the University at Buffalo and the State University of New York system. This will involve a focus on those areas of unique strength within the school and those areas that form innovative, interdisciplinary bridges within the university.



At bench, Balu-Iyer was named Inventor of the Year by the Niagara Frontier Intellectual Property Law Association for novel work in the area of lipid-mediated protein therapeutics.



Bench to Bedside, Bedside to Bench

Evaluating how the body processes and reacts to drug therapies

At bedside, on the bench and in the classroom, two University at Buffalo School of Pharmacy and Pharmaceutical Sciences faculty members are going boldly where none in the field have gone before. And while pharmacy professionals are traditionally not hailed as popular heroes, the innovations of Sathy Balu-Iyer, PhD in pharmaceutical science, and William Prescott, PharmD in pharmacy practice, have made them “cape-worthy” contenders for the title.

Both received prestigious recognition last year for novel instructional technique – with curricular teaching applications that are at once similar and separate, and designed to engage a new age of learners.

“The students we are training today are of a different generation and therefore should be taught differently than we taught students 10 years ago,” says Clinical Assistant Professor Prescott, who was named 2011 SoPPS Teacher of the Year.

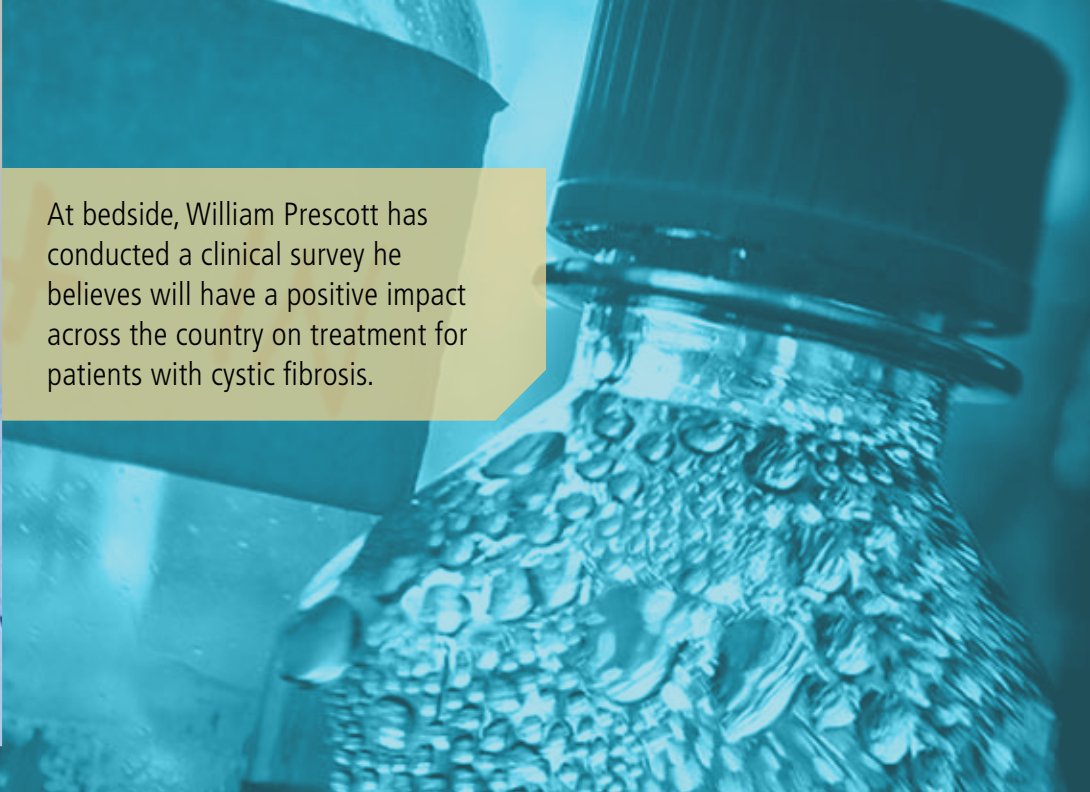
Associate Professor Iyer received the 2011 UB Award for Teaching Innovation. He also was named Inventor of the Year by the Niagara Frontier Intellectual Property Law Association for novel work in the area of lipid-mediated protein therapeutics.

“My research led to a series of technologies and one of them is to load proteins into dispersed systems,” he says of the intellectual property patented through UB and research funded by the National Institutes of Health and National Heart, Lung and Blood Institute (NHLBI). “In the Life Sciences category, the reviewers felt my discovery would make the greatest impact on society.”

A biophysicist, Iyer earned his doctoral degree in molecular



At bedside, William Prescott has conducted a clinical survey he believes will have a positive impact across the country on treatment for patients with cystic fibrosis.



“MY RESEARCH LED TO A SERIES OF TECHNOLOGIES AND ONE OF THEM IS TO LOAD PROTEINS INTO DISPERSED SYSTEMS,” Iyer says of the intellectual property patented through UB and research funded by the National Institutes of Health and National Heart, Lung and Blood Institute (NHLBI). “In the Life Sciences category, the reviewers felt my discovery would make the greatest impact on society.”

biology from the India Institute of Science in Bangalore, India. He came to UB in early 1993 to pursue a post-doctoral fellowship with UB SoPPS Professor of Pharmaceutical Sciences Robert Straubinger, PhD, who is the director of UB Pharmaceutical Sciences Instrumentation Facility.

“My post-doc training was on drug delivery approaches for cancer therapy using taxol,” says Iyer, who is assistant director of the Pharmaceutical Sciences Instrumentation Facility. Taxol is a small molecule drug used in the treatment of ovarian cancer. “Our aim was to load it into liposomes to reduce the toxicity of the drug. We did a lot of biophysical and animal studies.”

After his post-doc training, Iyer shifted his research focus from small molecule drugs to biotechnology, which led to his novel work with lipidic nanotechnology. “My interest now is in protein therapeutics,” he explains. “Currently, one of the major clinical complications of protein therapeutics is the development of an antibody response.”

This autoimmune reaction occurs when the body recognizes any part of a protein drug, which is biological in origin, as foreign and rejects it. Since 2002, Iyer has been working at the laboratory bench to meet this critical challenge to

optimization of a new era of pharmacy therapeutics. His work has generated knowledge about lipid-mediated drug delivery that will improve the medical treatment of hemophilia and other genetic blood disorders; and help to develop effective vaccines against cancer tumors.

The ongoing research takes a three-pronged, interdisciplinary approach focused on bioengineering, immunology and pharmacokinetics/ pharmacodynamics (PK / PD), and began with Factor VIII. The important recombinant coagulation protein is the first line of treatment for hemophilia, but has a high rate of immunologic rejection.

“We loaded these therapeutic proteins into a lipidic nanoparticle to deliver the drug,” Iyer says, explaining that the lipids can be “opened” for loading using solvents, controlled temperature and other methodologies. “With experimentation in hemophilic mice we discovered that this process allows the Factor VIII to stay in the system longer and reduce the immune resistant response.

“Using a recombinant lipid-epitope complex for drug delivery creates a less immunogenic response,” he continues. “It shields the protein, and then an immune response doesn’t occur.”

Bench to Bedside, Bedside to Bench

Evaluating how the body processes and reacts to drug therapies

PRESCOTT'S INSTRUCTIONAL STYLE also acknowledges the influence that personal technology has on student learning: ... "We need to be aware that our students are using these devices in class and that this has the potential to impair their ability to pay attention and learn what we are teaching them."

If a patient develops an antibody response to a protein drug, the cost of bypass therapy can go up to a million dollars a year, and is accessible to only a few patients. "With this approach, therapy will be a lot less expensive," Iyer explains.

The Erie County Medical Center, Women and Children's Hospital and the Western New York Hemophilia Foundation are collaborators in Iyer's Factor VIII research, and are anticipated to lead clinical trials in the future. UB also is cultivating private investors in the interest of launching a biotech company that would spearhead clinical trials.

In addition to the bench work with Factor VIII, Iyer is conducting research in concert with Duke University on the application of lipidic nanotechnology to lysosomal storage diseases such as Pompe, a rare blood disorder. His recognition as Inventor of the Year is linked also to lipidic nanotechnology research in collaboration with the UB School of Medicine and Roswell Park Cancer Institute, on immuno therapy IL-12 and development of a tumor vaccine mediated by dendritic cells.

Dendritic cells are part of the mammalian immune system. Their main function is to process and present antigens to other cells of the immune system. Iyer's research has found that in some instances the dendritic cell will recognize the IL-12 protein as foreign, but the loaded lipidic nanoparticle teaches the dendritic cell not to create an antigen response.

"Lipidic nanotechnology to induce tolerance has never been used before," Iyer concedes modestly. "This is the first time we are doing that."

At bedside, Prescott has conducted a clinical survey he believes will have a positive impact across the country on treatment for patients with cystic fibrosis. His clinical survey studying the use of extended-interval aminoglycoside dosing for cystic fibrosis pulmonary exacerbations was carried out in cooperation with the Cystic Fibrosis Foundation, which distributed it to its chapters across the country.

Cystic fibrosis is an inherited chronic disease that affects the lungs and digestive system of about 30,000 children and adults in the United States. Aminoglycosides are a class of antibiotics commonly used to treat the infectious aspects of cystic fibrosis pulmonary exacerbations.

"We can learn a lot about how to best treat patients with cystic fibrosis by understanding what other practitioners around the country are doing," Prescott says.

Aminoglycosides have traditionally been dosed three times daily. But the findings of Prescott's survey suggest that these antibiotics are now more commonly dosed by administering the entire daily dose at one time.

"This paper, which is in press, will help cystic fibrosis centers across the country compare and contrast their practices to what others are doing."

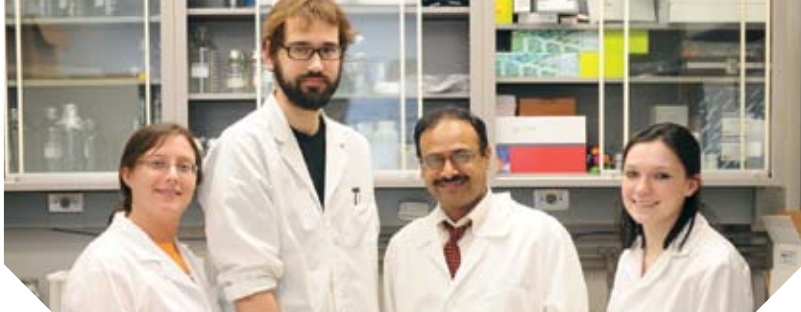
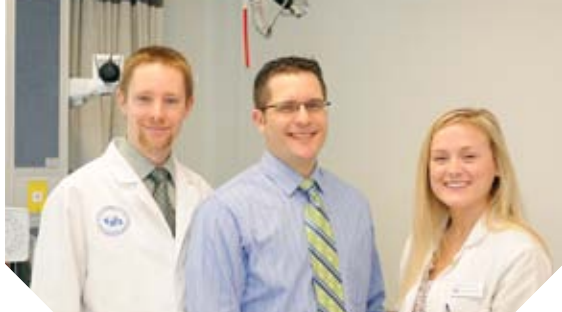
A native of North Tonawanda, Prescott earned his PharmD degree from UB and completed two years of residency training at the University of Michigan.

"The first year of my residency was in pharmacy practice and the second year specialized in pediatrics," he says. "I was given opportunities to not only improve my clinical skills, but to gain experience in teaching and research, all of which prepared me for the faculty position I am in today."

He joined the UB Pharmacy Practice faculty in 2004, and currently teaches and coordinates the patient assessment course, pediatric sections of the pharmacotherapeutics sequence, and the leadership in pharmacy elective. During his tenure, he also has contributed instruction to many other courses, including advanced pharmacotherapeutics, pharmaceutical care, applied PK/PD, over-the-counter medications, orientation to pharmaceutical fields and apothecarial adventures.

"Within the pediatric acute care setting at the Women and Children's Hospital of Buffalo, I have served as preceptor to approximately 75 fourth year pharmacy students during their advanced pharmacy practice experience, and since the initiation of the introductory pharmacy practice experience at our school in 2007, to approximately 40 students in their first, second and third professional years," he adds.

Prescott says the focus of this well-heelled instructional portfolio is simply "teaching and learning." The UB SoPPS Teacher of the Year Award he received in 2011 is given to a faculty member who has demonstrated excellence, innovation and effectiveness in teaching and advising. Individuals are recognized for one or more efforts in innovative course design, development and implementation in the past five years; improvement of existing courses on an ongoing basis; enhancing student learning through activities inside and outside the classroom; promoting student learning through the implementation of pedagogical and active learning, and participating and contributing to the school's academic, advising and student activities.



"To be effective in the classroom, I believe we first need to create an environment that is conducive to learning," he says, stressing that a new generation of learners calls for the generation of new instructional techniques. "I have modified the format of my classes from purely lecture based to an approach that focuses significantly more on patient cases, because that promotes a more active learning environment."

This approach, in part, includes peer-to-peer learning through case-based assignments completed in groups before or during class, practical laboratory teaching that reinforces classroom instruction, simulation-based learning, and the preparation and presentation of mini-topics on disease state management. "Each of these," he says, "affords students the opportunity to not only hear and see, but to say and do."

Prescott's instructional style also acknowledges the influence that personal technology has on student learning: "Ten years ago, the use of electronic devices in class was rare. Now, the use of electronic devices is a part of daily life, both inside and outside the classroom. We need to be aware that our students are using these devices in class and that this has the potential to impair their ability to pay attention and learn what we are teaching them."

To address this, he and several colleagues recently completed a study to evaluate the use of electronic devices by pharmacy students during a pharmacotherapeutics sequence and assess the impact on academic performance.

"What we found was that the use of electronic devices during class, for both course-related and non course-related reasons, is common. And although electronic device use is associated with a negligible impact on academic performance overall, their use by students early on in the curriculum may have a negative impact on academic performance," Prescott says of the study, to which 140 PharmD students responded.

"We believe these findings will help schools of pharmacy develop policies pertaining to the use of electronic devices during class so as to provide the best possible education to students."

Ultimately, Prescott says he tries to put himself in his students' position when he is in the front of the classroom. "I ask myself, 'what would I want the professor to do to keep my attention?' So to help engage students, I incorporate things like YouTube video clips and random movie scenes that my students are familiar with to relate the material in a fun way that they will remember. The result of these methods is improved student interaction and I believe retention."

Iyer says effective interaction is primary in the technique he uses to engage a new cadre of learners. He has been at the front of a

UB SoPPS classroom for 14 years, and currently instructs courses in protein therapeutics and physical pharmacy; and a lecture and lab in pharmaceutical principles.

It is the course in protein therapeutics, however, in which Iyer has principally flexed his teaching innovation. "Protein pharmaceuticals still is a relatively nascent field, so there is really no textbook test to give at the graduate level to test the knowledge students need," he says.

To address this, Iyer spends 75 percent of the curriculum at the lectern, and the remaining 25 percent facilitating peer-to-peer learning – like Prescott – through an interactive exercise that mimics the format used in the game show "Who Wants to Be a Millionaire."

"I separate the class into four groups with company names and ask each to develop a biotech drug portfolio," he explains. "During the last 25 minutes of the class, I ask them questions and give them a quiz. I give them three lifelines, but instead of making a phone call I ask them to contact their classroom neighbors.

"Use of protein drugs requires a new set of thinking skills," he continues adding that the extensive reading required by his bench work enables him to keep his students up-to-date on state-of-the-art research in the field. "Students gain knowledge in the classroom, but don't know how to apply the facts in a real life situation. This gives them the tools to do that."

Prescott also is working to provide students with state-of-the-art learning opportunities. For the past several years, he has been part of a group of faculty from each of the University at Buffalo Academic Health Sciences Center Schools that has worked to conceive and develop a simulation based learning center.

Located on the UB South Campus, the Behling Simulation Center fosters inter-professional education using high-fidelity human patient simulators, and cases authored by faculty across the disciplines that mimic real life scenarios.

"We believe that training our students with medical students, nursing students, physical therapy students and others pursuing a career in health sciences, will better prepare them to work collaboratively with and communicate with these health care professionals following graduation," Prescott says. "Having open lines of communication and being open to input from other health care professionals is very important to best care for our patients."

When asked what inspires him to teach, Prescott says it is the unlimited potential to pass best patient care knowledge forward.

"As a teacher you are not only impacting the students you teach, but also the patients your students care for in the future. Teaching has a far reaching impact on patient care."

– Jessica Thorpe, *Outside the Box*



Education

The SoPPS educates students in pharmacy and the pharmaceutical sciences, providing them with the critical thinking skills to allow them to achieve the desired outcomes of drug-related therapy and disease management through research and clinical intervention.

Admissions

The Office of Admissions and Advisement strives to continually improve and enhance our processes each year through innovation, creativity, input, and planning. In 2010-11, we continued our expanded in-person interview sessions involving both a faculty or staff member and an alumnus; a campus tour and a patient-care oriented group activity led by our Dean's Student Ambassadors; and a casual yet engaging student social with pizza and our own Western New York favorite "Buffalo Wings." Our Dean's Alumni Ambassadors continue to engage in admissions activities by attending graduate school recruitment fairs across the country, electronically reviewing admission applications, interviewing, and as valued speakers for our annual Orientation and White Coat Ceremony.

Our active social media presence continues with our school based Facebook Fan Page, Twitter, UB Pharmacy YouTube Channel, along with a Wiki-page. These social media tools help us interact with new and existing markets in dynamic ways and better connect with our highly competitive applicants. These initiatives, together with our strong outreach programs and other electronic and paper media, continue to have a positive impact on the quality of our talented and diverse applicant pool, ultimately allowing us to attract and enroll the best students in our P1 PharmD class.

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For 2010, the university and the school continued our strong tradition and welcomed another highly talented freshman class, with 330 students indicating pre-pharmacy as their intended major, representing nearly 10 percent of the University's incoming class. UB's Early Assurance (EA) program continues to offer outstanding pre-pharmacy students the opportunity to enter our PharmD professional program with a minimum GPA of 3.5 and and, for the 2010-2011 academic year, the median GPA for EA students accepted into the program was 3.7.

Meet the Class of 2014

Interviewed	230
Accepted	124
Middle 50th Percentile Science & Math GPA (Biology, Chemistry, Physics, Math)	3.3 – 3.7*
Middle 50th Percentile of Sum PCAT Percentile Score (excluding composite)	335 – 401*
In-State	85%
Out-of-State	15%
Foreign Citizen	5%
Number of States/Provinces Represented	11
Females	60%
Males	40%
2 years or less of college	56%
3+ years of college	10%
Bachelor's degree or higher	34%
Average Age	22

*The middle 50th percentile reflects those between the 25th and 75th percentiles.

Degrees Granted (2010-11)

PharmD	110
BS in Pharmaceutical Sciences	12
BS/MS in Pharmaceutical Sciences	5
PhD in Pharmaceutical Sciences	7
Total	134

Degree Program Enrollment (2010-11)

P1 Year	124
P2 Year	113
P3 Year	119
P4 Year	122
PharmD Subtotal	478
BS in Pharmaceutical Sciences	29
BS/MS and MS in Pharmaceutical Sciences	27
PhD in Pharmaceutical Sciences	42
Pharmaceutical Sciences Subtotal	98
Total Enrollment	576



Continuing Education

Office of Postgraduate Professional and Continuing Education

Fiscal Year 2010-2011

UB Programs	20
UB Certificate Program	1
Home Study Programs	2
Cosponsored	9
Total	32

The Office of Postgraduate Professional and Continuing Pharmacy Education at the University at Buffalo School of Pharmacy and Pharmaceutical Sciences is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmacy education.

The Office of Continuing Pharmacy Education's mission is to provide continuing professional development activities designed in knowledge-, application-, and practice-based learning to meet the needs of pharmacists and preceptors in all practice settings, offering the most up-to-date, objective, and evidence-based programming.

The goal is to support life-long learning and to create an environment of continuing professional development. The University at Buffalo School of Pharmacy and Pharmaceutical Sciences strives to provide continuing education opportunities to assist in the health care delivery of patients in an inter-professional team approach.

Over 1400 pharmacists and healthcare professionals attended live UB SoPPS ACPE accredited CE activities this year. The HIV online Education Center saw over 600 pharmacists throughout the US and abroad successfully complete the pharmacotherapy programs seeking the knowledge and skills necessary to assess, counsel and manage the medications of patients living with HIV infection and other common co-morbidities.

This year the Accreditation Council for Pharmacy Education (ACPE) and the National Association of Boards of Pharmacy (NABP) have recently announced a new electronic tracking service for pharmacists and pharmacy technicians called **CPE Monitor**. The purpose of CPE Monitor is to authenticate and store data for completed CPE units received by pharmacists and pharmacy technicians from ACPE-accredited providers. The Office of Continuing Pharmacy Education has created and transitioned databases and IT systems in compliance with this new requirement, as well as informs and continues to work with program participants ensuring a smooth transition.

Additional information on this collaborative service can be found on the new SoPPS Continuing Pharmacy Education webpage at www.pharmacy.buffalo.edu/ce as well as a link to the recently launched CE program online registration tool.

The postgraduate office offers educational opportunities for resident presentations, preceptor CE and alumni programs. Ongoing development includes the capture of live programming with conversion to a library of home-study offerings.



Continuing Education Programs and Symposia

7/30/2010	New York State Medicaid Medication Therapy Management Training Program, Bronx, NY	2/2/2011	Pathophysiology and Treatment of Addiction: What's Currently Available and What's on the Horizon?
8/13/2010	New York State Medicaid Medication Therapy Management Training Program, Bronx, NY	2/20/2011	Pharmacist Educators in Ambulatory Anti-Hypertensive Therapy Management: Prescriber Education Program, UB North Campus
9/20/2010	Pharmacist Educators in Ambulatory Anti-Hypertensive Therapy Management: Prescriber Education Program	2/27/2011	Pharmacist Educators in Ambulatory Anti-Hypertensive Therapy Management: Prescriber Education Program, Rochester, NY
11/21/2010	Simple Approaches to Enhance Student Enjoyment During Experiential Education	3/6/2011	Pharmacy Law Update 2011 in Buffalo, NY
12/7/2010	Gram Positive Infections 2010	3/11/2011	Medication Errors and Prevention Program in Rochester, NY
1/9/2011	Medication Errors and Prevention in Buffalo	5/18/2011	Medication Errors and Prevention Program (Preceptors) in Buffalo, NY
1/12/2011	Use of Pancreatic Hormones in Patients with Diabetes: The Who, When and How	5/25/2011	16th Annual Comprehensive Pharmacy Law CE for Pharmacists, Day 1
1/12/2011	Use of Gastrointestinal Hormones In patients with Diabetes: The Who, When and How	5/26/2011	16th Annual Comprehensive Pharmacy Law CE for Pharmacists, Day 2
1/19/2011	Prevention of Perinatal Transmission in the HIV Population	Ongoing:	Online-HIV Pharmacotherapy Annual Update 2011
1/19/2011	Neuropsychiatric Illness in the HIV/AIDS Patient	Ongoing:	Online-HIV Pharmacotherapy Community Pharmacy CE Program
1/26/2011	Pain Management in the Community: Avoiding Stereotypes While Improving Quality of Life	Ongoing:	Online-HIV Pharmacotherapy Practice-Based Program
1/29/2011	Pain Management in the Community: How Pharmacists can Contribute		

Residency Training Program Summary 2010-11

The Department of Pharmacy Practice continued its strong commitment to innovative and challenging post graduate education via our general (PGY-1) and specialty (PGY-2) residency training programs. During the 2010-11 academic year, our residency program demonstrated growth in both inpatient and outpatient programs. This past year, our program consisted of six PGY-1 programs; two ambulatory care/primary care, two inpatient (increased from one in 2009-10), one in hospice/palliative care, and one community (increased from zero in 2009-10). Our program also offered three PGY-2 programs; HIV, psychiatry, and informatics.

Our mission, to educate pharmacy residents in pharmacy practice, clinical precepting, didactic teaching, clinical research and manuscript writing; to provide patient care; and to provide services to the community at large based upon this knowledge, with the goal of training pharmacy residents to practice autonomously in the clinical pharmacy and/or academic settings, sets the framework for our program.

The goals of our program are accomplished by involving our residents in unique clinical activities such as those available within local medical groups, health maintenance organizations, hospitals and other community health locations. These goals are further enhanced via novel research projects and a

variety of teaching opportunities. Specifically, our residents participate in a unique didactic research course, attend an established teaching certificate program, actively participate in small and large group didactic teaching and clinical precepting, present an ACPE accredited CE program, and conduct a research project. The University at Buffalo School of Pharmacy sponsors an annual Residency Presentation Day, which continued to expand in 2011, and includes multiple residency programs from the Western New York, Rochester, and Syracuse area. This program gives all residents the opportunity to give a platform style presentation to their resident peers as well as faculty and staff with winners chosen based on the merit of their presentation.



PHARMACEUTICAL SCIENCES POSTDOCTORAL ASSOCIATES/FELLOWS

Sihem Ait-Oudhia
Mechanistic PK/IPD Modeling of Anti-cancer Drugs; Modeling of Noninvasive Images of Tumor Vasculature; Mechanism-based Disease Progression Modeling of Rheumatoid Arthritis

Yanguang Cao
Mechanistic PK/IPD Modeling of Anti-diabetes Drugs

Qiuying Cheng
Pharmacogenetics and Molecular Biology of Human and Dog Carbonyl Reductases

Lucie Chevillard
Investigation of the Pharmacokinetics and Pharmacodynamics of Cocaine that Drive Addiction/Dependence and Relapse from a Quantitative System Pharmacological Perspective

Xiaotao Duan
Mass Spectrometric Analysis in Clinical Proteomics and Endogenous Metabolism

Melanie Felmlee
In Vitro-In Vivo Extrapolation of Renal Clearance: Determination of Scalars of Renal Transporters

Brent Footer
Reagent-Free Detector for the Continuous Measurement of Analytes In-Vivo

Allison Gaudy
Influence of Charged Residues in the Variable Domain on Half-Life, Tissue Distribution, and Bioavailability of Therapeutic IgG Antibodies

Salaheldin Hamed
PK/IPD/disease Modeling of Gemcitabine for More Efficacious Treatments of Pancreatic Cancer

Xiaosheng Jiang
Clinical Proteomic Profiling on Cancer and Cardiovascular Diseases

Leonid Kagan
Investigation of Interferons PK and PD

Investigation of Subcutaneous Absorption of Monoclonal Antibodies

Hong Li
Population PK Modeling and Limited Sampling Strategy to estimate Mycophenolic Acid Area under the Concentration-time Curve in Hematopoietic Stem Cell Transplantation Recipients

Population Modeling of Long-Term Steroid-induced Bone Loss in Patients Undergoing Hematopoietic Stem Cell Transplantation

Jun Li
Proteomic Investigation of Drug Therapy Responsive Proteins and their Post-translational Modifications (PTMs)

Dongyang Liu
PK/IPD/IPG/DIS Models for Exploration of Cytokines Role in RA Progression of Rats

Srinidi Mohan
Arginine Paradox and Tolerance
Ayse Meric Ovacik
Algorithmic Study Design for Identification of Target Expression from Disposition Data

Systems Pharmacology Modeling of Therapeutic Proteins in Signaling Networks

Yuzhuo Pan
miRNA Regulation on Drug Metabolism and Disposition

Samuel Roiko
The Role of Monocarboxylate Transporters in the Toxicokinetics/ Toxicodynamics of GHB (gamma-hydroxybutyrate)

Hongwu Shen
Drug-Drug Interactions of Indolealkylamines

Indrajeet Singh
Upregulation of Erythropoietin and Reticulocytes in Rats Induced with Hypoxia and the Resultant PK/IPD Analysis

Mitalee Tamhane
Lymphatic Uptake of Proteins by Non-invasive Fluorescence Imaging

Tissue Distribution and PBPK Modeling of Proteins

Chengjian Tu
Proteomic Analysis for Biomarker Discovery in Cancer, Neurotic, and Cardiovascular Diseases

Fang Wu
Lymphatic Uptake of Proteins: Use of Whole Body Fluorescence in Rats

Hongmei Xu
Pharmacokinetics and Pharmacodynamics of Antibiotic Drugs

Ying Zhang
Systems Biology of Erythropoietin Production Under Hypoxic Conditions in Rats

Application of Transit Compartments Model in Describing Signal Transduction and Delays in PK/IPD Systems

Bo Zheng
Pharmacokinetics and Pharmacodynamics of Antibody and Protein Drugs

PHARMACY PRACTICE RESIDENTS/FELLOWS

Shari Allen, PharmD
Resident
PGY2-Psychiatry

Mostafa Elgebaly, PhD
Fellow
Drug Development/Novartis

Gina Ferris, PharmD
Resident
PGY1- Primary Care/Buffalo Medical Group

Cory Fominaya, PharmD
Fellow
Outcomes Research

Samira Garonzik, PharmD
Fellow
Drug Development/Novartis

Rachel Giroux, PharmD
Resident
PGY1- Community Pharmacy/ Middleport Family Health Center

Ashley Hughes, PharmD
Resident
PGY1- Pharmacy Practice/ECMC

Kiana Keyvanjah, PharmD
Fellow
Drug Development/Novartis

Shankar Lanke, PhD
Fellow
Drug Development/Novartis

Natalie Latuga, PharmD
Resident
PGY1- Homecare/Hospice

Ridhi Parasrampur, PhD
Fellow
Drug Development/Novartis

Sonia Sawkar, PharmD
Resident
PGY1- Ambulatory Care/Lifetime Health

Maura Schwab, PharmD
Resident
PGY1- Psychiatry

Vanessa Stevens, PhD
Fellow
Outcomes Research

Karen Thudium, PharmD
Fellow
Drug Development/Novartis

Kendra Vermeulen, PharmD
Resident
PGY2- HIV/AIDS

Commencement Awards

Lilly Achievement Award

Carolyn Hempel

Phi Lambda Sigma of Achievement, Chapter Member of the Year Award

Kristen Zeitler

Michael E. Crawford Award

Melissa Apa

Eino Nelson Award

Kate Fifield

UB Pharmacy & Pharmaceutical Sciences Alumni Association Award

Samuel Aitken

David E. Guttman Award

Patrick Glassman

Renee A. Dederich Award

Brian Badgley

Francis P. Taylor Award

Kate Fifield

UB School of Pharmacy & Pharmaceutical Sciences Professionalism Award

Kristen Zeitler

Robert H. Ritz Award

Kate Fifield

National Community Pharmacists Association Outstanding Student Member Award

Michael Grota

ASP National Patient Counseling Award

Michael Krajewski

Roger Mantsavinovs Award

Carolyn Hempel

Lori Esch Memorial Award

Stephanie Newman

Merck Award

1st Amy Telesz

2nd Robert Seabury

3rd Brian Ames

Robert M. Cooper Memorial Award

Amy Telesz

Mylan Pharmaceutical Excellence in Pharmacy Award

David Jacobs

Facts and Comparisons Award of Excellence in Clinical Communication

Katherine DiPalo

Roy M. Barr Award

1st Kate Fifield, 2nd Pulkit

Bhuptani

Western New York Society of Health-system Pharmacists Award

Kristina Marchese

Samuel J. Bauda Award

Brian Salvas

Pharmacists' Society of the State of New York

Kristen Zeitler

Natural Medicines Comprehensive Database Recognition Award

Jerry Altshuler

McKesson Leadership Award

Michael Krajewski

TEVA Pharmaceuticals USA Outstanding Student Award

Calvin Meaney

Margaret C. Swisher Memorial Award

Robert Seabury

A.B. Lemon Memorial Award

Ashley Smith

ASP Certificate of Recognition

1st Gauri Rao, 2nd Michael

Krajewski

The Inpatient Advanced Pharmacy Practice Experience Award

Brian Ames

The Outpatient Advanced Pharmacy Practice Experience Award

Robert Seabury

Pharmacists' Association of Western New York Student Leadership Award

Kristen Zeitler

Excellence in Pharmacogenomics Award

Thao Doan

Katherine Doyle Memorial Award

Stephanie Newman

Kelli Jordan Memorial Award

Gauri Rao

The Outstanding Graduating Senior Award in Pharmaceutical Sciences

Patrick Glassman

The Robert H. Gumtow Undergraduate Research Award in Pharmaceutical Sciences

Laura Radecki

The Alfred and Erma Jones Award

Laura Radecki

Excellence in Teaching Award

William Prescott, PharmD

Clinical Assistant Professor

Student Achievements

2011 School Awards

Ceremony Winners:

Gauri Rao: Daniel H. Murray Memorial Professional Development Award

Brian Badgley: U.S. Public Health Service Excellence in Public Health Pharmacy Practice Award

2011 SoPPS Student Research Poster Winners

BS/MS: Hao Sun, Laura Radecki & Gavriilo Durica, Shunxin Lin, Matthew Foster & Jamie Chin

P3 Student: Kyle Hacker

P4 Students: Gauri Rao and Angela Mwaurar

American Association of Colleges of Pharmacy Pruitt-Schutte Business Plan Competition, 3rd Place Team Members

Christopher Daly, Christopher Diehl and Clare Carroll

American Pharmacists Association Academy of Student Pharmacists

2011 Operation Heart Region winner with team leader Ali Mohamedali honored with a plaque for his efforts.

Supported the 2011 Operation Diabetes project by participating in the annual American Diabetes Association: StepOut: Walk to Fight Diabetes.

Supported Operation Immunization with patient care projects focusing on providing education on the importance of receiving vaccines.

Patient Counseling Competition:

1st Place: Arthur Fyles

2nd Place: Kyle Ma

3rd Place: Tara Castleman

Kyle Ma represented APhA-ASP in the International Pharmaceutical Students' Federation (IPSF) Student Exchange Program.

Jamie Chin appointed Vice Chair of APhA-ASP's National Education Standing Committee.

Jason Hou recipient of the APhA-ASP 2011 President's Award.

Student National Pharmaceutical Association 2011 Award Recipients

Academic Excellence Award:

Diane Yu, Femi Adesina, Mohamed Ahmedin, Ngozi Geraldene Agbasionwe, Uzy Atuegwu, Toyin Fabiyi

Service Excellence Award:

Abdul Ghorbandi

Ingrid Johnson '92 Founders Award:

Uzy Atuegwu

Leadership Excellence Award:

Ngozi Geraldene Agbasionwe

Teresa Rizzone-Ebel and **Kristen Della Penna** accepted into the Veterans Administration VALOR (internship) program here at the Buffalo VA Medical Center.

Student Supporters

The following supporters have provided generous funding for the educational training of pharmacy postgraduate residents and fellows, as well as trainees in all levels for pharmaceutical sciences programming.

Pharmaceutical Sciences

PHD STUDENTS

Genentech Bioncology

Jun Wang

Pfizer Inc.

Vaishali Chudasama

Xiling Jiang

Jonathan Knights

Matthew Kosloski

Bridget Morse

Schering Corp.

Yang He

Daiichi Sankyo, Inc.

James Kalabus

John and Editha Kapoor Fund

Puneet Gaitonde

POSTDOCTORAL

ASSOCIATES/FELLOWS:

Pfizer, Inc.

Sihem Ait-Oudhia

Yanguang Cao

Indrajeet Singh

Hongmei Xu

Hoffman LaRoche

Salaheldin Hamed

Center for Protein

Therapeutics

(Genentech, Lilly, Roche, Merck, Pfizer, Abbott, Boehringer Ingelheim)

Hong Ding

Brent Footer

Allison Gaudy

Leonid Kagan

Dongyang Liu

Mitalee Tamhane

Fang Wu

Ying Zhang

Bo Zheng

Pharmacy Practice

POST GRADUATE

RESIDENTS AND FELLOWS

Lifetime Health Medical Group

Sonia Sawkar

Buffalo Medical Group

Gina Ferris

Novartis Pharmaceuticals Corporation

Lanke, Shankar

Thudium, Karen

Parasrampuria, Ridhi

Samira Merali

Mostafa Elfebaly

Kiana Keyvanjah



The VALOR program is an honors program that provides outstanding students a chance to develop competencies in pharmacy practice while working at a VA health facility.

Individual Achievements

Lubna Abuqayyas recipient of the 2011 American Association of Pharmaceutical Scientists Graduate Student Award.

Geraldine Agbasionwe recipient of scholarship from the National Association of Chain Drug Stores' Foundation.

Samuel Aitken appointed as a member of the American College of Clinical Pharmacy Credentialing Committee.

Michael Bear published Bear, M. D., Li, M., Liu, Y., Giel-Moloney, M. A., Fanburg, B. L., & Toksoz, D. (2010). The Lbc Rho Guanine Nucleotide Exchange Factor/_-Catulin Axis Functions in Serotonin-

induced Vascular Smooth Muscle Cell Mitogenesis and RhoA/ROCK Activation. *Journal of Biological Chemistry*, 285(43), 32919-32926. doi:10.1074/jbc.M109.062513.

Emily Chan elected as American Pharmacists Association-Academy of Student Pharmacists Region 1 Mid-Year Regional Coordinator.

Lauren Dingman recipient of a pharmacy scholarship from McKesson Corporation.

Kristen Gawronski published (along with faculty member, Dr. Fran Gengo and alumna Michelle Rainka '05): Gawronski KM, Rainka MM, Patel MJ, and Gengo FM. Treatment Options for Multiple Sclerosis: Current and Emerging Therapies. *Pharmacotherapy* 2010;30(9):916-927.

Lisa Kurczewski presented, "Clopidogrel Enhances Platelet Responsiveness

to Aspirin" at the annual American College of Clinical Pharmacology meeting. This abstract was also published in September 2010 issue of *The Journal of Clinical Pharmacology*.

Yuzhuo Pan, recipient of a travel award from Drug Metabolism Division, American Society for Pharmacology and Experimental Therapeutics. Yuzhuo was also selected to give an oral presentation at the Experimental Biology 2011 Annual Meeting.

Laura Radecki recipient of the Alfred & Irma T. Jones Award.

Christopher Sherrow recipient of the American Association of Colleges of Pharmacy Walmart Scholars Program Award.

Kristen Zeitler recognized as Phi Lambda Sigma's 2011 Member of the Year.

Who's Who Among Students in American Universities and Colleges

Alicia Harrison
Andrew Stivers
Ashley Smith
Brian Badgley
Calvin Meaney
Carolyn Hempel
Christina Hall
Danielle Kauffman

David Jacobs
Drew Lambert
Gauri Rao
Ishita Patel
Justine Kirsch
Kristen Zeitler
Kristina Marchese
Kyle Mack

Laura Vespi
Michael Grota
Michael Krajewski
Nicholas Scalzo
Rezarta Ajazi
Samuel Aitken
Stephen Tarbell



2010-11 Degree Recipients

Bachelor of Science in Pharmaceutical Sciences

September 2010
Carrie Sanborn
Jennifer Swieck

June 2011
Ayodeji Akinwande
Denise Bentley
Jenna Clark
Patrick Glassman
Laura Radecki
Catherine Slota
Hao Sun
Ying Wang
Amy Zhou

Bachelor of Science/ Master of Science in Pharmaceutical Sciences

February 2011
Michael Turner

Master of Science in Pharmaceutical Sciences

September 2010
Lavanya Iyer
Jessica Klapa

June 2011
Charvi Nanavati
Hao Wang

Doctor of Pharmacy

June 2011
Matthew Agosti
Samuel Aitken
Christina Allen
Jerry Altshuler
Brian Ames
Lisa Anderson
Melissa Apa
Brian Badgley
Danielle Baldwin
Kristen Bayerl
Shana Beg
Daniel Benimoff
Stephen Bernard
Pulkit Bhuptani
Richard Brecker
Joseph Brennan
Amy Brightbill
Michael Cardamone
Christopher Chan
Hai Chan

Kelly Chan
Katherine DiPalo
Thao Doan
Oluwa Fabiyi
Kate Fifield
Matthew Foster
Hsin-Wei Fu
Jessica Gaiser
Michael Grota
Christina Hall
Jonathan Hangey
Alicia Harrison
Leah Heckeler
Carolyn Hempel
Anne Hojnacki
Johnny Hon
Kevin Hsu
Esther Huang
Hao Huang
Kyle Iannotti
David Jacobs
Danielle Kauffman
Amber Kelkenberg
Michelle Khait
Tiffany Kiblin
Justine Kirsch
Lindsay Kohl
Michael Krajewski
Lisa Kurczewski
Na Rae Kwon
Rezarta Lako
Drew Lambert
Shin Haeng Lee
Susan Lee
William Leung
Marisa Lewengrub
Jamie Lewis
Jathiyah Lewis
Susan Lo
Hoi Man Ma
Kyle Mack
Sean MacMaster
Jackson Maina
Christina Manciocchi
Peggy Mann
Kristina Marchese
Aniela Markut
Calvin Meaney
Jamie Miranda
Angela Mwaura
Tracey Nagel
Megan Nelson
Stephanie Newman
Patricia Ng
Dung Ngo
John Nguyen
Elissa Ostrander

Elizabeth Panfil
Kruti Parikh
Ishita Patel
Richard Perrello
Lauren Petroziello
Anthony Pietrzak
Allison Pitman
Chi Ki Poon
Eugene Przespo
Gauri Rao
Stacy Reger
Gabrielle Riorden
Brian Salvas
Elizabeth Sanders
Nicholas Scalzo
Robert Seabury
Anand Shah
Charles Shearcraft
Ashley Smith
Andrew Stivers
Stephen Tarbell
Rebekah Tate
Amy Telesz
Evan Tong
Taylor Topping
Vinh Tran
Yu Ching Tse
Laura Vespi
Manuel Villaverde
Edward Wales-McGarth
Benjamin Wee
Sarah Wightman
Kristin Zeitler

Doctor of Philosophy in Pharmaceutical Sciences

September 2010
Guohua An

February 2011
Suraj Bhansali
Melanie Felmlee
Wei Gao
Chao Xu

June 2011
Xiling Jiang
Aaron Peng
SoYoung Shin

Research and Training

Create cutting edge research that enhances the body of knowledge needed for professional education, healthcare delivery, and advancement of sciences that will improve the health and wellness of the global community.

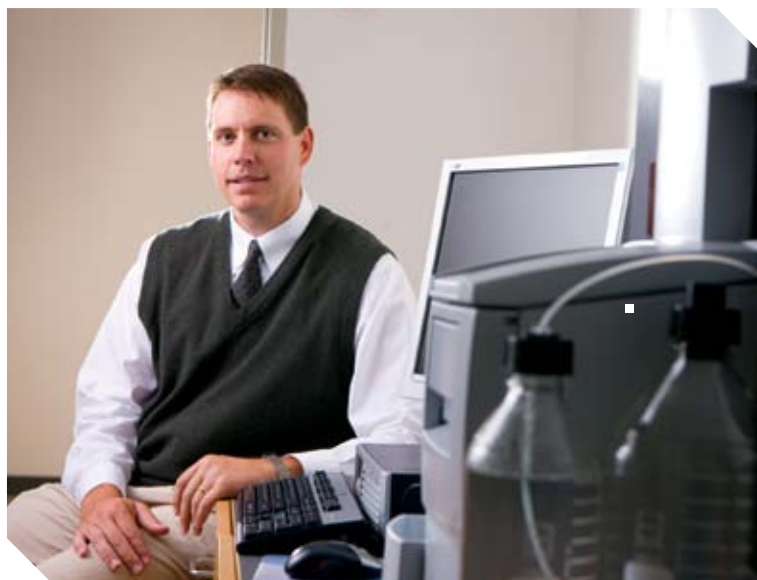
Department of Pharmaceutical Sciences


Our Department has a well established, international reputation for a tradition of excellence in teaching and research and continues to be well positioned to expand to continue its leadership in Pharmacokinetics, Pharmacodynamics, and Protein Therapeutics.

Of continued strength are the activities in the Center for Protein Therapeutics, directed by Dr. Joseph P. Balthasar. With additional major input from Drs. Jun Qu, Marilyn Morris, and Donald Mager, and participation by several other members of the Department, the Center seeks to apply our capabilities in pharmacokinetics, pharmacodynamics, protein analysis, and protein formulation, and to address major questions regarding the delivery, pharmacokinetics, and in vivo effects of protein drugs such as monoclonal antibodies. The Center continues to be successful in seeking outside support and continuing strong partnerships with industry leaders. Research sites are at the Center of Excellence in Bioinformatics and Life Sciences in the Buffalo Niagara Medical Campus Corridor as well as in the Cooke-Hochstetter Building on the university's North Campus. Financial support of \$1.35 million for the fourth year of research and training by the Center was provided by Abbott, Boehringer-Ingelheim, Eli Lilly, Genentech, Hoffman-LaRoche, Merck, Pfizer, as well as additional related funding provided by Novartis and Amgen.

We have excellent faculty members over a range of academic levels with highly productive, largely NIH-funded research programs and as well as corporate support. Donations of over \$150,000 for graduate student training were provided by Daiichi Sankyo, Schering-Plough, Hoffman-LaRoche, and Amgen, and as well as continued funding of a training grant for \$250,000 to support students and post-doctoral fellows by Pfizer Pharmaceuticals.

Our long-standing and highly respected Seminar Program was offered with over 25 presentations in 2010-2011 by local and visiting scientists. Dr. Richard LaLonde, Vice-President and Global Head of Clinical Pharmacology at Pfizer Pharmaceuticals was selected for the 2010 Gerhard Levy Distinguished Lecture-ship in Pharmaceutical Sciences. His presentation was entitled, "Impact of Pharmacokinetic – Pharmacodynamic Modeling and Simulation in Drug Development." Other notable speakers during the academic year were: Dr. Ioannis Androulakis,





Professor of Biomedical Engineering at Rutgers University; alumna Dr. Elizabeth Bachert from Pfizer; Dr. Maria Zavodsky from GE Computational Biology in Albany; Dr. Peter Swann from the University of Maryland; Dr. Daryl Drummond from Merrimack Pharmaceuticals in Cambridge; and Dr. Frank Szoka from the University of California in San Francisco. The Graduate Student Association hosted alumnus Dr. Danny Shen from the University of Washington as the GSA Alumni Speaker who presented, "Interplay of Transport Processes in Governing Brain Uptake, Compartmentalization and Clearance of Valproic Acid."

Our Department faculty members were active in dissemination of our scientific accomplishments and knowledge. We had 85 research articles and book chapters published and gave 79 seminars, lectures, and research presentations at various scientific meetings, university, and industrial venues.

The Department offers annual courses in Pharmacokinetic-Pharmacodynamic Modeling, Protein Therapeutics, and Population Pharmacokinetic Modeling for visiting scientists from the pharmaceutical industry, academia, and the FDA in May which included our 19th session of the PK/PD Modeling course. Three of our faculty, Drs. Mager, Balthasar, and Jusko, also presented the PK/PD courses at the University of Paris Descartes in January. Similarly, the Department offers an annual summer workshop in Molecular Genetic Methodologies for Pharmaceutical Sciences. Some of these courses are also provided on site at various pharmaceutical companies and other universities.

Dr. William Jusko was awarded the 2011 Leadership Award from the American Society of Pharmacometrics at their annual meeting in San Diego in April 2011. Dr. Donald E. Mager was promoted to Associate Professor with tenure and Dr. Murali Ramanathan to full Professor. Our highly valued Administrative Assistant, Liz Rugg, was deservedly named 'Staff Member of the Year'. We experienced losses of two esteemed faculty members, Dr. Gayle Brazeau and Dr. Daniel Brazeau, who relocated to the New England College of Pharmacy.

The Department is poised for further growth of its research and training programs. We are expanding capabilities in the areas of Protein Therapeutics and Cancer Therapeutics and continuing our prominence in Pharmacokinetics and Pharmacodynamics.

Department of Pharmacy Practice

The 2010-11 academic year was a robust and productive year for the department of Pharmacy Practice. The teaching and research of our faculty continued to increase within the PharmD program as well as with our postgraduate training programs. Our residency programs expanded in both inpatient and outpatient settings and we offered three PGY-2 programs.

Our faculty members represented the school well at many national meetings and their scholarly activity was strong. William Prescott was recognized for his innovative teaching techniques and was the recipient of the school's 2011 Teacher of the Year Award. Karl Fiebelkorn and Nicholas Norgard were recognized for their dynamic teaching as 2011 TOY Finalists.

The department is proud of the continued collaboration with the New York State Department of Health. Activities have continued to grow and expand with involvement in a pilot Medication Therapy Management Program, statewide drug utilization review and a novel prescriber education program (PEP). These efforts, in collaboration with other SUNY health science units, are expected to provide much benefit to New York State Medicaid recipients and provide excellent opportunities for our faculty and students to engage in pharmaco-economic and pharmaco-informatic scholarly activities.

The Office of Experiential Education has continued to have great success in enhancing and expanding rotational sites for our students. The new scheduling and management software has proven to be a great asset in managing the increasing number of rotational opportunities. Faculty Development opportunities continue to be reviewed and enhanced with the many innovative development sessions available through the University's Teaching and Learning Center.

Continuing Education programming has continued to be a vital link to our community partners. In 2010-2011, 32 programs were offered by our Office of Post Graduate and Professional Education. Programs offered diverse course content such as the 'Pathophysiology and the Treatment of Addictions', 'Use of Pancreatic Hormones in Persons with Diabetes' along with many online courses.

Faculty Grants Awarded

July 1, 2010 - June 30, 2011

Pharmaceutical Sciences

Joseph Balthasar

Multiple Sponsors
Protein Therapeutics Consortium
Novartis Pharmaceuticals
Lab for Protein Therapeutics

Javier Blanco

National Institute of General Medical Sciences (RO1)
Pharmacogenetics of Human Carbonyl Reductases

William Jusko

National Institute of General Medical Sciences
Corticosteroid Pharmacokinetics and Pharmacodynamics
National Institute of General Medical Sciences (Mager and Krzyanski Co-PI's)
Mathematical Models in Pharmacodynamics

Donald Mager

Fred Hutchinson Cancer Research Center
Population Pharmacokinetics/Pharmacodynamics in Nonablative Stem Cell Recipients
F Hoffman La Roche
Modeling of the Pharmacokinetics of TDM1 using a mechanism based approach

Marilyn Morris

National Institute on Drug Abuse
"Gamma-Hydroxybutyrate: Toxicokinetics, Toxicodynamics and Treatment Strategies"

Jun Qu

National Institute of Health (Co-PI)
Identification of colon cancer protein biomarkers in the blood
Health Research Inc. (Co-PI)
Pathogenesis of Moraxella Catarrhalis in chronic obstructive pulmonary disease
CH3 Biosystems LLC
UB CAT: Validation of Methylation Status for Methylarginine Proteins

US Army Medical Research Acquisition Activity
Gene-Environmental Interactions in Progression of Multiple Sclerosis

National Institutes of Allergy and Infections (Co-PI)
ARRA: Pathogenesis of Moraxella Catarrhalis in Chronic Obstructive Pulmonary Disease

National Institutes of Allergy and Infections (Co-PI)
Protein Arginine Methylation in Trypanosomes

Murali Ramanathan

National Multiple Sclerosis Society
Brain-Derived Neurotrophic Factor in Multiple Sclerosis
US Army Medical Research Acquisition Activity
Gene-Environmental Interactions in Progression of Multiple Sclerosis

Monsanto Company
Gene x Gene Interactions

Jerome Schentag

TheraSyn Sensors Inc
UB CAT: Development of Xerogel Panels as Sensor Systems for Multi-Analyte Sensor Applications
TheraSyn Sensors Inc
UB CAT: Development of Microdialysis-based Fluidic Flow-Cell Disposable Units and Pumping Systems

Robert Straubinger

Trustees of Columbia University
Optical Imaging of Chemotherapy for Brain Tumors
National Institute on Drug Abuse (Dr. Qu Co-PI)
Peripheral Biomarkers of Cocaine Dependence and Relapse

Aiming Yu

National Institute on Drug Abuse (Drs. Jusko and Boje Co-PI's)
Pharmacogenetics in Indolealkylamine Metabolism and Drug Interactions
Board of Trustees of the University of Illinois
Altered Drug Metabolism in Pregnancy



Pharmacy Practice

Jack Brown

Cubist Pharmaceuticals
Occurrence and economic impact of nephrotoxicity related to vancomycin exposure

Alice Ceacareanu

NYS Department of Health
Modulation of Inflammatory Response by Diabetes Management in Breast Cancer Patients: a Potential Modifier of Breast Cancer Prognosis

Alan Forrest

University of Pittsburgh
Optimizing Dosing of Colistin for infections resistant to all other antibiotics

Hoffman LaRoche Inc.
Pharmacy Roche Fellowship

Gene Morse

Erie County Medical Center
HIV Treatment Education
 Erie County Medical Center
New York State Adherence Project

Fogarty International Center (Drs. Ma and Maponga Co-PI's)
Antiretroviral Pharmacology Training in Resource Poor Countries
 "Social and Scientific Systems, Inc."
ACTG Pharmacology Laboratory

National Institute of Allergy & Infectious Disease (Options 1-5)
Clinical Pharmacology Quality Assurance and Quality Control

Social and Scientific Systems Inc.
Aids Clinical Trials Group Network

Social and Scientific Systems Inc.
ACTG Precautionary & Prohibited Medication Table

University of Rochester
Upstate New York Translational Research Network (UNYTRN)

University of Rochester
Units for HIV/AIDS Clinical Trials Network

University of Rochester
CHET

University of Rochester
ARRA: Researcher Resilience through Multidimensional Mentoring: The Rochester Research Workforce Diversity Program

University of Rochester
Units for HIV/AIDS Clinical Trials Network: Equipment

University of California, San Francisco
Disulfiram Interactions with HIV Medications: Clinical Implications

Kathleen Tornatore

National Institute Diabetes & Digestive & Kidney Disease
ARRA: Genomic and Cellular Markers and Chronic Renal Allograft Function

Department of Health (Co-PI)
Empire Clinical Research Investigator Program (ECRIP); Fellowship in Clinical Research Training for Physicians

Brian Tsuji

Monash University
Targeting MDR Hetero-Resistant Gram-Negatives: PK/IPD for Rational Combinations

Cubist Pharmaceuticals, Inc.
Research Material Transfer Agreement: Pharmacokinetic-Pharmacodynamic Evaluation of CXA-102 Against Multi-Drug Resistant Gram Negative Organisms

American Foundation Pharmaceutical Education
Fellowship for Neang Ly

New Technology

Invention Disclosure	Faculty Member
Inverse Vaccination to Mitigate Immunogenicity of Protein Therapeutics	Sathy Balu-Iyer

Issued Patents	Faculty Member
Compositions of Less-Immunogenic and Long Circulating Protein-lipid Complexes	Sathy Balu-Iyer, Robert Straubinger
Method for Treating Blood Coagulation Disorders	Sathy Balu-Iyer, Robert Straubinger
Bridging Centrality: A Concept and Formula to Identify Bridging Nodes in Scale-free Networks	Murali Ramanathan



Scholarship

Pursue innovation, identify solutions and present results to enhance the local, national and international leadership of SUNY, UB and the SoPPS.

Intellectual Contributions
July 1, 2010 - June 30, 2011

Pharmaceutical Sciences

Balthasar, Joseph P.

Girish, S., Martin, S.W., Peterson, M.C., Zhang, L.K., Zhao, H., Balthasar, J.P., Evers, R., Zhou, H., Klunk, L., Han, C., Berglund, E.G., Huang, S.M., & Joshi, A. "AAPS Workshop Report: Strategies to Address Therapeutic Protein-Drug Interactions during Clinical Development." AAPS J, June 2011.

Shah, D.K., Veith, J., Bernacki, R.J., & Balthasar, J.P. "Evaluation of combined bevacizumab and intraperitoneal carboplatin or paclitaxel therapy in a mouse model of ovarian cancer." Cancer Chemother Pharmacol, Feb. 2011.

Shah, D.K., & Balthasar, J.P. "Physiologically based pharmacokinetic model for topotecan in mice." J Pharmacokinet Pharmacodyn, Feb. 2011.

Shin, B.S., Bulitta, J.B., Balthasar, J.P., Kim, M., Choi, Y., & Yoo, S.D. "Prediction of human pharmacokinetics and tissue distribution of apicidin, a potent histone deacetylase inhibitor, by physiologically based pharmacokinetic modeling." Cancer Chemother Pharmacol, Nov. 2010.

Balu-Iyer, Sathy V.

Kosloski, M., Peng, A., Varma, P., Miclea, R.D., Mager, D.E., & Balu-Iyer, S.V. "Immunogenicity and pharmacokinetic studies of recombinant Factor VIII containing lipid cochleates." Drug Delivery, vol. 8 (2011), pp. 246-253.

Gaitonde, P., & Balu-Iyer, S.V. "In vitro Immunogenicity Risk-assessment of Therapeutic Proteins in Preclinical Setting." Methods in Molecular Biology, vol. 716 (2011), pp. 267-280.

Pisal, D., & Balu-Iyer, S.V. "Phospholipid binding improves plasma survival of Factor VIII." Thrombosis and Haemostasis, vol. 104 (2010), pp. 1073-1075.

Pisal, D.S., & Balu-Iyer, S.V. "Phospholipid Binding Lowers Immunogenicity of Human Recombinant Factor VIII in von Willebrand Factor Knockout Mice." Thrombosis and Haemostasis, vol. 105, pp. 1115-1118.

Gaitonde, P., Peng, A., Bankert, R., Straubinger, R.M., & Balu-Iyer, S.V. "Phosphatidyl serine reduces immune response against human recombinant Factor VIII in Hemophilia A mice by regulation of dendritic cell function." Clinical Immunology, vol. 138, pp. 135-145.

Blanco, Javier G. G.

Kalabus, J.L., Sanborn, C.C., Jamil, R.G., Cheng, Q., & Blanco, J.G. "Expression of the anthracycline metabolizing enzyme carbonyl reductase 1 (cbr1) in hearts from donors with down syndrome." Drug Metabolism and Disposition, vol. 38 (2010), pp. 2096-9.

Hampras, S.S., Sucheston, I., Weiss, J., Baer, M.R., Zirpoli, G., Singh, P.K., Wetzler, M., Chennamaneni, M., Blanco, J.G., Ford, L.A., & Moysich, K.B. "Genetic Polymorphisms of ATP-binding Cassette (ABC) Proteins, Overall Survival and Drug Toxicity in Patients with Acute Myeloid Leukemia." International Journal of Molecular Epidemiology and Genetics, vol. 1 (2010), pp. 201-207.

Blanco, J.G., Sun, C., Landier, W., Chen, L., Oeffinger, K., Hudson, M., Neglia, J., Ritchey, A., Relling, M., & Bhatia, S. Anthracycline-related cardiomyopathy in childhood cancer survivors and association with polymorphisms in the carbonyl reductase genes: A Children's Oncology Group study. 2010, pp. 9512.

Fetterly, G., Thudium, K., Murphy, M., Prey, J., Kalabus, J.L., Tracey, O., & Blanco, J.G. Understanding the Role of Carbonyl Reductase Polymorphisms on Doxorubicin-Induced Cardiotoxicity with Population Pharmacokinetics (PK). Chicago, IL: American Society of Clinical Oncology, 2011.

Brazeau, Daniel A.

Tornatore-Morse, K.M., Brazeau, D.A., Dole, K., Gillis, K.A., Wilding, G.E., Leca, N., Yassa, S., & Venuto, R.C. "The Influence of Race and Gender on Time-Dependent Expression of MDR-1 in Stable Renal Transplant Recipients." Clinical Pharmacology & Therapeutics, 2010.

Renzi, S.E., Costanzo, K.M., Sauberan, M.M., Hess, J., Brazeau, D.A., & Brazeau, G.A. NAPLEX Performance as a Function of Grades in a Pharmacotherapeutics Sequence and Cumulative Grade Point Averages. AACP, 2010.



Costanzo, K.M., Renzi, S.E., Sauberan, M.M., Hess, J., Brazeau, D.A., & Brazeau, G.A. Student Academic Performance in 2004-2010 Graduates as a Function of Pre-Pharmacy Years of College. AACP, 2010, pp. 1.

Fung, Ho Leung

Page, N.A., & Fung, H.L. Pharmacology of Nitrovasodilators. Nathan Bryan & Joseph Loscalzo (Eds.), Springer/Humana Press, 2011.

Krishnatry, A.S., Fung, S.M., Brazeau, D.A., Soda, D., & Fung, H.L. "Nitroglycerin alters matrix remodeling proteins in THP-1 human macrophages and plasma metalloproteinase activity in rats." *Nitric Oxide*, vol. 24 (2011), pp. 66-76.

Krishnatry, A.S., Kamei, T., Wang, H., Qu, J., & Fung, H.L. "Identification of nitroglycerin induced cysteine modifications of pro-matrix metalloproteinase-9." *Rapid Communications in Mass Spectrometry*, June 1, 2011.

Shin, S., Fung, S.M., Mohan, S., & Fung, H.L. "Simultaneous bioanalysis of L-arginine, L-citrulline and dimethylarginines by LC-MS/MS." *Journal of Chromatography B*, vol. 879 (2011), pp. 467-74.

Jusko, William J.

Sukumaran, S., Jusko, W.J., Dubois, D.C., & Almon, R.R. "Light/dark oscillations in the lung transcriptome: implications for lung homeostasis, repair, metabolism, disease and drug action." *J Appl Physiol*, vol. 110 (2011), pp. 1732-1747.

Nie, J., Bai, B., Sukumaran, S., Jusko, W.J., Dubois, D.C., & Almon, R.R. "Differential Muscle Gene Expression as a Function of Disease Progression in Goto-Kakizaki Diabetic Rats." *Molecular and Cellular Endocrinology*, vol. 338 (2011), pp. 10-17.

Fang, J., Dubois, D.C., He, Y., Almon, R.R., & Jusko, W.J. "Dynamic modeling of methylprednisolone effects on body weight and glucose regulation in rats." *J Pharmacokinetic Pharmacodynamic*, vol. 38 (2011), pp. 293-316.

Sukumaran, S., Jusko, W.J., Dubois, D.C., & Almon, R.R. "Mechanistic modeling of the effects of glucocorticoids and circadian rhythms on adipokine expression." *J. Pharmacol. Exp. Ther.*, vol. 337 (2011), pp. 734-746.

Lon, H., Liu, D., Zhang, Q., Dubois, D.C., Almon, R.R., & Jusko, W.J. "Pharmacokinetic-Pharmacodynamic Disease Progression Model for Effect of Etanercept in Lewis Rats with Collagen-Induced Arthritis." *Pharmaceutical Research*, vol. 28 (2011), pp. 1622-1630.

Bai, J.P.F., Bell, R., Buckman, S., Burckart, G.J., Eichler, H., Fang, K.C., Goodsaid, F.M., Jusko, W.J., Lesko, L.L., Meibohm, B., Patterson, S.D., Puig, O., Smerage, J.B., Snider, B.J., Wagner, J.A., Wang, J., Walton, M.K., & Weiner, R. "Translational Biomarkers: From Preclinical to Clinical, A Report of 2009 AAPS/ACCP Biomarker Workshop." *The AAPS J.*, vol. 13 (2011), pp. 274-283.

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Special Honors for Faculty and Staff

Sathy Balu-Iyer, associate professor, recipient 2011 Exceptional Scholar Teaching Innovation Award, University at Buffalo, and was also awarded the 2011 Inventor of the Year award, Niagara Frontier Intellectual Property Law Association.

Peter Brody, clinical assistant professor, recipient 2011 AACP Wal-Mart Scholar Program, American Association of Colleges of Pharmacy.

Karl Fiebelkorn, clinical associate professor, recipient 2011 SoPPS Teacher of the Year Finalist award, elected as the Region I Councilor for Rho Chi Academic Honor Society, recipient of the W. Bruce Philip Certificate of Commendation, Kappa Psi Pharmaceutical Fraternity and recipient 2011 Jack Nicolais Award, Pharmacists Society of the State of New York.



Karl Fiebelkorn, William Prescott, Nicholas Norgard

Ho Leung Fung, professor, recipient 2011 Distinguished Service Award, American Association of Pharmaceutical Scientists.

Irene Hong, clinical assistant professor, recipient of the SoPPS Lambda Kappa Sigma Fraternity, 2011 Outstanding Female Pharmacist Award.

William Jusko, professor, recipient 2011 "Leadership Award" from the American Society of Pharmacometrics, elected as Chairperson, National Institute of Health Special Review Com-

mittee for Glue Grants and was awarded the 2011 American Conference on Pharmacometrics Leadership Award.

Cindy Konovitz, assistant dean for advisement, recipient 2011 SoPPS Student National Pharmacists Association Advisor Excellence Award.

Donald Mager, associate professor, elected to Review Panel, National Institute of Health, Special Emphasis Panel (EMNR K 55).

Candy Morris, assistant dean for resources management, recipient 2011 University at Buffalo Professional Staff Senate Outstanding Service Award.

Marilyn Morris, professor, recipient 2011 Service Award, from the Pharmacokinetics, Pharmacodynamics and Drug Metabolism Section, American Association of Pharmaceutical Scientists.

Jonathan Navratil, programmer/analyst, recipient 2011 SoPPS Staff Member of the Year Award.

Nicholas Norgard, clinical assistant professor, recipient 2011 SoPPS Teacher of the Year Finalist Award.

Gina Prescott, clinical assistant professor, recipient 2011 Specialist Teaching Award, UB Department of Family Medicine, Erie County Medical Center.

William Prescott, clinical assistant professor, recipient 2011 SoPPS Teacher of the Year. Western and recipient 2011 Central New York Residency Preceptor of the Year Award.

Alfred Reiman, clinical assistant professor, recipient 2011 Alumni of the Year, SoPPS Lambda Kappa Sigma, Alpha Theta Chapter.



Christine Stumm

Christine Stumm, assistant director of admissions, appointed Vice President of Communications for New York State Association for College Admission Counseling.

Thanks to you...

"IT HAS ALLOWED ME TIME TO FOCUS on academics and professional development rather than my finances."

Elizabeth Lakota

The UB pharmacy school had a remarkable year of honoring our history as we also anticipate the future in a new location.

The school celebrated its 125th anniversary in 2011, with a full slate of events, including a gala dinner, guest speaker presentations and tours of our new home, John and Editha Kapoor Hall on the UB South Campus, which will open for classes in Fall 2012. The school — founded in 1886 and considered the birthplace of academic biopharmaceutics, pharmacokinetics and pharmacodynamics—is a nationally ranked leader in academic health care.

Donations during 2010-11 were the highest ever, with a total of \$4.3 million collected, 20 percent more than the previous year. A total of 63 new donors gave to the school, and 187 donors increased the amount they had given the previous year. The school had the third highest alumni participation rate of all UB schools, and our Willis G. Gregory Society welcomed eight new members, bringing to 83 its total membership.

These statistics reflect a growing commitment from alumni, donors and friends to realizing Dean Anderson's vision of providing students the very best academic experience. Your ongoing generosity helps us attract top students and world-class faculty. Most important is the consistency with which our donors give to the pharmacy school, year in and year out, that helps us build a community of discovery and care. We thank you for your continual investment, which allows us to succeed in our aspiration to train and nurture the pharmacists, clinicians, pharmaceutical scientists and community leaders of tomorrow.



Gladys Richmond Emerson and Pamela Emerson '52

A dozen of UB pharmacy students who never met the late Pamela Emerson '52 feel closer to her today.

They comprise the first group of recipients of Pamela M. Emerson Scholarships, which she established to pay tribute to her mother, Gladys Richmond Emerson.

Meagan Stringham, a fourth-year PharmD candidate, appreciates the scholarship because her busy academic schedule — "this year requires at least a 40-hour-per-week commitment at a rotation site for 36 weeks"—plus homework leaves little time for earning money at an outside job.

The Corfu, NY, native chose to study pharmacy when she realized it "is a career that would allow me to help people every day, and give me the opportunity to be an advocate for them." Stringham hopes to work as a consultant pharmacist in a nursing home.

Second-year student Katherine Dixon is "so thankful" for the scholarship.

"Through working and with this scholarship, I was able to take out half of the loans that I did last semester. That is such a relief," Dixon said.

"PAMELA WOULD ALWAYS TRY TO FIND THE BEST CHOICES, calling the doctor if necessary, but also taking into consideration the customers' financial situation. She was proactive in health care costs way ahead of her time."

Donor's gift benefits a dozen grateful pharmacy students

I hope one day, I can give back to this school that has given so much to me."

A native of Rochester, NY, Dixon would like to work "as a clinical pharmacist in a hospital."

Elizabeth Lakota, Class of 2014, called the Emerson Scholarship "a huge help financially."

"It has allowed me time to focus on academics and professional development rather than my finances," said Lakota, who plans to pursue postgraduate training in the field of endocrinology.

Fourth-year student Katherine Spence, who would like to teach pharmacy, said the scholarship "has helped me immensely. I am paying my own way through school and am not able to work during some of my rotations, so I was expecting money to be tight. This scholarship has given me peace of mind so that I can focus on my rotational studies with less stress."

Deanna Driscoll, a third-year student, said she "can truly appreciate how much UB and the pharmacy profession meant to Pamela Emerson as she founded the scholarship fund."

Driscoll, who is APhA-ASP vice president, works at a retail pharmacy in Tonawanda, her hometown, and chose UB for "its reputation for excellence in pharmacy" and its location.

"Staying close to home continues to give me the support of friends and family," said Driscoll, who wants to be a community

pharmacist who participates in medication therapy management.

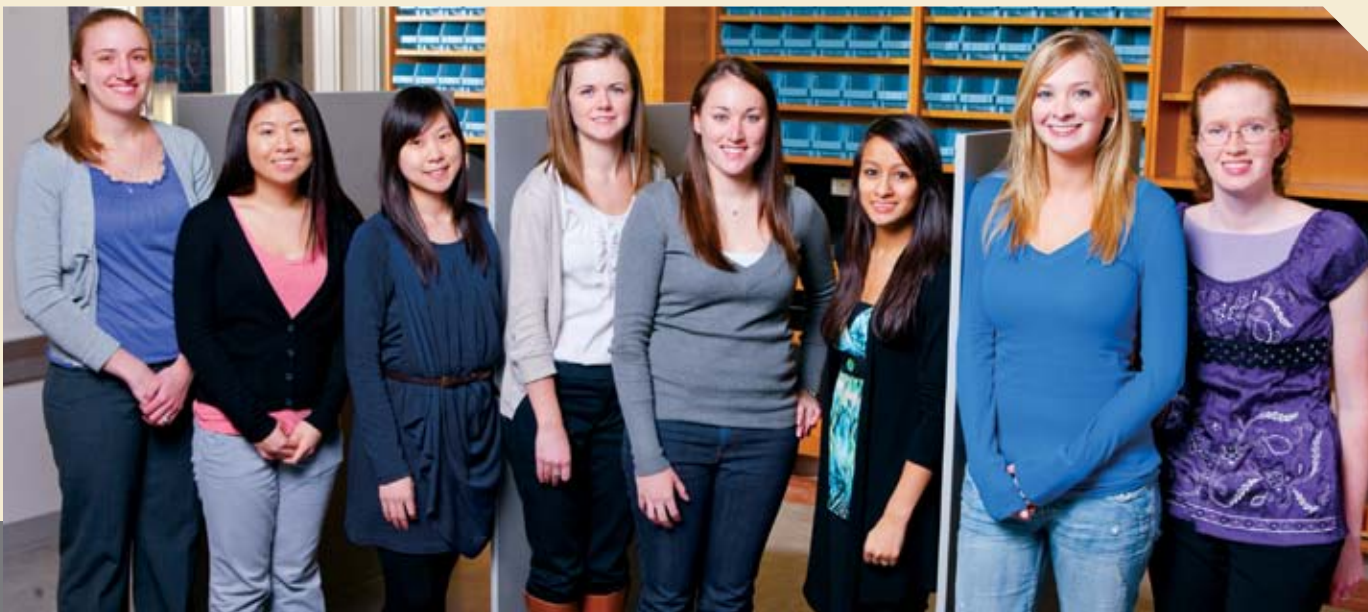
The students' comments echo the life and career of Emerson, who intended to prevent students from struggling financially as she had, according to Anna Mauri '79.

Pam was a caring person both with family and career. She lived with her parents and took great care of them," Mauri said. "She had to work to pay her own way at a time when parents didn't expect women to be the breadwinners for their families. She knew the value of hard work."

Mauri and her sister, Patty Bager '77, worked at Jay's Drug Store in Lockport with Emerson, who was a pharmacist there for over 60 years. Mauri recalled that the four store owners—J.J., Sam, Frank and Tom Marotta—were supportive of the three women. All but Tom had graduated from UB pharmacy.

After Jay's closed, Emerson worked at Rite Aid in Lockport and McCloud's pharmacy in Niagara Falls, and as a consultant to two area nursing homes before her death in 2010. Mauri said she personified what it means to be a successful community pharmacist.

"Pamela was always conscious of customer health care needs and of the cost," Mauri said. "She would always try to find the best choices, calling the doctor if necessary, but also taking into consideration the customers' financial situation. She was proactive in health care costs way ahead of her time."



Eight of 12 Emerson Scholarship recipients outside the new Model Pharmacy in Kapoor Hall, from left, Meagan Stringham, Stephanie Li, April Huang, Elizabeth Lakota, Katherine Dixon, Srijana Jonche, Deanna Driscoll and Amanda Paxton. Not pictured, Uzoamaka Atuegwu, Katherine Olson, Hannah Park and Katherine Spence.

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Loyalty Club
Irwin Brock

Class of 1939

Loyalty Club
Harold Millar

Class of 1940

Willis G. Gregory Society
Ralph Behling

Class of 1945

Loyalty Club
Gertrude Cyran

Class of 1947

Loyalty Club
Marvin Korus
Donald Peebles

Class of 1948

Loyalty Club
Richard Lazerson

Class of 1949

Loyalty Club
Raymond Griffin

Class of 1950

Mortar and Pestle Club
Sylvia Giordano

Class of 1951

Mortar and Pestle Club
Florence McMahon
Century Club
Philip Ruslink
Loyalty Club
John Hackney Jr.

Class of 1952

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Pamela Maude Emerson
Milner Forster
Gerald Hooley
Joseph Serman
Mortar and Pestle Club
Edward Frank Jr.
Century Club
Peter Shakarjian
Loyalty Club
Marian Barnes
Seth Siskin
Walter Stanton

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Harold Ertman

Joseph Mroczynski
Alton Tower
Walter Way

Century Club

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Loyalty Club
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Melville Follett Jr.
Frank Messore
Henry Raczka

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Loyalty Club
Roberta Haney

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Elaine Boland
Sherwood Deutsch
Mortar and Pestle Club
Irving Sultz
Loyalty Club
Rocco Ballacchino
Carolyn Rein Corretore
Marlyn Di Capua

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Ronald Isaacs
Loyalty Club
Anne Allen
Joseph Dicesare
Herbert Fechter
Mary LaCroix
Jerry Ross
Frances Scheer

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Century Club
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Robert Ravin
Harry Shifton
Loyalty Club
John Krawiec
John McFarland

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Marlene Kieta Schmitt
Loyalty Club
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Mary Ann Janiga Krawiec
Kenneth Kushner

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Jan Madejski
Robert Miller
Paul Myka
Mark Rosenfeld

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JoAnn Giambelluca Skaros
James Tyson
Loyalty Club
David Hammond

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Century Club
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Maria Bleicher
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Murray Notebaert
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Barbara Darstein
Nancy Thompson

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Loyalty Club
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Janice McGuigan

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William Ackley
Mortar and Pestle Club
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Century Club
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Loyalty Club
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Century Club
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Loyalty Club
Robert Giaquinto

Class of 1964

Century Club
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Vijay Jain
Loyalty Club
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Ira Schneider

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Norrine McMillan
Loyalty Club
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Wayne Conrad
Robert Hammond
David Sperling

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Century Club
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Century Club
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Charles Bainbridge
Donald Goelz
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Judith Kocher
Gerald Mulcahy

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Phil Monacelli
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Janet Whalen
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Albert Munson
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Ralph Wynn
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Century Club
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Ralph Stephani

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Loyalty Club
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Century Club
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Brian Huckle
Paul Lipinoga

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 Gerald Senese Sr.
 Robert Wagner

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 Thomas Nealon
 Jerald Passer
 Beth Resman-Targoff
 Peter Wepplo

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 Gary Senf

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 Elaine Phelan
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 Linda Zientek

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 Chung David Chu
 Carol Gloff
 Wai-Yung Florence Ho
 Henry Hu
 Lawrence Kwok
 Ken Yee

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 Svein Oie

Mortar and Pestle Club

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 Karen Harms
 Jeanne Lill
 William Youngs

Century Club

Barbara Jean Edwards
 Henry Hon
 James Mack
 Danny Dahying Shen
 David Smith
 Marcia Stahl
 Tarik Veysoğlu

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 Pauline Sit

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 Karen Vitacolonna Falk
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Loyalty Club

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Century Club

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 Wing Lun
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 Doreen Heppert
 Jacob John Utzig

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 Neil Poppendeck

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 Mary Nufryk
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 Dave Lutomski
 Kathryn Lyons
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 Thomas Streeter

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 Peter Illig
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Stanley Piskorowski

Michael Shakarjian
 Sandra Sinatra Schifano
 Janice Wojtowicz
 Sandra Zukoski

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 Gerard A. Palumbo
 Margaret Szalkowski
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Century Club

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 Joseph Geraci Jr.
 Eugene Hughto Jr.
 Ronald Schifano
 Karl Williams

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 Gregory Kriel
 Joseph Nasca
 Ellen Rosenberg
 Mary Priscilla Sedgwick

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 Margaret McGlynn

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 Karl Metzger
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Century Club

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 Susan Schwalenstocker
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 M. Guill Wientjes

Century Club

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 Lynn Katz
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 Sarah Ronchetti
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Pamela Jadoch
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Sandra Hellwig
Melissa Micciche**Loyalty Club**Mary Deacon
David Feldman
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James Tobolski
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Craig Straley**Loyalty Club**Michelle Callahan
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Century ClubLouis Frescura
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Nadine Johnson
Christine Knab
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Angela Farrell
Lynn Katz**Class of 1992****Willis G. Gregory Society**

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Annie Rodriguez**Century Club**Kevin Jinks
Kevin Sowinski**Loyalty Club**Carol Cole
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Patrick Meek
Joelle Pawlicki
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Debra Ley Porter
Gerald Wemple**Century Club**Alison Louise Conroy
Susan Hoynowski**Loyalty Club**Steven Abel
Anita Dwaileebe
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Janice Wojtowicz**Class of 1995****Mortar and Pestle Club**Holly Kimko
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Joseph Sidoti**Century Club**

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Century Club

Julie Joyce

Loyalty ClubDaniel Cole
David Czachorowski
Timothy Fahrenholz
Susan LaQue
Mark LaQue
Senliang Pan
Michele Spence
Jeanine Thompson
Doanh Tran
Stephen Dean Warren**Class of 1997****Mortar and Pestle Club**

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Century ClubMary Bellanti
Kevin Garey
Peter Gunthner**Loyalty Club**Amy Yu
Nammi Yu**Class of 1998****Willis G. Gregory Society**Yu-Nien Tom Sun
Elizabeth Theophilos**Mortar and Pestle Club**

Alfred Reiman

Century Club

Roxanne Fratezi

Loyalty ClubLisa Goho
Patricia Heary

Brian Kimpel

Michael Koncilja

Jeffrey Olek

John Gary Reed

Julie Taylor

Bhavesh Thakrar

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Sandra King
Richard Suba**Loyalty Club**Megan Gruppe
Richard Norris**Class of 2000****Century Club**Stanley Au
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Elizabeth Miles
Joseph Miles
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Joanne Greenia

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Oluyemi Olawaiye

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Dawn Marie Kubicki
Erin Slazak
Daniel Weeks**Class of 2005****Mortar and Pestle Club**

Lynn Carlson

Century ClubSam Michael Milazzo
Mark Wrobel**Loyalty Club**SoSum Chack
Lori Cornue
Leigh Ann Reid
Roseane Santos
Doanh Tran
Kari Wilkens**Class of 2006****Mortar and Pestle Club**

Alicia Burger

Loyalty ClubJulie Hoy
Matthew Wojdyla**Class of 2007****Willis G. Gregory Society**

Jared Reles

Mortar and Pestle Club

Richard Lin

Century Club

Patrick Comerford Jr.

Loyalty ClubCheryl Haag
Rebecca Rogers
Tyler Smith-Strutz
Nathaniel Turck**Loyalty Club**Robert Adams
Kathleen Connolly
Alison Huffman
Olanrewaju Okusanya
Navind Oodit
Ethan Wong**Class of 2008****Willis G. Gregory Society**

Amanda Poworoznek

Mortar and Pestle ClubDaniel Corcoran
Devon Marks**Century Club**

Jennifer Polito

Loyalty ClubJoette Bumbalo
Raymond Chan
Kaela Keluskar

HONORARIUM & MEMORIAL GIFTS

In Memory of June Farinech Bracker '60

Phyllis Betzler '60
 Maria Bleicher '60
 Myra Boyer '68
 Angela Coniglio '60
 Joan Hector '59

Roseanne Kalaba '63
 John Krawiec '57 and Mary Ann Janiga
 Krawiec '58
 Robert and Patricia Lavette
 Jan '59 and Rose Mary Madejski '59

Margaret Quinn '60
 Michael '60 and Mary Salotti
 JoAnn Giambelluca Skaros '59
 Sandra Stanbridge '60

In Memory of Lori Esch '97

Bernard '61 and Coraline Esch

In Memory of Frank Marotta '44

John Frischholz '73
 Simon Glavinic and Rose Marotta-Glavinic

In Memory of Joseph Sarnowski '21

Bruce and Elaine Boland '55

CORPORATIONS, FOUNDATIONS AND FRIENDS

Willis G. Gregory Society

American Association of Colleges of
 Pharmacy
 American Foundation for Pharmaceuti-
 cal Education
 Amgen Foundation
 Amgen, Inc.
 Wayne and Lorraine Anderson
 Sathy and Vandana Balu-Iyer
 Thomas and Maria Bardos
 Big Data Fast LLC
 Marlene Bickel
 Bruce Boland
 Daniel Brazeau
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 Business Software Solutions
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 Cognigen Corporation
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 CVS Corporation
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 Raymond Dannenhoffer
 JoAnn Donn
 Eli Lilly and Company Foundation
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 Gilead Sciences Foundation
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 GPI, Inc.
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 George and Barbara Hole
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 Rozanne Myka
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 National Multiple Sclerosis Society
 Netezza Corporation
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 Pharmacists' Association of Western
 New York
 Rite Aid Corporation
 Donna Rocci
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 J. Rutowski & Sons, Inc.
 Schering-Plough Corporation
 Shire US, Inc.
 Simcyp Limited
 David and Samantha Stagney
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 Mary Taylor
 Tops Markets, LLC
 Walgreens
 Wal-Mart Stores, Inc.

Waters Corporation
 Elizabeth Way
 William Wallace and Leigh Yates
1886 Club
 Anthony and Camille Passarella
 The School of Pharmacy Student As-
 sociation
Mortar and Pestle Club
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 Akron Pharmacy/Town Country Gifts
 The Ellicottville Pharmacy
 Holland Pharmacy, Inc.
 Cindy Konovitz
 The Merck Company Foundation
 Moog, Inc.
 Mylan Pharmaceuticals, Inc.
 Pfizer Foundation
 Vicki Rink
Century Club
 Akzo Nobel Inc.
 Rebecca Brierley
 Michael Cubera
 Lois J. D'Ambrosio
 Simun Glavinic and Rose Marotta-
 Glavinic
 GlaxoSmithKline Foundation
 Eric Hellwig
 Robert and Patricia Lavette
 The Procter & Gamble Fund
 David Schultz and Margaret Walsh
 Schultz
 David Soda
Loyalty Club
 Abbott Laboratories Fund
 Jennifer Berryman
 Kenneth Dipasquale
 Dennis and Diane Fisher
 Daniel and Nancy Koester
 Hong Li
 Richard and Debra Pretorius
 Jason Thompson

Class of 2009

Willis G. Gregory Society

Alyssa Reles
 Liliana Yohonn

Century Club

Dapeng Cui
 Kristen Pregizer
 Michael Schifano
 Kathryn Seelman
 Shweta Urva

Loyalty Club

Tyler Dimenna
 Amy Hall
 Andrew Wohlrab

Class of 2010

Century Club

Saneel Kulkarni

Loyalty Club

Dechen Lama
 Miranda S. Minhas
 Siubun Tang

Class of 2011

Loyalty Club

Sarah Wightman

KEY:

Willis G. Gregory Society:

\$1,000 and above

1886 Club:

\$500 - \$999

Mortar and Pestle Club:

\$250 - \$499

Century Club:

\$100 - \$249

Loyalty Club:

Up to \$100

This report includes donors who made gifts and planned gift commitments between July 1, 2010 and June 30, 2011. Every effort has been made to ensure the accuracy of the information. In the event of an error or omission, please contact the SoPPS Development Office at (716) 645-3432 so that we may update our records.

Thomas Bardos
Allen Barnett
Ralph Behling '39,' 40
Thomas Blanchard '61
Daniel & Gayle Brazeau '89
Robert '53 & Nina Doran '53
Pamela Maude Emerson '52

Joseph Figlow '70
Edward '52 & Jean Frank '54
Carol Gloff '75
Joel Goodrich '59
Jan '59 & Rose Mary Madejski '59
Robert Miller '59
DeWitt Niles '62

Robert Ravin '57
Margaret Quinn '60
Irving Sultz '55
Ralph Vescio '55
Pierce Weinstein '39, '44

To learn more or to notify the school of a legacy gift that you have planned, please call the development office at (716) 645-3432 or visit our web site at pharmacy.buffalo.edu.

ENDOWED STUDENT SCHOLARSHIP AND FELLOWSHIP SUPPORT

AVERSANO-STROZZI SCHOLARSHIP FUND

Christina Hall
David Jacobs

JEANNINE BAUDA DEMUTH SCHOLARSHIP

Meghan Rowcliffe

ROBERT M. COOPER MEMORIAL AWARD

Uzoamaka Atuegwu
Yusouf Khan

CRIMALDI-MADEJSKI FAMILY SCHOLARSHIP FUND

Amy Wojciechowski

CVS SCHOLARSHIP FUND

Brianna Baron
Will Bossard
Tara Castleman
Kaila Evertts
Daniel Graves
Jonathan Hangey
Carolyn Hempel
Evelyn Nkeyasen
Sandy Poon

X. DAVE D'AMBROSIO SCHOLARSHIP FUND

Christina Hall

PAMELA EMERSON SCHOLARSHIP FUND

Uzoamaka Atuegwu
Katherine Dixon
Deanna Driscoll
April Huang
Srijana Jonchhe
Elizabeth Lakota
Stephanie Li
Katherine Olson
Hannah Park
Amanda Paxton
Katherine Spence
Meagan Stringham

LYLE A. GRAVES SCHOLARSHIP

Kaila Evertts
Alicia Harrison
Meghan Rowcliffe
Ashley Smith
Andrew Stivers

GILBERT J. KULICK SCHOLARSHIP

Ashley Smith

LORREN LARWOOD SCHOLARSHIP FUND

Susan Lo

FRANCIS & EDWARD MAYER SCHOLARSHIP

Yu Ching Tse
Hsin-Wei Fu
Jay Kang
An Vuong
Ruchuan Wang
Sarah Wightman

NATIONAL ASSOCIATION OF CHAIN DRUG STORES FOUNDATION SCHOLARSHIP

Daniel Benimoff
Caitlin Carpenter
Shannon Conway
Christina Manciocchi

CECIL & VIOLET NEWTON SCHOLARSHIP FUND

Josiane Abou-Jaoude
Matthew Agosti
Uzoamaka Atuegwu
Danielle Baldwin
Brianna Baron
Philip Basko
Daniel Benimoff
Karen Bernardi
Angela Borton
Amy Brightbill
Andrew Brown
Alexander Campos
Caitlin Carpenter
Kelly Chan

Cecil & Violet Newton Scholarship Fund (continued)

Alexander Chu
Benjamin Daigler
Michelle Davis
Kristen Della Penna
Christopher Diehl
Deanna Driscoll
Kelley Dunnigan
Dimitra Ekonomidis
Alexandr Fesyuk
Daniel Graves
Abigail Gregg
Jonathan Hangey
Ryan Hare
Alicia Harrison
Jenna Hendershot
Christina Hew
Devin Holden
Sarah Holmes
Johnny Hon
Christine Hou
Hao Huang
Meer Husain
David Kelsey
Yusouf Khan
Tiffany Kiblin
Michael Krajewski
Lisa Kurczewski
Eleanor Lai
Susan Lee
William Leung
Susan Lo
Christina Manciocchi
Nicholas Mayers
Calvin Meaney
Melissa Morano
Tracey Nagel
Stephanie Newman
Huy Van Nguyen
Evelyn Nkeyasen
Katherine Olson
Amanda Paxton
Robert Philipps
Allison Pitman
Gauri Rao

Cecil & Violet Newton Scholarship Fund (continued)

Gabrielle Riorden
Teresa Rizzzone-Ebel
Vanessa Schmouder
Mariam Shahabi
Charles Shearcraft
Christopher Sherrow
Alex Shen
Chen Shen
Christopher Solinger
Meagan Stringham
Deborah Targoff
Rebekah Tate
Cheong Wai Tsang
Amy Telesz
Cierra Treu
Evan Tong
Henry Uguala
Aleksy Ushkin
Julie Veneklas
Laura Vespi
Sarah Wightman
Amy Wojciechowski
Sylvia Wong
Jessica Wu
Amy Zhou

HENRY A. PANASCI SCHOLARSHIP FUND

Christopher Diehl
Carolyn Hempel
Kristina Marchese
Matthew Schnupp

COPEL & MAX RUBENSTEIN SCHOLARSHIP FUND

Andrew Stivers

WOMEN'S CLUB OF COLUMBIA COLLEGE SCHOLARSHIP FUND

Will Bossard
Tara Castleman
Michelle Davis
Deanna Driscoll
Matthew Schnupp
Christopher Solinger

UB SCHOOL OF PHARMACY AND PHARMACEUTICAL SCIENCES GOLF SCHOLARSHIPS

Samuel Aitken
Christopher Daly
Esther Huang
Sean Ordwat

UB SCHOOL OF PHARMACY AND PHARMACEUTICAL SCIENCES SCHOLARSHIP

Mohamed Ahmedin
Thang Bui
Shannon Conway
David Jacobs
Nicole Lozzi
Kristina Marchese
George Nimako

UB SCHOOL OF PHARMACY AND PHARMACEUTICAL SCIENCES ALUMNI ASSOCIATION SCHOLARSHIP

Amy Brightbill
Hsin-Wei Fu
Lisa Kurczewski
Brigette Nezami
Ashley Smith
Meagan Stringham

WALGREENS SCHOLARSHIP

Geraldene Agbasionwe

WALMART SCHOLARSHIP

Cierra Treu

Alum credits his UB pharmacy education for his business success

Alfonse Muto '83 knows the value of a great reputation.

After two years at an area community college, he chose to attend the UB School of Pharmacy and Pharmaceutical Sciences "because of its location and reputation. I was driven to become a pharmacist and open my own practice from the beginning," he said.

After graduation, he did just that, becoming the owner of Pine Pharmacy, with two locations—one in the Walker Center in Williamsville and the other in Niagara Falls.

Using what he learned at UB, he's built both into businesses with stellar reputations. Later joined by his son, Alfonse Muto, Jr., who graduated from the UB pharmacy school in

back and hopefully inspire others to do the same, as UB enters the 21st century as one of the most respected programs nationally.

A member of the Coordinated Care Network (CCN), Muto has been a loyal supporter of UB pharmacy through the years. He has been a member of the Willis G. Gregory Society since 2001 and Pine Pharmacy also has supported the Annual Student Scholarship Golf Tournament.

Through supporting the new learning center classroom, the solid reputation of Muto and his son, and their businesses, can only grow.

" I HAVE ALWAYS LOOKED FOR NICHEs and decided over 20 years ago that compounding could separate me from chain pharmacies."

2008, Muto ensured the success of the two stores by designing each to offer a unique set of services to its customers.

"I have always looked for niches and decided over 20 years ago that compounding could separate me from chain pharmacies, so I pursued it heavily," Muto said.

" I n the Williamsville store, where my son, Alfonse, works, we offer compounding only, with a strong emphasis on nutrition," Muto said. "My Niagara Falls store is retail, with a strong emphasis on home health care. We also offer other services involving nutrition and bio-identical hormone replacement, to name a few. "

Visitors to the Pine Pharmacy website, www.pinepharmacy.com, can learn more about these services and about the stores.

Muto recently donated \$125,000 to name the Pine Pharmacy Pharmaceutical Care Learning Center Classroom in Kapoor Hall, which will open this year as the new home of UB pharmacy.

Muto said he made the gift because he credits his business success to the education he received from UB pharmacy.

"I would not be where I am today if it weren't for my acceptance to and completion of the pharmacy program," Muto said. "My donation is a way for me and my family to give



Alfonse Muto, Jr '08 and Alfonse Muto '83

“THE COLLABORATION BETWEEN UB AND UZ is a unique example of the international research efforts being undertaken worldwide.”

New bioanalytical instrumentation updates international pharmacology training lab

Chiedza Maponga '88, director of the University of Zimbabwe (UZ) pharmacy program knows that he alone can't treat the hundreds of thousands of patients with hiv in his native country.

But he believes he can do it with help.

This year, help arrived in the form of four graduate students—three of them AIDS International Training and Research Program fellows—who traveled from Zimbabwe to the University at Buffalo to train in a collaborative program that prepares them to treat HIV/AIDS patients.

Maponga has spent the past decade in Zimbabwe and at UB training such students so they can join him in this critical effort. With approximately one in 10 people in Zimbabwe living with HIV, the country is in the midst of one of the harshest AIDS epidemics in the world.

But Maponga points to the fact that his homeland is the only African nation showing a downward trend in HIV cases in recent years: from a peak of 26.5 percent of the adult population being infected in 1997, the figure has dropped steadily, to 23.7 percent in 2001 and to 14.3 percent in 2010.

He gives partial credit for that drop to the International Center for HIV/AIDS Pharmacotherapy Research and Training (ICHAPRT) program that he and Gene D. Morse, '80, '83, associate director of UB's Center of Excellence and pharmacy professor, founded.

Maponga, a UB pharmacy graduate who returned to Africa to become the first clinical pharmacist in Zimbabwe, and Morse designed the program to produce clinical scientists focused on translational pharmacology and medication management for HIV patients in developing nations.

“Through the program, these professionals gain more knowledge in how best to prescribe antiretrovirals to HIV patients, which contributes to the patients remaining on HIV medications longer,” Morse said.

This year, the four Zimbabwean postgraduate fellows traveled to Buffalo to study the newest methods—and to learn on state-of-the-art instrumentation—thanks to a donation of equipment from Waters Corporation. Valued at \$450,000, the equipment—the second such gift from Waters— offers the fellows a rare chance to work with the latest technology used to treat HIV/AIDS.

Maponga and Morse are “tremendously grateful” to Waters for the donation and hope to someday outfit the UZ laboratories in a similar fashion.

Samuel Gavi, one of the four fellows, and a graduate of the UZ pharmacy program, has worked with Maponga since 2001. Gavi now works to develop methods that improve “long-term clinical management of HIV infection as well as associated AIDS-defining illnesses.”

Gavi said his research and travels have shown him that collaboration among countries, no matter how distant or disparate economically, is the best way to fight HIV/AIDS.

“The collaboration between UB and UZ is a unique example of the international research efforts being undertaken worldwide, with emphasis on building capacity through exchange of technology and experience,” he said. “We have come to realize that in spite of the technological gaps that exist, we have a lot of things in common and can therefore develop systems that can be useful in both worlds.”



(Left to right) Row 1: Gene Morse, Maud Farirai Nyamukapa, Takudzwa Mtisi, Primrose Jaravani
Row 2: Samuel Gavi, James Hakim (UZ professor of medicine and director of the clinical research center), Chiedza Maponga

Alumni Relations



The support of our alumni community has been invaluable in the various student events and outreach efforts that have contributed to the continued success of our school.

2010-11 ALUMNI ASSOCIATION ACTIVITIES

The first major alumni event held this year was our 2010 Reunion activities. A boat cruise on the Miss Buffalo with a tour of the Buffalo Harbor, Lake Erie and the Niagara River began our reunion activities. Our gala dinner dance at the newly constructed Embassy Suites, downtown concluded festivities for the classes of 1955, 1960, 1985 and 2000. Margaret Quinn '60 and Myra Boyer '60 gave heartwarming comments and reflections from their years at the school and how the education they and their classmates received prepared them for their career paths.

Each year, the Alumni Association bestows two awards, the Willis G. Gregory Memorial Award and the Orville C. Baxter Memorial Professional Practice Award. The Gregory Award, the association's premier award, bears the name of our 4th Dean and is given to an outstanding alumni pharmacist who

personifies the ideals of service, integrity and is a consummate pharmacy professional. The Baxter Award bears the name of a long standing faculty member and is given to an outstanding alumni pharmacist who demonstrates high ideals of professionalism and genuine care for patients. We were proud to recognize **John Rodgers '83 as our 2011 Willis G. Gregory Award recipient** and **Frank Heinrich '83 as our 2011 Orville C. Baxter Award recipient**. John and Frank were recognized for their meritorious contributions to the field of pharmacy at the school's 2011 Awards Ceremony.

The American Society of Health Systems Pharmacists mid-year meeting is the association's premier national outreach meeting. Our 2010 ASHP alumni reception was held in Anaheim, CA and over 100 alumni and guests attended. We remind all our alumni members who attend the ASHP mid-year meeting to look for the association's annual reception. It is a great way to reconnect with your alumni colleagues, faculty and students from the school!

One of the primary missions of the association is support of students. In 2011, the association organized a Farewell Celebration reception for the PharmD Graduates of the Class of 2011. This event was well attended and was a great success! Also in 2011, the association gave six \$500 'grants-in-aid' awards to needy PharmD students as well as recognized Samuel Aitken '11 with an award at the 2011 Commencement in recognition of his valuable contributions to the alumni association.

The alumni association values the support it gives to the school and students as well as the important role it plays in keeping our alumni informed and connected to each other and activities here at the school.



2011 awards ceremony, Frank Heinrich '83 and John Rodgers '83

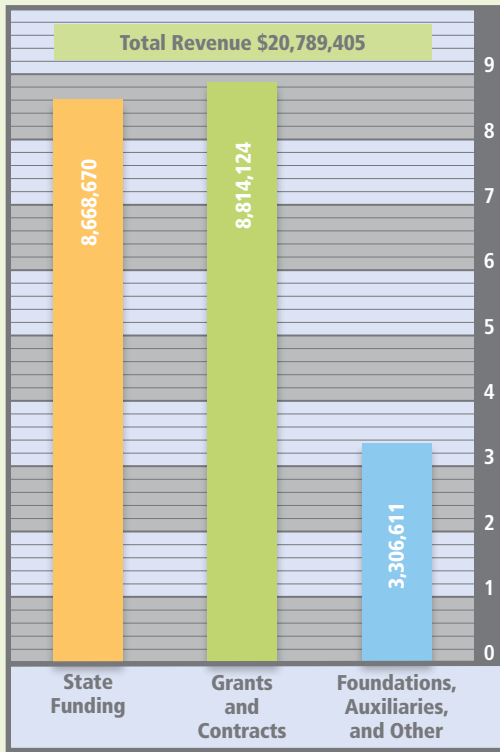


The Class of 1960

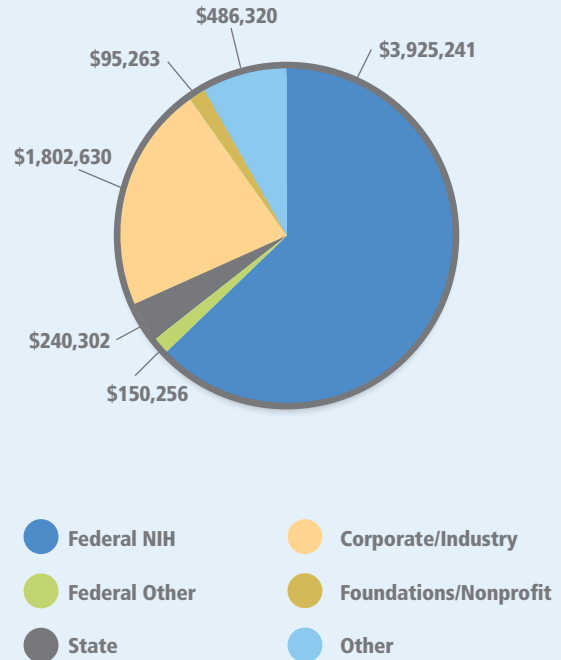
Financial Reports

The support to achieve our goals, the security to reach for the future, and the impetus for creativity are allowed through our well-positioned financial portfolio.

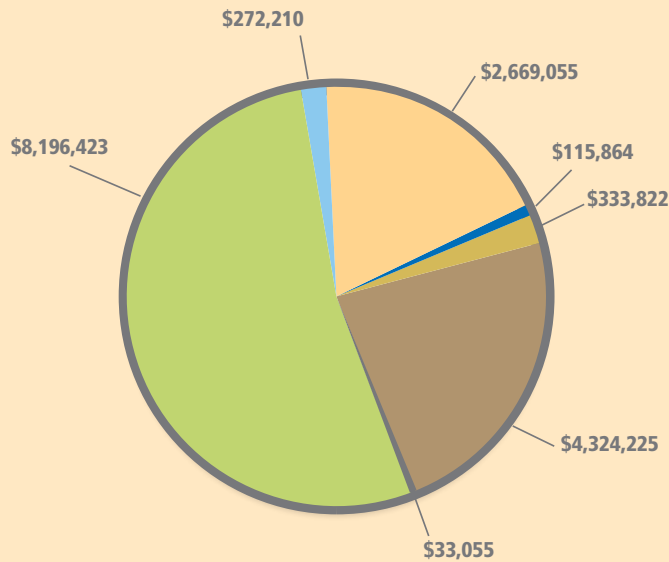
AMOUNT OF TOTAL SCHOOL REVENUE BY FUNDING SOURCE



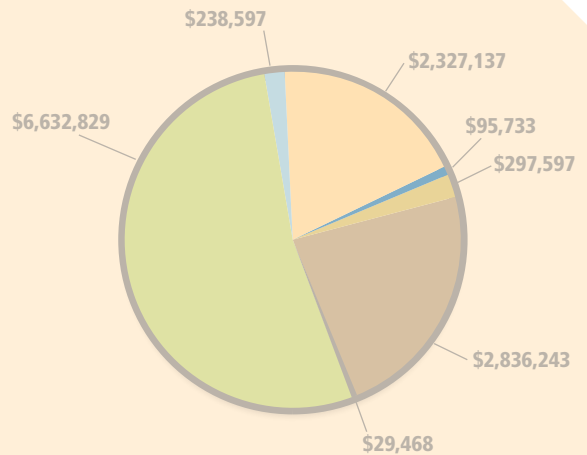
EXPENDITURES BY FUNDING SOURCE FOR RESEARCH AND TRAINING



ENDOWMENT MARKET VALUE JUNE 30, 2011 (\$15.9M TOTAL MARKET VALUE)



ENDOWMENT MARKET VALUE JUNE 30, 2010 (\$12.5M TOTAL MARKET VALUE)



- Scholarship
- Award
- Museum
- Special
- Lecture
- Department
- Dean

School-Wide Committees

Our school-wide committees give governance and oversight to our school. The structure, composition and charges of the school's standing committees are prescribed in the bylaws of the School of Pharmacy and Pharmaceutical Sciences.

Admissions Committee

Jennifer Hess (*Chair*) Javier Blanco, Fred Doloresco, Karl Fiebelkorn, Cindy Konovitz, (*ex officio*), William Prescott and Josh Sawyer

Support: Cynthia Acara, Christine Stumm and Mark Sauberan

Assessment Committee

Fred Doloresco (*Chair*) Jack Brown, Mei Jen Ho, Wojciech Krzyzanski, Mark Sauberan, Aiming Yu

Curriculum Committee

Patty Havard (*Chair*), Karl Fiebelkorn (*ex officio*), Cindy Konovitz (*ex officio*), Nicole Albanese, Peter Brody, Patricia Burch, Deborah Chiarella, Fred Doloresco, Ho Leung Fung, Donald Mager, William Prescott, Jun Qu, Erin Slazak, Robert Wahler, Joseph Sperber (P1), Julie Graham (P2), Heather Rodman (P3), Matthew Schnupp (P4)

Executive Committee

Wayne Anderson (*Chair*), Joseph Balthasar, Edward Bednarczyk, Kathleen Boje, Rebecca Brierley, Peter Brody, Karl Fiebelkorn, Patty Havard, Jennifer Hess, William Jusko, Cindy Konovitz, Candise Morris, Gene Morse, Leigh Yates

Safety Committee

Alfred Reiman (*Chair*), Vicki Rink, David Soda, Lee Zak

Student Academic Affairs Committee

Karl Fiebelkorn (*Chair*), Joseph Balthasar, Kathleen Boje, Nicole Paolini, William Prescott

Tenure and Promotion

Wayne Anderson (*ex officio*), William Jusko (*Co-Chair*), Eugene Morse (*Co-Chair*), Marilyn Morris, Robert Straubinger, Kathleen Tornatore

National Industrial Advisory Council

Wayne Anderson

Dean

UB School of Pharmacy and
Pharmaceutical Sciences

Mario Rocci, Jr., '76, '81

President, IDS Division

ICON Development Solutions, LLC

Allen Barnett, '65

President Emeritus

Kinex Pharmaceuticals, LLC

James Baxter, '84, '90

Senior Vice President Development

Boehringer Ingelheim
Pharmaceuticals, Inc.

Lisa Benincosa, '93

President, DMPK

Hoffman-LaRoche, Inc.

James Daly, '84, '85

Senior Vice President

Amgen, Inc.

Karl Donn, '79

Vice President, Drug Development

Parion Sciences

James Ermer, '83

*Senior Director, Clinical Pharmacology
& Pharmacokinetics*

Shire Pharmaceuticals

Ronald Evans, '69

President

MAPS 4 Biotech, Inc.

Pramod Gupta

Vice President, Quality &

Chief Scientific Officer

Coldstream Laboratories

Steven Hansel, '93

Senior Director

Pfizer, Inc.

George Lasezkay, '74, '78

Retired, Corporate Vice President,

Corporate Development

Allergan Pharmaceuticals, Inc.

Margaret McGlynn, '82

President and CEO

International AIDS Vaccine Initiative

Edward McNiff, '75, '76, '83

President

EFM Consulting, LLC

Richard Morrison, '77, '83

Executive Director

Merck Research Laboratories

David Panasci

President

DHP Consulting LLC

John Rodgers, '83

Executive Vice President and COO

Independent Health Association, Inc.

Daniel Salazar, '89

Vice President, Medicine and

Clinical Translation Pharmacology

DaiichiSankyo Pharma

Michael Taylor, '81

President and CEO

Ensemble Discovery Corporation

Avi Yacobi, '75

President

DOLE Pharma, LLC

Office of External Affairs
University at Buffalo
126 Cooke Hall
Buffalo, NY 14260-1200

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DEDICATION AND GRAND OPENING

John & Editha Kapoor Hall

We invite you to join us in celebrating the official dedication and grand opening of our new home, John and Editha Kapoor Hall, on the University's South (Main Street) Campus.

Thursday, September 27, 2012

Gerhard Levy Distinguished Lectureship in the
Pharmaceutical Sciences

- Afternoon: Lecture in Kapoor Hall
- Evening: Dinner Banquet

Registration will begin July 2012.

Questions/Assistance: Office of External Affairs:
p hm-alumni@buffalo.edu or 716-645-6965

Friday, September 28, 2012

John and Editha Kapoor Hall Dedication and
Grand Opening

- Morning/Afternoon: Dedication ceremonies, tours and other social activities
- Evening: Gala Dinner Dance at the historic Statler City, downtown Buffalo with special reunion activities for the milestone classes of 1957, 1962, 1987 and 2002.

