

# PITTPHARMACY

UNIVERSITY OF PITTSBURGH SCHOOL OF PHARMACY | FALL 2014



**BRINGING  
COHERENCE  
— TO —  
DISCOVERY**

*Creating leads  
for collaborators  
as they design  
their plans*



# PITTPHARMACY

UNIVERSITY OF PITTSBURGH SCHOOL OF PHARMACY | FALL 2014



## FEATURES

### EDUCATION SERIES

#### 12. Educating Tomorrow's Pharmacists

Second of a two-part series about PittPharmacy's approach to educating the next generation of pharmacist

#### 16. Cancer in the Crosshairs

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PittPharmacy students reach record number of local older residents.

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#### Inside Cover:

PittPharmacy Class of 2018 includes students ranging in age from 19 to 32 who come from 20 institutions and 14 states. Twenty-six students have degrees and 79 percent of the class is from the University of Pittsburgh.

The University of Pittsburgh, as an educational institution and as an employer, values equality of opportunity, human dignity, and racial/ethnic and cultural diversity. Accordingly, as fully explained in Policy 07-01-03, the University prohibits and will not engage in discrimination or harassment on the basis of race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, gender identity and expression, genetic information, disability, or status as a veteran. The University also prohibits and will not engage in retaliation against any person who makes a claim of discrimination or harassment or who provides information in such an investigation. Further, the University will continue to take affirmative steps to support and advance these values consistent with the University's mission. This policy applies to admissions, employment, and access to and treatment in University programs and activities\*. This is a commitment made by the University and is in accordance with federal, state, and/or local laws and regulations.

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*Dear Friends,*

Isn't it wonderful to see our vibrant Class of 2018 on the inside cover of Pitt Pharmacy? These P1 students have many reasons to smile, including the fact that the doors of the pharmacy world and potential career niches have been opened to them. They are already immersed in learning to interact with people in professional settings. They are not only taking biochemistry and anatomy and physiology, they also are taking courses such as the Emerging Professional and Profession of Pharmacy, which facilitate their efforts to develop and describe their professional visions of their future selves. They already are planning ways to personalize their educational paths to explore opportunities for matching their unique talents and interests with pharmacy careers. Pharmacy school was definitely not like this when I and most of us were students.

The environments in which we lived and worked were different, too. Think of some of the words that we use to describe the research in our School of Pharmacy. Phrases such as “cloud computing” (Xie, p.#20), “automated image analysis” (Johnston, p. 17-18), and “three-dimensional tissue-engineered breast tumor model” (Sant, p. 20) have only come into being within the past decade.

Because the environment today is changing so rapidly, what we do as educators and researchers has been changing, too. We continually are evolving our learning environment to prepare our students to thrive in a complex health care system. We are empowering them to manage change and identify opportunities to leverage technology for better patient outcomes.

Stay connected to your School of Pharmacy to help us ensure our graduates are prepared for extraordinary careers. We value your input and appreciate your support of the School, our science, and our profession.

Hail to Pitt!

Patricia D. Kroboth, Dean

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### SCHOOL OF PHARMACY LEADERSHIP

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# Awards & Accolades

FACULTY, STUDENTS, AND ALUMNI



William D.  
Thompson Jr.  
BS '62

## Thompson Receives Lifetime Achievement Award

On June 9, distinguished alumnus and 1962 PittPharmacy graduate **Bill Thompson Jr.** received the Blair County Chamber of Commerce Lifetime Achievement Award for Business Excellence. Held at the Casino at Lakemont Park, the award presentation is designed to call attention to the importance of outstanding achievement within the business community. Thompson always has believed he had an obligation to give back to the community, especially to hard-working students in pharmacy programs at Pitt. Each year he provides a scholarship to a Blair County student attending PittPharmacy.

## Kreckel NCPA Preceptor of the Year

**Pete Kreckel**, BSPHR '81, was awarded the National Community Pharmacists Association (NCPA) Preceptor of the Year Award in Austin, Texas, in October 2014.

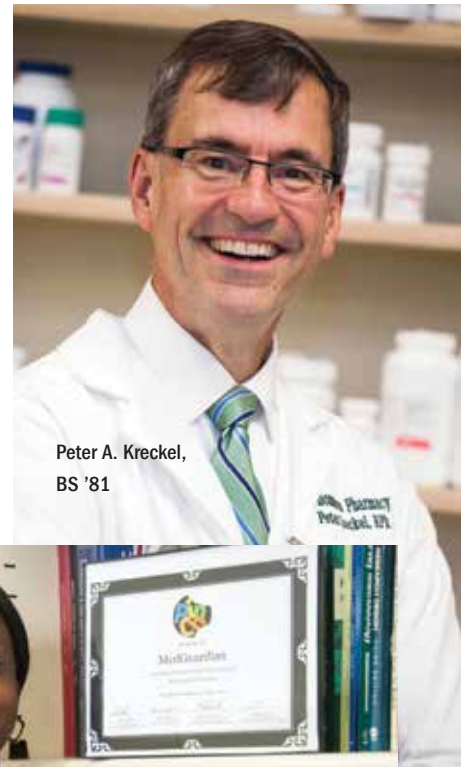
This award honors a pharmacist who has made a significant contribution to the education of pharmacy students as a preceptor in a community practice setting.

"In 2008 I began working for Thompson Pharmacy in Altoona, Pa. At my initial interview, with Bill Thompson, I expressed interest in developing a rural pharmacy rotation. My wife also agreed to house students at our home, free of charge, for them to participate in this program. Up until my employment with Thompson Pharmacy, I had precepted two students. By the end of 2014, the rural pharmacy rotation

will have hosted 32 pharmacy school students in a retail setting at Thompson Pharmacy on Broad Avenue, a 1,200 square foot neighborhood retail pharmacy that has been a drug store since 1932."

## PInCh Award to PittPharmacy Faculty Team Member

Assistant Professor **Olufunmilola K. Odukoya**, BPharm, PhD, is a winning team member in the inaugural Pitt Innovation Challenge (PInCh) sponsored by the University of Pittsburgh Clinical and Translational Science Institute, Office of the Provost, and Innovation Institute. Odukoya's other team members are James Kaus (fourth year Pitt medical student), Jim Kaus, and urs Muller. The purpose of PInCh is to bring together the expertise of faculty and members of the community to develop health care innovations that help solve health-related problems through patient engagement. PInCh's inaugural question was: How do we empower individuals to take control of their own health



Peter A. Kreckel,  
BS '81



Olufunmilola  
K. Odukoya

outcomes? The team was awarded one of the three \$25,000 awards on May 19, 2014, to pilot test a technology innovation called MedGuardian. MedGuardian is a user-friendly prescription notification system that enables patients and their caregivers more accurate tracking of medication compliance and adherence to medication regimen. It is an automated prescription notification system designed to improve patient adherence to medication regimens and potentially will allow individuals in the community and their health care providers to better monitor medication compliance in realtime.

### PittPharmacy Student Recognized in National Patient Counseling Competition

PittPharmacy student **Adrienne Jantzi**, (Class of 2015), was recognized as one of the top 10 finalists in this year's National Patient Counseling Competition at the recent APhA meeting in Orlando, Fla. Jantzi won the local competition at the School of Pharmacy and advanced to the national competition where she competed against other students from across the country for a spot in the finals.

In this competition, students were evaluated on a counseling session where they selected a prescription at random and were asked to counsel the patient on safe and effective drug use. Jantzi was recognized on stage at the APhA-ASP Awards Ceremony as one of the top 10 contestants in the competition.



Cara Mazzarisi



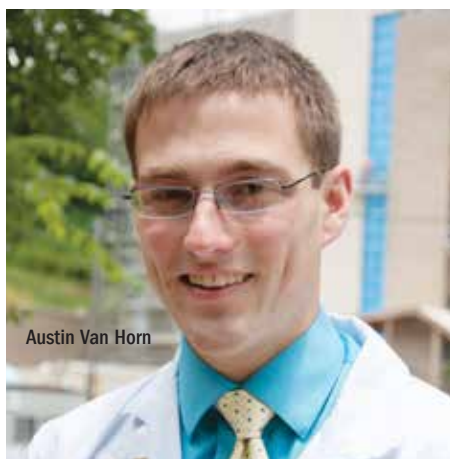
Neal J. Benedict



Adrienne Jantzi



Anna Bondar



Austin Van Horn

### Benedict Chosen AACP Innovator

Associate Professor **Neal Benedict**, PharmD, was chosen as one of three national winners of the AACP Innovations in Teaching Award. A presentation of the innovation was made during the 2014 AACP Annual Meeting at the Innovations in Teaching special session. Benedict also was recognized as the 2014 Stanford I. Cohen Teacher of the Year Awardee voted by the graduating class of 2014 for exceptional dedication, knowledge, and teaching skills.

the current and future health needs of the public by providing migrant funds to implement a Healthy People 2020 Leading Health Indicators project within a student's community or at their academic institution. Since 2002, more than 500 students from more than 160 academic institutions have become Paul Ambrose Scholars.

### Mazzarisi Recognized as Paul Ambrose Scholar

PittPharmacy student **Cara Mazzarisi** (Class of 2015) was selected as a 2014–15 Paul Ambrose Scholar. The Paul Ambrose Scholars Program prepares public health and clinical health professions students to address population health challenges at the national and community level. This program seeks to meet

### Bondar and VanHorn Newest Schweitzer Fellows

The Albert Schweitzer Fellowship has selected its class of 2014–15 Pittsburgh Fellows and two students at University of Pittsburgh School of Pharmacy, **Anna Bondar** and **Austin Van Horn**, have been selected.

Bondar, working at Birmingham Clinic on the South Side, proposes to assist uninsured and underinsured refugee and immigrant patients with information about procuring medication (continued on page 6)

# PITTPHARMACY STUDENTS REACH RECORD NUMBER OF LOCAL OLDER RESIDENTS

The Allegheny County Family Services of Western Pennsylvania presented Dean Patricia D. Kroboth with an award in recognition of PittPharmacy students' role in reaching a record number of Allegheny County residents—more than 15,000—this year. Through the APPRISE program, students guide individuals in gaining access to health care and prescription drug coverage.

Since 2008, more than 100 first- and fourth-year PharmD students have interned at APPRISE under the preceptorship of Director William McKendree. At this experiential learning site, students receive in-depth knowledge and training and then work with people, primarily older adults, assisting them in enrolling in Medicare, Medicaid, and prescription drug plans including Medicare Part D and PACE.

PittPharmacy student Daniela Policchio delivered an eloquent statement detailing the value of her experience at APPRISE as a first year student pharmacist. Kroboth accepted the award at a dinner held at the University Club on June 18, 2014. Also attending the dinner were Associate Dean for Education Susan Meyer, and Scott Drab, James Pschirer, Sharon Connor, and Lauren Jonkman, as well as a number of P2 and P4 students.

# LEAD → ING THE WAY

Students in grey T-shirts: Second picture: Bottom row from left to right; Molly Wilson, Jose Neary, Pam Lyons, Evan Gombo. Top line left to right: Samantha Holliday, Kelsey Barclay, Paul Bowers, Lara Siminerio, and Emily Mallit

White Coats: Top row from left to right: Katelyn Emhoff, Leah Williams, Lauren Cirrincione, Nancy Ng, Kim Ulshafer, Mark Zielinski, Trey Draude. Second row left to right; Andrew Nguyen, Reina Fink, Kent Wang, Carlo Iasella, Kyleigh Lewis



Joshua  
ThorpeOsama  
Alshogran

ication at discounted prices through patient assistance programs.

Austin Van Horn, working with patients from Matilda Theiss in the Hill District, aims to improve patients' transition from the hospital by assisting them in managing complex conditions to maintain health. Austin also will work with other pharmacy students to help patients with follow-up care, medication regimes, and discharge plans.

These students will spend the next year learning to address the social factors that impact health effectively, and developing lifelong leadership skills. In doing so, they will follow the example set by famed physician-humanitarian Albert Schweitzer, for whom their fellowship is named.

### Alshogran Selected ASN Kidney STARS Program

PittPharmacy PhD candidate **Osama Alshogran** has been selected to participate in the STARS program at the American Society of Nephrology (ASN) Kidney Week 2014 Annual Meeting, November, in Philadelphia, Pa.

Alshogran's two abstracts also have been chosen for poster presentation in the upcoming ASN meeting. The abstract titles are: *1. Effect of Experimental Kidney Disease on the Functional Expression of Hepatic Reductases* *2. Effect of End Stage Renal Disease on the Expression and Function of Hepatic Reductase Drug Metabolizing Enzymes.*

### Lifetime Achievement Award for Civello

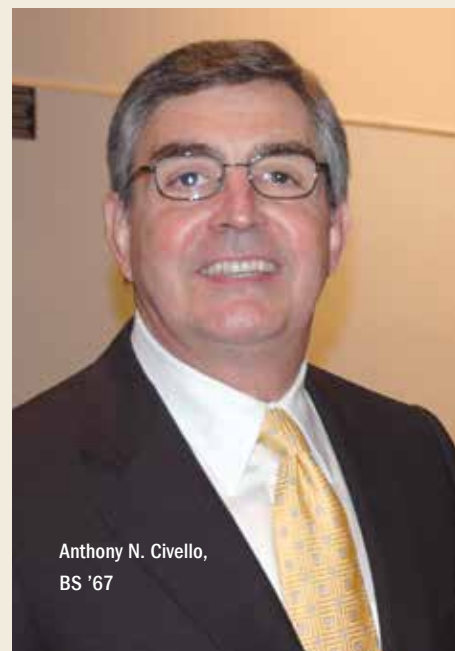
**Anthony Civello**, BS '67, was recognized for his nearly five decades of service to pharmacy and the chain drug industry as he was awarded the Sheldon W. Fantle Lifetime Achievement Award during the NACDS Annual Meeting. Mark Griffin, president and CEO of Lewis Drugs, and fellow Pitt alumnus Larry Merlo, president and CEO of CVS Caremark, were on hand to present the award.

### Thorpe Analytics Leader at National VA PROMISE Centers

**Joshua Thorpe**, PhD, MPH, was named the associate director of analytics and research for the Veteran's Administration's Performance Reporting and Outcomes Measurement to Improve the Standard of Care at End-of-life Center, PROMISE.

Thorpe will lead psychometric and predictive analytical projects aimed to improve prescribing and medical care quality/safety in veterans at the end of life and increase family satisfaction with the end of life care delivered to our nation's veterans.

Supported by the VA's Comprehensive End-of-Life Care Initiative, the goals of the PROMISE Center are to (1) identify and reduce unwanted variation in the quality of end-of-life care throughout the VA; and (2) define and disseminate processes of care (best practices) that contribute to improved outcomes for veterans throughout the system near the end of life and their families.

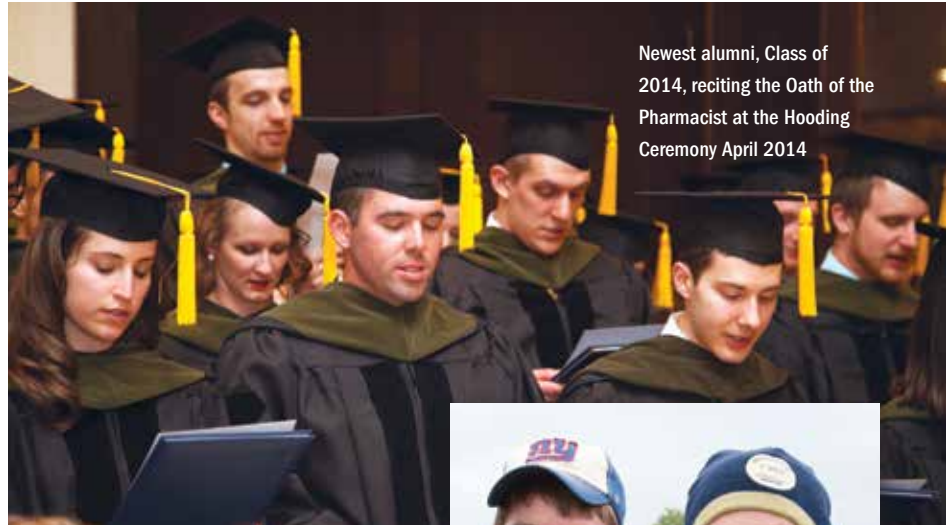
Anthony N. Civello,  
BS '67

PROMISE is a National VA Center in collaboration between the National VA Hospice and Palliative Care and the Center for Health Equity Research and Promotion (CHERP). CHERP is a national VA Health Services Research and Development Center of Innovation colocated at the VISN4 hub VA Medical Centers in Pittsburgh and Philadelphia.





View of Salk Pavilion and Salk Hall from Darragh Street



Newest alumni, Class of 2014, reciting the Oath of the Pharmacist at the Hooding Ceremony April 2014



Matthew Osterhaus, president of the American Pharmacists Association (center) with students Kaleen Hayes, Troy Albrecht, Daniela Policicchio, and Brian Tereri



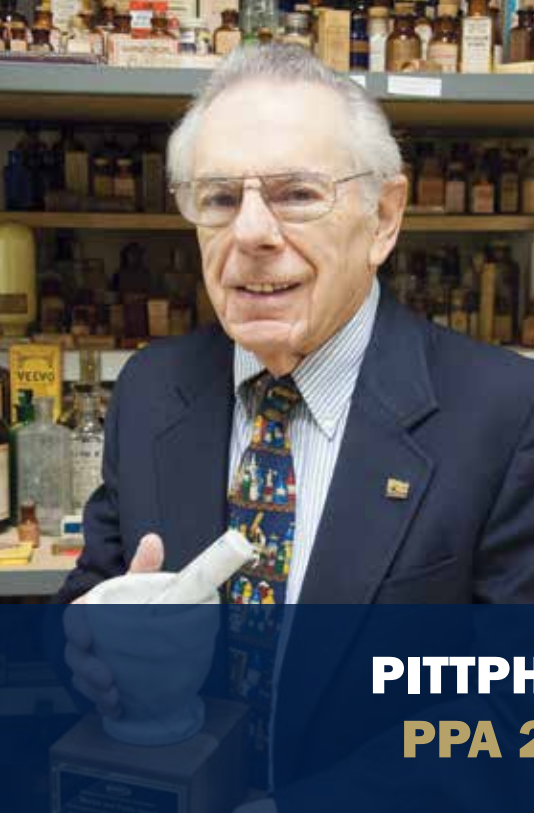
PittPharmacy student Kyle McGrath (Class of 2015) with faculty member Mike Zemaitis at the 11th Annual Joseph A. Gatto Scholarship Golf Invitational May 2014



Sixth Annual Pittsburgh AAPS Student Research Symposium held on Pitt campus October 2014



Dean Patricia D. Kroboth and Weiming Li, President of West China Hospital, sign a Memorandum of Understanding at the opening meeting of the Chinese Pharmacy Association in Chengdu, China (July 2014).



## PITTPHARMACY AWARD LEADER AT PPA 2014 ANNUAL CONFERENCE

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### Jonas Receives PPA Mortar and Pestle Award

The Pennsylvania Pharmacists Association (PPA) honored **Stanton Jonas**, PharmBS '51, MPH, with the Mortar and Pestle Award.

The Mortar and Pestle Award is one of special recognition presented solely at the discretion of the PPA Board of Directors which recognizes service to the pharmacy profession.

Jonas has had an illustrious pharmacy career following his graduation from the University of Pittsburgh where he was a Rho Chi member. He joined the U.S. Air Force and served as a chief pharmacist. After being honorably discharged, he joined Thrift Drug and then managed Penn-Wood Pharmacy and the Carlton Pharmacy. Selected by the Allegheny County Health Department in 1965 to start its pharmacy, he obtained a Pennsylvania pharmacy license and initiated mailing penicillin to its rheumatic fever registry patients and prepackaging tuberculosis clinic medications.

In 1967, he was the pharmacist coordinator for the 60-site countywide mass measles program. He again held that position in 1970 for the 130-site mass rubella program. It was the largest single-day, immunization-by-injection program in the United States. During his years with the Allegheny Health Department, Jonas accomplished much and was always a champion of the community pharmacist and the role they play in health care.

He served as president of the Allegheny County Pharmacists Association (ACPA) in 1983 and remains on its Board of Directors today. As chair since 1972 of its Poison Prevention Committee, he initiated Poison Prevention month, sending literature kits to pharmacies throughout Allegheny County, continuing his involvement to this day.

In 2005, Dean Patricia D. Kroboth appointed Jonas as curator of the Elmer H. Grimm Sr. Pharmacy Museum at the University of Pittsburgh School of Pharmacy. As one of Pitt's outstanding graduates, a true believer in the community pharmacists, and a passionate advocate for pharmacists' role in health care, this award is certainly richly deserved.

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### Drab 2014 PPA Pharmacist of the Year

Associate Professor **Scott R. Drab**, PharmD '89, CDE, BC-ADM, was awarded the 2014 Pharmacist of the Year Award, recognizing a pharmacist who has demonstrated dedication to the profession of pharmacy, contributed time and effort to the various professional organizations, furthered the profession of pharmacy through community service, and embodied those qualities of attitude and leadership, which exemplified the profession.

Drab exemplifies the pharmacy profession and leads by example every day to educate patients, students and other health care professionals on how to care for patients with life-long chronic

conditions. Throughout his career, he has served as a mentor, a colleague, and a friend to many, and has always demonstrated the true meaning of "care provider" through his involvement in community service, professional organizations, and dedication to the advancement of the profession in provision of direct patient care. His approach to clinical practice has truly been patient centered. Working collaboratively and interprofessionally with primary care providers for approximately 20 years, he provides quality pharmaceutical care to educate patients and caregivers on diabetes management.

He is well respected in the pharmacy community for his dedication to patient care and his passion for teaching, with a worldwide reputation as a leader in diabetes education, having served as the director of curricular design of DM Educate™ since its inception in 2005. Under his leadership, this diabetes management course truly lives up to its mission of improving diabetes education worldwide.

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### Bacci Recognized as PPA 10 Under 10

PittPharmacy Alumna **Jennifer Bacci** PharmD '11 was recognized as one of ten outstanding pharmacists who have been practicing for less than 10s years.

The Ten Under Ten Awards recognize the top 10 pharmacists practicing for less than 10 years that demonstrate commitment to advancing



**Stanton J. Jonas, Scott Drab, Jennifer Bacci, Meera Vachhani, Neil Turco, Shea Liput, Aaron Devanathan, Kelsey Moss**

the profession, involvement in PPA and other pharmacy associations, and/or service to their community. The awards are presented every three years.

Bacci completed a community pharmacy residency with the University of Pittsburgh and Rite Aid Corporation. During that time, she worked to advance the clinical services provided at Rite Aid, investigate incorporation of clinical services into community pharmacy workflow, and teach students about how to care for patients in the community. After her residency completion, she chose to practice in the community, and now is pursuing additional post-graduate training through a community pharmacy research fellowship. Bacci has been involved in a variety of research projects focused on advancing the role of the community pharmacist in delivery of direct patient care, with a number of publications pending. She is also a lead author on a manuscript currently in review titled *Implementation of brief medications adherence interventions within a community chain pharmacy practice: a qualitative analysis*.

In addition to her research efforts, Bacci has been an active member of PPA since she was a student member and has presented continuing education programs for members at several meetings. Additionally, she is the chair of the New Practitioner Advisory Board and has worked to bring students and new practitioners together by offering educational programs through the Allegheny County Pharmacy Association (ACPA) for current students held by new practitioners.

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### **Three-time Winners: PittPharmacy Students Achieving Independence Competition**

PittPharmacy students were the team winners of the Achieving Independence Competition for the third year in a row during the competition at the annual conference September 2014. Class of 2016 team members were **Meera Vachhani, Neil Turco, Shea Liput, and Aaron Devanathan**. Their faculty advisor was Karen Steinmetz Pater, PharmD, and their coach was independent pharmacy owner David Cippel, RPh.

The Achieving Independence Competition is designed to complement the National Community Pharmacists Association National Student Business Plan Competition. The competition is meant to spark the entrepreneurial spirit and serve as a stepping stone to competing on a larger scale.

The judges made their decision based on the following criteria: innovative concepts and creativity, feasibility/ability to implement, and format. The University of Pittsburgh team impressed the judges with its business concept for Medstar Pharmacy, in the North Hills. Their team's concept included purchasing a pre-existing pharmacy that is accompanied by a separately owned eat-in restaurant in the same building. The judges liked the financial plan and the highlighting of a simple concept that is easy to implement. The judges also enjoyed the team's incorporation of classes in nutrition and wellness

to assist with patient adherence for a healthy lifestyle, in which they could work in conjunction with the eat-in restaurant located in the same building.

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### **Student Organization Wins Government Relations Award**

The 2014 Student Government Relations Award was presented to PittPharmacy students by the Pennsylvania Pharmacists Association. This award appropriately salutes the school, which has gone above and beyond in the area of advocacy work. Points were awarded for participation in legislative day, meetings with legislators, PAC awareness, and other innovative advocacy efforts. The University of Pittsburgh School of Pharmacy had a total of 126 student attendees, 42 of whom held legislative appointments, on legislative day to advocate for advancing pharmacy practice. Not only were they involved with legislative day, they also hosted a press conference in conjunction with Representative Seth Grove on the importance of the immunization bill for public health and for pharmacists.

# In the News

FACULTY, STUDENTS, AND ALUMNI

## Pringle Study: Community Pharmacist Intervention Boosts Drug Adherence, Reduces Health Costs

According to a new study, The Pennsylvania Project: Pharmacist Intervention Improved Medication Adherence And Reduced Health Care Costs, led by PittPharmacy faculty member **Janice L. Pringle, PhD**, community pharmacists can dramatically help their patients stick to their prescription regimens. The findings, reported in *Health Affairs*, suggest also that greater adherence to certain chronic medications can lead to a reduction in emergency room visits and hospital admissions, thereby lowering health care costs for a variety of health conditions including diabetes and asthma.

About 70 percent of all Medicare patients get their prescriptions filled at neighborhood drug stores, but pharmacists can do more for patients than just prepare medications, said lead investigator Pringle, associate professor and director of the Program Evaluation and Research Unit (PERU) at PittPharmacy. More information on the complete study at [content.healthaffairs.org/content/33/8/1444.full.pdf+html](http://content.healthaffairs.org/content/33/8/1444.full.pdf+html)

## Pitt Hosts All Together Better Health VII

The University of Pittsburgh was proud to serve as the first-ever U.S. host for the All Together Better Health (ATBH) VII in June 2014. Cohost for the event was the National Center for Interprofessional Practice and Education. ATBH is the leading global conference that brings together providers, health system executives, educators, students, policymakers, and health care industry leaders to advance interprofessional practice and education locally, regionally, and worldwide.



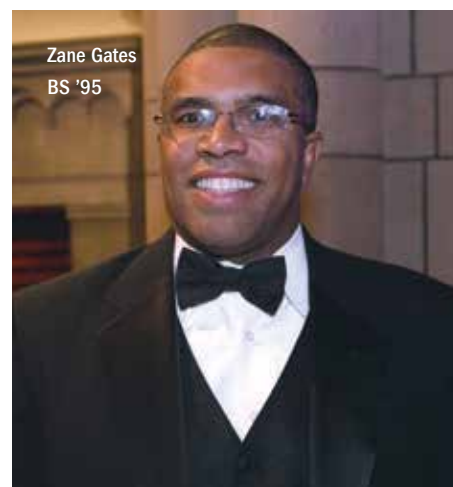
Rachel  
Jansen

School of Pharmacy Associate Dean for Education **Susan Meyer, PhD**, along with **Everette James**, associate vice chancellor for health policy and planning, and staff in the University of Pittsburgh Health Policy Institute, led the program planning efforts over the 20-month period since Pitt was selected as the host of the 2014 conference.

PharmD student **Rachel Jansen** (Class of 2015) was selected one of three student poster winners at the international conference. Her poster, *Developing a team-based integrated care model to improve physical and behavioral health outcomes of patients with serious mental illness* was conducted under the guidance of PittPharmacy faculty member **Tanya J. Fabian, PharmD, PhD '98, '03**, and preceptors **Jamie Montgomery, BSPHR '86** and **Ana Lupu**.

## Statewide OD Prevention Web Site Launched by Pitt Pharmacy

Program Evaluation and Research Unit (PERU) at the University of Pittsburgh School of Pharmacy has received funding from the Pennsylvania Commission on Crime and Delinquency to develop an overdose prevention



Zane Gates  
BS '95

Web site in response to the growing overdose epidemic in Pennsylvania. The overall goal of this project is to develop a meaningful, evidence-based resource that can support efforts to reduce overdose and overdose deaths. The Pennsylvania Department of Drug and Alcohol Programs, the Allegheny County Medical Examiner's Office, and the Single County Authorities of Allegheny, Blair, Bucks, Butler, Dauphin, Delaware, and Westmoreland counties have collaborated with PERU on this important project.

OverdoseFreePA is located at [overdosefree-pa.pitt.edu](http://overdosefree-pa.pitt.edu)

**Brahim Shettima, PharmD '14**, was featured as a Pharmacy Future Leader by the *Pharmacy Podcast Show*. His podcast covered topics such as student pharmacist advocacy, advanced pharmacy practice experiences, research, policy, and exploring opportunities in the pharmaceutical industry

Distinguished alumnus **Zane Gates, BSPHR '95**, gave a TED Talk with **Alyssa Lynch '95** to discuss how the game theory can save the current state of health care

# SHARE YOUR NEWS WITH OUR PITT FAMILY

The PittPharmacy family wants to hear about your achievements and promotions. We want to share with alumni, faculty, staff, and students. Send us your news and keep in touch.

**LINKEDIN:**

<http://tinyurl.com/PittPharmLinkedIn>

**TWITTER:**

@pittpharmacy and @RxDeanKroboth

**FACEBOOK:**

<facebook.com/PittPharmacy>

**KEEP IN TOUCH:**

[rxalumni@pitt.edu](mailto:rxalumni@pitt.edu)

**HOME BASE:**

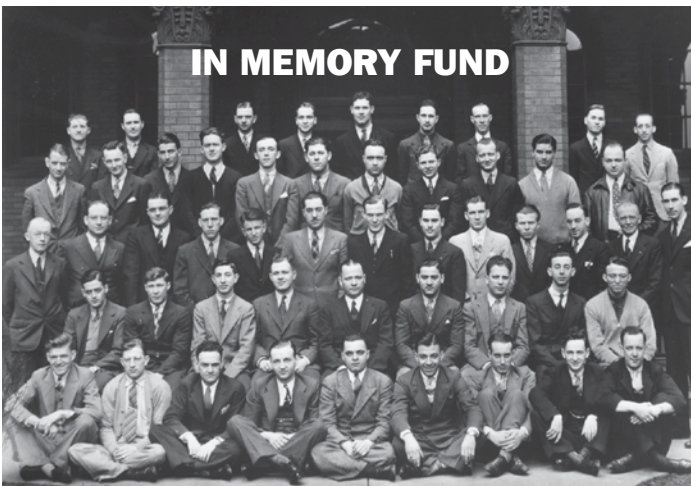
[pharmacy.pitt.edu](http://pharmacy.pitt.edu)



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Don't wait to update your e-mail information before the next electronic issue.  
Contact Meg Osborne at [omeghan@pitt.edu](mailto:omeghan@pitt.edu)

### IN MEMORY FUND



To establish an award in memory of an alumnus, family, or friend that will provide a deserving pharmacy student needed funds, please contact Meg Osborne at [omeghan@pitt.edu](mailto:omeghan@pitt.edu).

### IN MEMORIAM

#### RECENTLY DECEASED SCHOOL OF PHARMACY ALUMNI

Frank B. Clark - BS '50	Helen D. McCue - BS '41
James Arthur Douglas - BS '50	Valerie J. Peterson - BS '77
Wilbur Thomas Euston - BS '42	David P. Rosenfield - BS '53
Albert R. Gretz - BS '55	James E. Rougeux - BS '51
Robert Alan Heiser - BS '63	Thomas J. Shaffer - BS '54
Gregor J. Hrescak - BS '68	Francis A. Spurdute - BS '72
Charles P. Jasper III - BS '63	Ralph F. Stevens - BS '51
Louis Liepack - BS '54	Mary A. Wills - BS '49
Feng Liu - BS '99	



Patrick Pugliese, PharmD '11, and  
Brandon Antinopoulos, PharmD '14  
at the Pitt University Pharmacy.

# EDUCATING TOMORROW'S PHARMACISTS

Second of a two-part series about PittPharmacy's approach to educating the next generation of pharmacist

## Part 2: Personalizing Education

**P**ittPharmacy is providing students with a personalized education that will efficiently prepare them to innovate, lead, and identify opportunities to improve health using the clinical and research principles of the pharmaceutical sciences. We believe that personalized education will enrich individual student experiences and will better prepare them for success as they navigate the rapidly changing health care landscape and postgraduate environment.

Educating students to lead a profession that fuses patient care, technology, and business is no small feat. As students personalize their education, they will be able to work with their unique talents, hone their skills, and out-compete others for positions.

PittPharmacy accomplishes this personalization through an education that assures excellence in the basics of general practice and offers the opportunity to experience intense, focused training personalized to individual students' interests, skills, and talents.

### Personalizing through Areas of Concentration

Today, the School of Pharmacy offers six Areas of Concentration (ARCO) that provide students the opportunity to learn through focused electives, experiential rotations, and a mentored project.

Two of the Areas of Concentration come together through stories of two alums—Patrick Pugliese, PharmD '11, and Brandon Antinopoulos, '14.

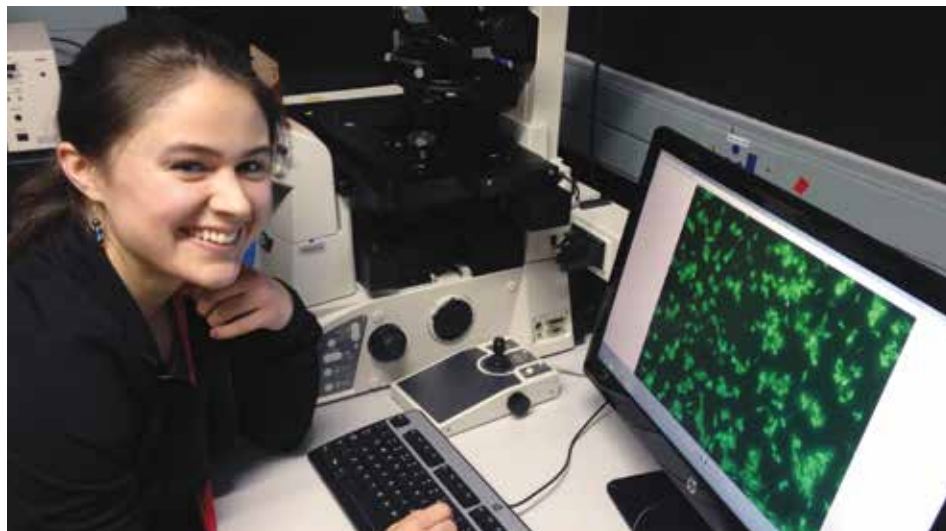
One of the first ARCOs PittPharmacy established is Pharmacy Business Administration. The experiences that Pugliese had in a particular elective have lingered long after graduation. The course, taught by Gordon Vanscoy, associate dean for business innovation and an associate professor in the department of pharmacy and therapeutics, follows the health care dollar from the patient through the health care system, pharmacy benefit manager, retail chain, and into the pharmaceutical industry. Building on business management concepts taught in earlier courses, the elective offers a structured understanding of the business of medicine in health care via an executive boardroom format.

Pugliese states that “It was a different way

to learn, for sure, and very welcomed after the fact-based curriculum to sit down and talk, absorb, and have more of a free-flowing classroom. Vanscoy brings pharmaceutical and other health care executives to the course to speak with the students, a feature that left a lasting impression. He also recalls the one-on-one discussion he had with the soon-to-be chief executive of what is now CVS Health, Larry Merlo. “The conversation was incredibly valuable,” Pugliese says. “Pharmacy is still very much a business at the end of the day.” Pugliese now manages Pitt's University Pharmacy (formerly known as Student Health Pharmacy), where he is planning several innovations that cater to his unique patient base.

The ARCOs and electives offer small group settings for personalized learning and interactions with faculty and leaders in the profession.

Antinopoulos personalized his education in the Community Leadership and Innovation in Practice ARCO. Through CLIP, students develop innovations to that will potentially improve patient care in community pharmacies and have positive financial impact.



Above:  
Analyzing an attenuated strain of TB using fluorescent microscopy

Left: Lauren Cirrincione in the personal protective equipment necessary for Biosafety Level 3 (BSL3) laboratories, used in TB research.

While he was a student, Antinopoulos and three colleagues received mentoring and won the Achieving Independence Competition at the Pennsylvania Pharmacists Association. Today, Antinopoulos is continuing his skill development through a community practice residency. The cycle is created. His mentor is Pugliese, with whom he continues to explore innovative concepts.

The four other ARCOs are Research, Global Health, Pediatrics, and Pharmacotherapy Scholars. With each come dozens of stories of personalized education. This fall, 77 students are enrolled in ARCOs.

**Creating a Personalized Curriculum**

Some students choose to personalize their education through approaches other than ARCOs.

A network of supportive faculty helped Lauren Cirrincione earn a research internship with the prestigious Howard Hughes program. As a P1 student, Cirrincione’s work with Bhutanese refugees receiving tuberculosis (TB) treatment at underserved clinics led to her interest in developing safer anti-TB medications through research. When she enrolled in the Research ARCO, Tom Nolin, PharmD, PhD, advised her how to develop her research skills. She took a special topics course in Kerry Empey’s PharmD, PhD, lab, focusing on infectious disease and biosafety-level laboratory work. The experience was so rewarding that she pursued a second special topics research course with Nolin. These research

**77**

**77 STUDENTS CURRENTLY ARE ENROLLED IN ARCOs**

16 students in the Global Health

16 students in the Research

Three students in the Pediatrics

10 students in the Pharmacotherapy Scholars

12 students in the Pharmacy Business Administration

20 students in the Community Leadership, Innovation, and Practice



# “At Pitt, I’ve had the chance to carve out my own niche.”

—Ravi Patel

experiences gave Cirrincione a competitive edge and she was elected as one of 12 students globally to spend 10 weeks in Durban, South Africa, investigating factors that contribute to antibiotic resistance in TB. James Pschirer, PharmD, director of experiential learning, helped Cirrincione register this summer experience as a P4 rotation. The community of faculty willing to encourage and develop a student’s curiosity helped her to personalize her PharmD experiences and achieve her goal of participating in TB related research.

Students and faculty share a commitment to personalizing education. The number of student codesigned individualized electives, which they develop with faculty mentors as surged. In just the present fall term 40 percent of the eligible students are enrolled in their own personalized courses, which range from examples as diverse as drug-induced delirium in the intensive care unit, vaccine and immunization research on respiratory syncytial virus, stroke prevention, and formative assessments in education.

Extracurricular learning is an avenue pursued by students who compete for programs like the Schweitzer Fellowship Program, highlighted in the last *PittPharmacy* magazine.

Other examples include competitive student programs including fellowships through the Howard Hughes Medical Foundation, Jewish Healthcare Foundation, and the Paul Ambrose Scholars Program.

## Changes our Infrastructure to Support Personalization

Both course numbering and tuition structure put caps on learning for many students. We have taken off the lids!

A year ago, we changed our tuition structure so that students pay a set amount of tuition per year and can take additional courses during the summers or the school year

without additional tuition. This has solved a dilemma for students who would tell us they wanted to take additional courses and didn’t because they did not want to pay the overload tuition.

Because of an artifact in our course numbering system, students were limited in the number of semesters they could take their own personalized courses. Once we understood the implications, the staff changed the numbering structure to allow students to continue a line of inquiry over the course of several semesters.

## Planning a Personal Path

Right from the first semester, students meet with alumni through Career Roundtables and learn of paths that others have taken. All P1 students write a paper describing why and how they will personalize their own education and develop their career goals, tentative though they may be at the beginning.

Students document and highlight their educational growth via a schoolwide electronic portfolio system. From critical thinking to medication therapy management, the portfolio measures student development in each of the school’s 13 curricular outcomes. Beginning in their P1 year, students submit evidence of their achievements in each area through activities such as reflective journaling, poster submissions, service learning, or a research paper.

Faculty members review the portfolio with students twice a year, focusing targeted feedback based on the students’ personal goals. “The portfolio allows students to tell their personal stories about their development in becoming a pharmacist,” says Susan Meyer, associate dean for education.

By the P2 and P3 years, students use the portfolio as a multimedia CV built around their specific career goals. Alumni and pre-

## GETTING TO EXPERT FASTER

**A**shley Holzworth, PharmD ’09, recalls how realistic the computerized mannequins in her course were. In an exercise studying how different medications affected patients with different sinus rhythms, Holzworth accidentally pushed amiodarone—which is used to treat people with heart arrhythmia—directly into the patient’s port, with poor outcomes.

While on rotation a few months later, the same situation arose, this time with a real patient. Holzworth saw a resident draw up amiodarone into a syringe and take a step toward the patient.

“I burst out, telling them not to push the amiodarone,” Holzworth recalls. “The resident quickly listened and realized what was going on and took the necessary steps to help the patient.”

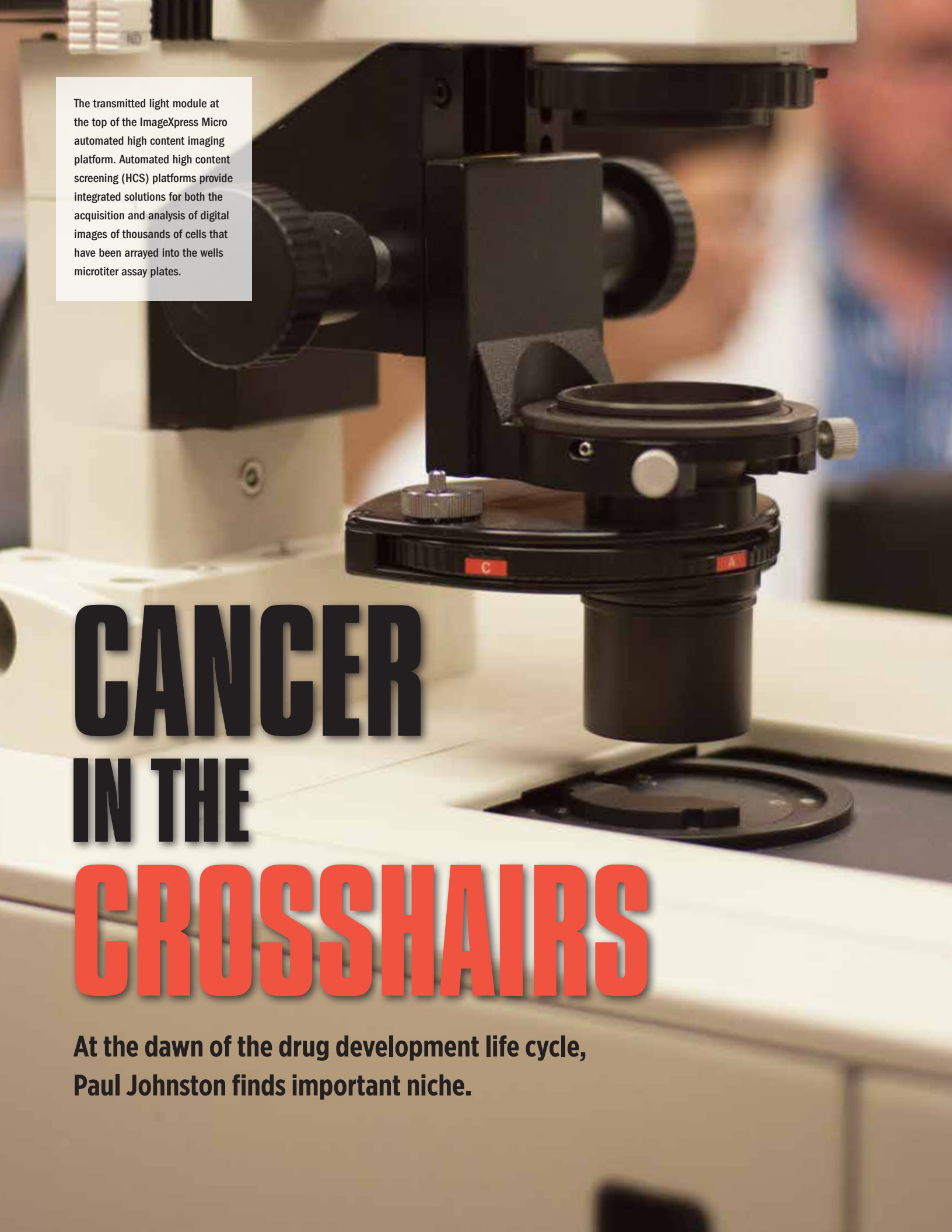
Without the simulation experience, Holzworth would not have known to intervene. Because of it, she was already a better practitioner—even before graduating.

ceptors review the portfolios at this stage, allowing students to practice how they will present themselves as candidates for employment or residencies and identify areas for improvement.

Ravi Patel, who graduated in 2014, credits the school with providing the resources to make his “ideas a reality” and encouraging his personal growth.

“At Pitt, I’ve had the chance to carve out my niche rather than finding it,” he says.





The transmitted light module at the top of the ImageXpress Micro automated high content imaging platform. Automated high content screening (HCS) platforms provide integrated solutions for both the acquisition and analysis of digital images of thousands of cells that have been arrayed into the wells microtiter assay plates.

# CANCER IN THE CROSSHAIRS

At the dawn of the drug development life cycle,  
Paul Johnston finds important niche.

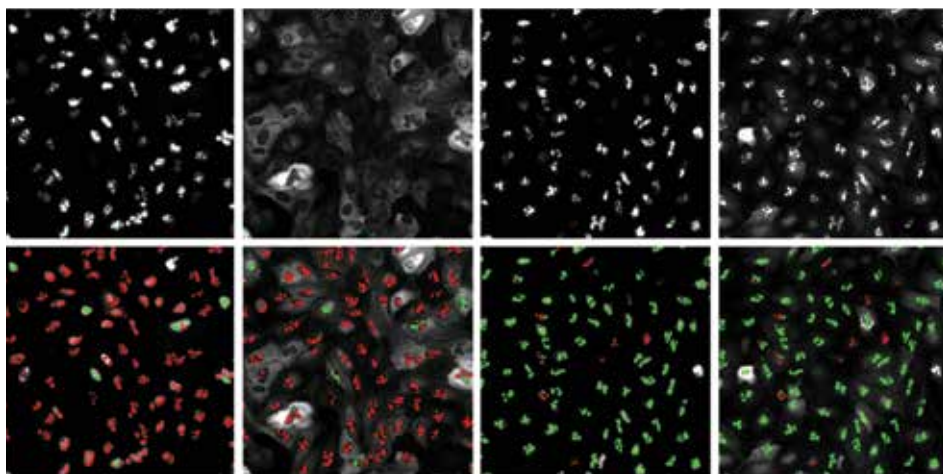
**D**iscovery of the cellular pathway that causes a disease starts the exciting and challenging process of discovering a drug or new combination of drugs that will correct the pathology. The sheer number of chemical compounds that might have the desired effect is daunting. Millions of compounds could potentially be tested, but testing that many compounds in animals for effect is not possible. Paul Johnston, PhD, has been addressing that vexing problem for the last 20 years.

A biochemist by training, Johnston's stock-in-trade is developing high throughput and high content screening assays capable of testing hundreds of thousands of chemicals for activity. Each time Johnston develops a new assay, he needs to find a key point in the biochemical pathway where interaction with a test compound yields a measureable desired change. He then develops highly specific and robust cellular assays using robotics to create a system that can screen thousands of compounds per day. Johnston must grow, harvest, and count the cells, uniformly dispense them into wells, and then incubate them with the test compounds. He asserts that "the scientific payoff is better using cells than in non-cell-based experiments, which are easier to perform."

"If you find a hit in a cell-based assay, you generally have a better lead because you already know the compound works in a cell."

"What I hope to see are compounds that I identify moving through the drug development process. Then comes the next batch of questions: Will the compound be absorbed and distributed throughout the body? Will it be toxic? How will the body metabolize it?"

Johnston, a research associate professor in the department of pharmaceutical sciences, has been asking those questions at the University of Pittsburgh since arriving in 2005. Pitt's Drug Discovery Institute had just won funding through the pilot phase of the National Institutes of Health's roadmap initiative, which sought to transform biomedical research by overcoming some defined knowledge gaps. Johnston, who previously worked in the pharmaceutical industry, was hired and spent his first few years at Pitt building a high throughput screening center, ending up with one of the most comprehensive facilities of its kind in academia.



Androgen Receptor (AR) Transcriptional Intermediary Factor 2 (TIF2) Protein-Protein Interactions (PPIs) contribute to castration resistant metastatic prostate cancer. We developed a high content imaging assay to quantify AR-TIF2 PPIs; green and red indicate the presence or absence of PPIs respectively. Small molecule AR-TIF2 PPI blockers/disruptors may become prostate cancer therapeutics.

"For some approaches, I'd certainly say that we could compete with big pharma," he says.

The lab collaborated with both Pitt researchers and scientists from outside universities, guiding them about which assay formats to select and helping to perfect the assays to the point where they're ready to begin screening.

"That's a really important point," said Johnston. "A lot of investigators in big pharma and academia have been running these assays for years and think they're ready to go," but almost universally, the assays have not been fully developed and involve too many chances for statistical variability.

About three years ago, Johnston left the Drug Discovery Institute to set up his own chemical biology lab at the School of Pharmacy, where he continues to collaborate with investigators. Currently, most of his projects focus on cancer therapeutics.

"Many of my colleagues are interested in, and working on, drugs to cure cancer," he explains. "It's a major unmet need."

### Cancer in the crosshairs

Johnston recently collaborated with Jennifer R. Grandis, a Pitt Medical School researcher who is focused on head and neck cancer, to develop a high-content imaging assay to identify selective inhibitors of STAT3 pathway activation that is common in head and neck cancer. The STAT3 and STAT1 pathways are

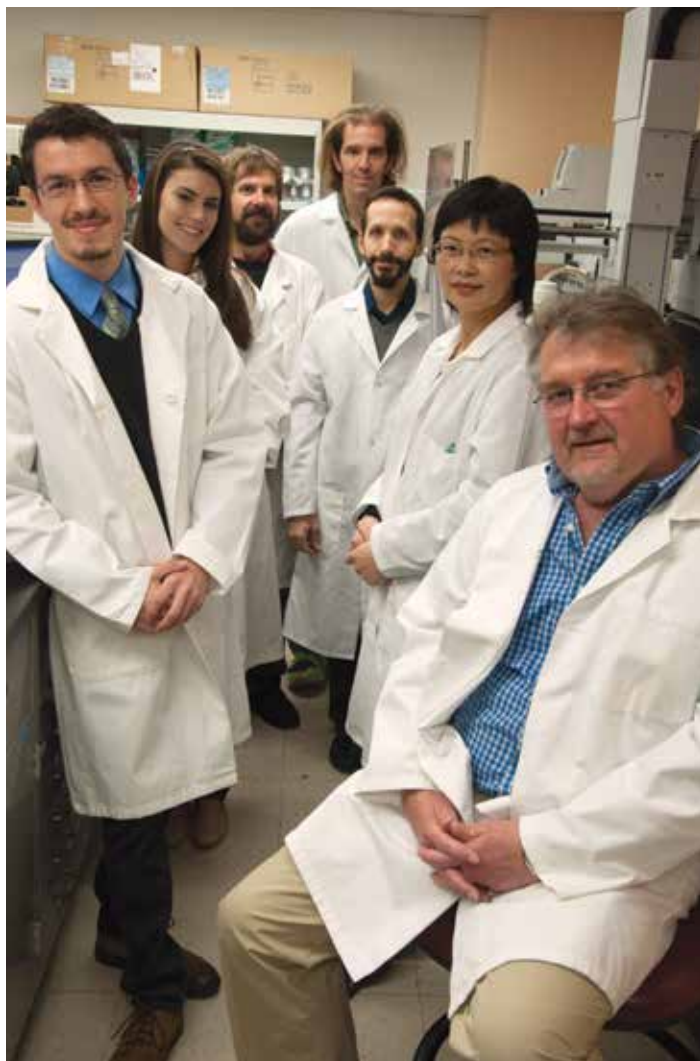
involved in the regulation of cell growth and they work in opposite directions. STAT3's target genes inhibit cell death (apoptosis), promote cell proliferation, and hinder anti-tumor immune responses. STAT1's target genes, on the other hand, activate cell cycle arrest, promote apoptosis, and enhance antitumor immunity. If a compound inhibits STAT3 selectively and does not interfere with STAT1 signaling, the compound would be a potentially effective anticancer drug.

Johnston, in developing his screen, tested several head and neck squamous cell cancer (HNSCC) cell lines as candidates for the assay based on the biochemistry of the STAT3 pathways and the cytokines that activated the pathways. He also developed a counter screen for STAT1 that could be conducted in the same cells. All of the 22 steps in the assay were automated and then validated by testing a 1,280-compound library of pharmacologically active compounds. Johnston's High Content Screen is now being used to screen chemical libraries to identify new drug leads to treat head and neck cancer.

In July 2014, Johnston and Nathalie Wong from the Chinese University of Hong Kong announced a collaborative research agreement to screen the 50,000-compound Pharmacy School Diversity Library to identify inhibitors of liver cancer cell growth.

Specifically, they are looking for compounds that target higher levels of the GHF-H1 onco-

“Many of my colleagues are interested in, and working on drugs to cure cancer. It’s a major unmet need.” —Paul Johnston



Paul Johnston (seated) with his lab team, left, front to back graduate students Stan Kochanek, Ashley Fancher, and Tim Poulard. Right, front to back, research associates Yun Hua, David Close, and Daniel Camarco.

gene, which is associated with more aggressive tumors. Wong is providing the cell lines, and Johnston is developing the high throughput screening assays. Their hope is to flag compounds that might one day be developed into new drugs for liver cancer therapy.

“In the end, we want to provide [researchers] with a list: Here are the top hits from the screen that would selectively kill liver cancer cells that overexpress GHF-H1,” Johnston says.

In an independent prostate cancer project, Johnston’s approach was to optimize a high content biosensor imaging assay that would measure the interaction between the androgen receptor that is critical for the proliferation of prostate tumor cells and a coactivator that helps regulate gene transcription. The assay he developed is significant because it could help identify drugs that would work in the more aggressive forms of prostate cancer that continue to grow even after surgery and relapse from the standard androgen ablation therapies.

Another contract from the National Cancer Institute charged Johnston with developing miniature assays for drug combination screening in several forms of cancer, including melanoma, leukemia, prostate, and ovarian cancer. The idea was the find two drugs that, when combined together, synergistically killed more cancer cells more effectively than they would alone.

#### Dawn of discovery

Working at the very beginning of the drug development life cycle, Johnston’s sophisticated high content screens play an important role in the discovery of new therapeutics. His role is enhanced by the collaborations he has been able to build with Pitt colleagues, particularly in the School of Pharmacy, where researchers commonly investigate transporters, metabolism, drug absorption, and distribution—all factors that influence how well a drug achieves its goal.

That ability to collaborate across disciplines is crucial to his program’s success, he notes.

“If I find some good-looking hit and lead compounds, I have chemistry collaborators who put some skin in the game and do some synthesis around the leads,” Johnston says. “In academia, unless you can establish collaboration with the people who have skills different from yours, you have to teach yourself how to do it. Having my group be in the School of Pharmacy, where I’m side by side with these colleagues, means that it’s a much more efficient process.”



Graduate student Shoroq Altawalbeh at the AAPS Student Research Symposium



Main entrance to Salk Pavilion from Sutherland Street



Recently retired Professor Emeritus Regis R. Vollmer, PhD, with wife, Marian, at reception honoring his 37 years of service to the School of Pharmacy



PittPharmacy Alumni and Class of 2018 students at Career Round Table 2014



Career Expo 2014



PittPharmacy Board of Visitors, October 2014. Left to right: John T. Tighe III, BS '78; Krista M. Pedley, PharmD '00; Daniel J. Cobaugh, BS '87; Richard J. Bertz, PhD '95; and Herbert S. Shear

# Where We Are Going

INSIDE SALK HALL

## GRANTS

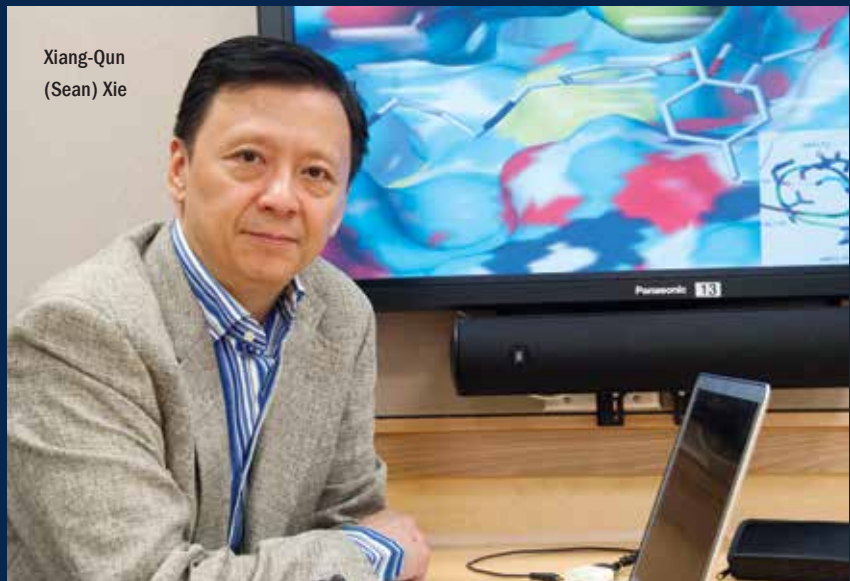
### Faculty

**Shilpa Sant**, PhD, has received a grant from the National Institutes of Health for the study titled *Engineered Microenvironments to Model Effect of Size in Tumor Progression*. The goal of this study is to develop a three-dimensional tissue-engineered breast tumor model to understand how tumor growth, and in turn, metabolic stress/hypoxia promotes tumor progression.

**Paul A. Johnston**, PhD, and **Nathalie Wong** from the Chinese University of Hong Kong have entered a collaborative research agreement to screen the 50,000 compound Pharmacy School Diversity Library to identify inhibitors of liver cancer cell growth. This project will do a high throughput screen that



Shilpa Sant



Xiang-Qun  
(Sean) Xie

### XIE AWARDED TO ESTABLISH NIDA CENTER OF EXCELLENCE

Xiang-Qun (Sean) Xie, EMBA, PhD, was awarded a \$5.4 million National Institutes of Health Center grant to establish a National Institute of Drug Abuse Center of Excellence for Computational Chemogenomics Drug Abuse Research.

Xie serves as the director for this joint initiative between the University of Pittsburgh and Carnegie Mellon University, with goals to advance and implement state-of-the-art computational chemical genomics, computational biology, and computational genomics technologies

for facilitating research on drug abuse prevention and treatment; to centralize the big data chemical genomics knowledgebase and computational program tools through a GPU-accelerated cloud computing server platform and thus enable efficient information exchange; and to advance neurological systems pharmacology and translational research and to accelerate the development of novel intervention strategies for preventing and treating drug abuse and addiction.

identifies compounds that will selectively inhibit the growth of liver cell lines over-expressing the GEF-H1 oncogene.

Hepatocellular carcinomas (HCC) are aggressive tumors that are the sixth-most common cause of cancer mortality worldwide. GEF-H1 is a microtubule associated guanine nucleotide exchange factor that regulates the Rho family of GTPases that control the organization of the cytoskeleton, cell morphology, and motility. GEF-H1 gene copy numbers were amplified in a significant number of HCC tumors (64 percent) and were associated with increased tumor migration and invasiveness.

Wong will provide a panel of HCC cell lines and Johnston will develop high throughput screening (HTS) assays to screen for compounds that selectively inhibit the growth of HCC cell lines with elevated GEF-H1 expression levels.

Hit compounds from this HTS campaign have the potential to become leads that can be further optimized into novel drug candidates for liver cancer therapy.

**Wen Xie**, MD, PhD, was awarded an NIH R01 grant for his work *A Novel Regulation of the Phase II Enzyme Estrogen Sulfotransferase Project Narrative*. Estrogen sulfotransferase (EST or SULT1E1) is best known for its activity in sulfonating and deactivating estrogens. The goal of this proposal is to determine whether EST is regulated by sepsis and the implications of this regulation in estrogen homeostasis. The research also aims to determine whether the expression and regulation of EST affect the host's sensitivity to sepsis. The reciprocal regulation of inflammation and EST may represent a yet to be explored mechanism of endocrine regulation of inflammation. Elucidation of this mechanism may provide a novel therapeutic target for the prevention and treatment of inflammation related diseases.

Wen Xie also was awarded a new R01 grant for *The Hepatic Function of Cholesterol Sulfotransferase 2B1b (SULT2B1b) in Energy Metabolism*. The cholesterol sulfotransferase SULT2B1b is a cytosolic sulfotransferase best known for its activity in sulfonating cholesterol

and oxysterols. The goal of this study is to determine the role of SULT2B1b and its enzymatic byproduct cholesterol sulfate in energy metabolism and metabolic syndrome. Xie and his group hypothesize that the cholesterol sulfotransferase SULT2B1b has a previously unrecognized role in controlling energy metabolism and the pathogenesis of metabolic disease. Results from this study may establish SULT2B1b as a novel therapeutic target to treat and prevent obesity and type 2 diabetes.

**Paul A. Johnston**, PhD, was awarded a grant funded by NIH under the UPCL's SPORE in Melanoma and Skin Cancer. The project title is *Identifying Synergy between APE1 DNA Repair Inhibitors and Approved Melanoma Cancer Drugs*.

The data generated from this study will provide insights into the potential (i) use of APE1 inhibitors in combination therapy depending on tumor phenotype and (ii) pathways that can be targeted to develop more effective mechanism-based therapies for melanoma.

### Students

The American Foundation for Pharmaceutical Education (AFPE) has selected **Shea Liput** (Class of 2016) as a recipient of the AFPE Gateway to Research Scholarship, a prestigious and highly competitive award. The intention of this grant is to encourage students to consider pursuing advanced graduate education and careers in the pharmaceutical sciences.

Liput will be working with faculty mentor Samuel Poloyac, PharmD, PhD, this summer under the direction of PhD student Kacey Anderson. Liput will be working to establish and validate the analytical method for measuring levetiracetam concentrations in the plasma, CSF, and brain for clinical and pre-clinical studies involving pediatric traumatic brain injury.



Wen Xie



Shea Liput

## ALUMNI

**Nicole Butteri**, PharmD '00, accepted a position as the manager of the Accountable Care Team for Lumeris

**Sarah Deutsch**, PharmD '13, accepted a position as a staff pharmacist for Walgreens Specialty Pharmacy

**Jennifer Stover Jaber**, PharmD '06, became the director of medical science liaisons for respiratory diseases at GlaxoSmithKline.

**Yardlee Kauffman**, PharmD '10, became the assistant professor of clinical pharmacy at the University of the Sciences in Philadelphia

**Alicia Lichvar**, PharmD '13, became a PGY-2 solid organ transplant pharmacy resident at UPMC

**Denise Mervis**, PharmD '00, accepted a position as SMSL at Bristol-Myers Squibb

**Nicole Pezzino**, PharmD '14, became a PGY-1 community pharmacy resident at UNC

**Deanna Rowe** PharmD '14, accepted a position as a clinical pharmacist at Gateway Health System in August

**Kinley Sepkovic Gannon**, PharmD '14, accepted a position with CVS Caremark Corporation

**Jeannine S. McCune**, PharmD '93, was promoted to full member at the Fred Hutchinson Cancer Research Center and an adjunct professor in the University of Washington Department of Pharmaceutics, McCune, will be awarded FCCP November 2014

**Anthony Mollica**, BSPHR '95, is now the vice president of operations at Ominicare Inc.

**Shailly Shah**, PharmD '12, became the assistant director of pharmacy at Johns Hopkins Bayview Medical Center

**Kara Sperandio** PharmD '06, accepted a new position as a national clinical account manager at AstraZeneca

**Brian Straub**, PharmD '11, accepted a position as the chief medical officer for Wheezy, a hardware and software platform that determines the overall health of an individual by tracking health attributes, lifestyle habits, and environmental factors at Vicinity Health Inc. in Arizona. Using statistical analysis and specific algorithms, Wheezy is able to calculate the probability of a disease-related life-threatening event before the patient even displays symptoms. The mobile app then sends a notification to the patient's doctor, allowing them to take preemptive measures to ensure optimal patient health.

**Vanita Sundararaman**, PharmD '11, accepted a new position at AHN in its coordination of care clinic. Currently, 80 percent of Sundararaman's patients require diabetes management. As Sundararaman moves forward in her position, her goal will be to supplement their appointments at Joslin as part of the transition of care program at all AHN hospitals.

**Greg Wolfe**, PharmD '09, accepted a position as the manager of clinical pharmacy operations for Biologics, Inc., an integrated oncology services company

# LEADING THE WAY

## PROFESSOR AWARDED NIH GRANT TO STUDY VITAMIN D TREATMENT IN PATIENTS WITH KIDNEY DISEASE

**V**itamin D—the nutrient commonly associated with sunshine, milk, and strong bones—is a fickle substance in patients with kidney disease. It is low so often that most kidney patients are prescribed Vitamin D supplements in an attempt to ward off bone disease. But it's unclear whether it plays a role in the pathways the body uses, both inside and outside the kidneys, to rid itself of drugs.

Enter Thomas Nolin, an assistant professor in the Department of Pharmacy and Therapeutics, whose research focuses on the on-again, off-again relationship that kidney patients have with the crucial vitamin.

Nolin serves as a principal investigator on a five-year, \$2.2 million grant from the National Institutes of Health exploring the role Vitamin D plays in the metabolism and transport of medications and how it is processed in the body of patients with kidney disease. (The other principal investigator, Melanie Joy at the University of Colorado, earned her bachelor's in pharmacy from Pitt in 1991.)

"The overarching hope, our long-term goal, is that this research will lead to improvements in medication management in our patients," Nolin says.

It's a relationship that, while theories abound, is not yet well understood by science. What is known is that up to 90 percent of people with chronic kidney disease also suffer from Vitamin D deficiency. In animal models and cell lines, there is a link between the vitamin and the function of the body's pathways



for drug metabolism and transport, in the kidneys and elsewhere in the body—so-called non-renal clearance pathways.

According to Nolin, some experiments show the administration of Vitamin D can improve function in these channels, while conversely, a deficit of Vitamin D hampers their function. Whether that is a direct impact, however, is unclear—and that’s what Nolin’s study hopes to clarify.

### Funding coup

Nolin has studied the impact of kidney disease on non-renal drug clearance pathways, such as the liver, for more than a decade. A pharmacist by training, he worked for several years as a clinical pharmacy specialist in nephrology at Maine Medical Center, where he developed a keen interest in research.

To help facilitate that interest, he earned his PharmD from Pitt in 1999, followed by a PhD in 2003. He returned to Maine Medical Center and successfully completed some clinical research projects before returning to Pitt in 2008, where he could expand his research in an academic setting.

Winning a five-year grant at a time when the NIH’s budget has become notoriously tight was a major coup.

“It’s an extraordinarily difficult funding time. The NIH cut lines are the lowest they’ve ever been, and because of that, funding success rates are quite low,” Nolin acknowledges. “I think we made a compelling case for the fact that this is an important area. It has a high likelihood of translating to improved therapies.”

He notes that chronic kidney disease affects about 14 percent of the population. And while Vitamin D is prescribed to kidney patients to help prevent bone disease, it’s unclear whether the vitamin also changes drug metabolism and transport within the body, and if so, how.

### Unanswered questions

What’s also unanswered is the impact of kidney disease on the metabolism of Vitamin D itself. The vitamin gets metabolized into an active form, but it is unclear whether adding or losing the vitamin impacts its own metabolism, since the very metabolic pathways involved in Vitamin D’s biochemical conversion are the same type of pathways that are affected by kidney disease.

The vitamin undergoes two activation steps: one in the liver, one in the kidney. That means the activated form of Vitamin D that prevents

bone disease is not formed in kidney patients regardless of how much Vitamin D doctors give them, or how much sunlight they get, because their kidneys can’t complete the final activation step. Historically, doctors circumvent this problem by administering an active form of the vitamin, bypassing the two upstream activation steps.

But within the past few years, researchers have noticed that dietary forms of the vitamin have benefits that aren’t seen in kidney patients who only get the activated form. To cover all their bets, doctors often provide both forms of the nutrient, “but we really aren’t sure which form is best, whether one or both are necessary, and our hope is this grant will begin to help us clarify,” says Nolin.

He estimates that 80 patients will participate in the study, which is already underway.

“It’s the right grant going to the right study section at the right time,” he says, adding that he believes the study could translate into better care “for a very large segment of our population.”

Thomas Nolin '99, '03 (center), with his team, (left to right) lab manager Jake Ocque, and graduate students Dustin Walsh, Alexander Prokopenko, and Osama Alshogran



# Q&A

JULIE GAMBAIANI (PHARM D '99)

*Julie Gambaiani, PharmD, '99 BC-ACP, runs a mobile medication therapy management (MTM) program serving Genoa Healthcare's patients with mental illness in Minnesota. The American Pharmacist Association recently honored Gambaiani as a 2014 Immunization Champion.*



## **Why did you pursue this particular area of pharmacy: Immunizations to people with mental illness?**

Immunization has been a hot topic for pharmacists now that pharmacists can immunize in all 50 states to some capacity. It's a good way to show that pharmacists can help in the area of public health and it makes a lot of sense in my patient population. People who are living with mental illness are often indigent; they don't seek out primary care. My board certification is as an ambulatory care pharmacist, and I have been immunizing since I became certified in 2005. I kind of created my current position for myself as a way to immediately have an impact and bring in revenue. It takes time and referrals to build up an MTM business, so immunization was a start. There is a huge push for flu shots each fall, so I realized "Why stop at flu shots? These patients are

smokers and they need pneumococcal vaccine. We have a whooping cough outbreak; they need Tdap."

## **Where do you administer the immunizations?**

We work with a variety of mental health agencies, so sometimes it's in a drop-in clinic when patients come to see their therapist or psychiatrist. We also administer in home health care settings or through targeted case management in an office where mental health case managers work. The mental health caseworkers and other ancillary personnel say, "Hey we're going to do a flu shot clinic at our office on this date and time." So I'm really traveling around with the vaccine pack in a cooler with a probe. We also do flu shot clinics at the mental health agencies for employees.

## **What were some of the obstacles you faced with treating this population?**

The largest obstacle was efficiently scheduling all the agencies that accepted our offer to vaccinate at their facility. With more than 25 facilities visited in a six-week span, there was a lot of coordination and travel involved.

## **So it wasn't that big of an obstacle dealing with this patient population?**

Part of what I'd like to do is to debunk the myth that patients with mental illness are going to be dangerous or combative. I truly believe in health care for all. What if that person is your aunt or your brother? I believe you'd want someone to take care of them and provide them with the care that they need, whether they know they need it or not.

## **How did you overcome these obstacles?**

In my experience, being personable, relatable, and genuine helps set people at ease. Patients with mental illness are no different. As far as

immunizing goes, showing patients what you are doing while preparing the vaccine and explaining what to expect from the experience can ease their anxiety. As for scheduling logistics, I rearranged my days so that I was present at the times requested by the facilities; my goal was to ensure maximum participation in these immunizations. If there is a will, there is a way, and being flexible was key in accomplishing this initiative.

## **What class or experience prepared you the most for your pharmacy career?**

Learning to be open to new experiences, even if I didn't necessarily understand why I was doing an assignment at the time was important. Collectively, those experiences made a great foundation of skills so that I could choose to practice and make a difference. Did I leave school and say, "I'm going to go find a job that allows me to immunize in the mental health population?" No, I don't think I did. Keeping my mind open and thinking of experiences and opportunities as pieces in a puzzle built confidence. At some point, these pieces made a whole puzzle and I was able to put those skill sets to use in a meaningful way.

## **Did your view of a pharmacy change much from student to a pharmacist?**

I entered the profession when the change to PharmD was occurring. The PharmD has changed the profession in many ways, reflecting more clinical roles. Although being the most accessible health care professional is still important and should be preserved, how that looks in the community pharmacy today is different than when I entered the profession 15 years ago.

**What change(s) do you envision for the future of pharmacy?**

I hope that comprehensive medication management becomes the norm for the profession. When I leave the profession, I hope that clinical pharmacist services are accepted by all insurance plans, both public and private. I hope that we continue in a public health role as immunizers and expand our roles in that capacity in all 50 states. I had the opportunity to create my ideal position at a fairly young stage in my professional life and hope that other pharmacists can continue to “create” positions to better serve our patient population. We have so many young pharmacists who are ready and willing to create change in our healthcare system that desperately needs it. We must capitalize on that resource.

**What advice do you have for our present student pharmacists?**

I challenge student pharmacists to use their extensive training and become leaders for change in the profession of pharmacy. Be open to new experiences. Use your deep sense of professionalism to show that you have something to offer. Be the change you want to see in pharmacy. Be politely disruptive so that you’re pushing the envelope to make things better. You have a skill set to be used as well as it can be. You don’t have to accept the status quo.

# NEW FACES: STAFF

**Sherri Peterson, BS**

Peterson is the administrative assistant for the Center for Clinical Pharmaceutical Sciences. She began her career as a sales associate at Kaufmann’s Department Store. While working at Kaufmann’s, she enrolled at the University of Pittsburgh, graduating in 1989 with a BS in elementary education and a certificate in children’s literature. Peterson enjoyed what she was doing at the moment, but after all those years, she is now working in education and at her alma mater.



**Teresa Cameron**

Cameron is the new postaward administrator for the School of Pharmacy. She worked for more than five years for the University’s Research Cost Accounting Department. At Research Cost Accounting, Cameron assisted many different departments, including the School of Pharmacy, with postaward accounting. As a postaward administrator, she will be reconciling sponsored project accounts.



**#1**

The School of Pharmacy’s alumni ranked #1 in life memberships in the Pitt Alumni Association in schools and programs with more that 100 alumni

# NEW FACES: FACULTY

## **Lucas A. Berenbrok, PharmD**

Assistant Professor,  
Pharmacy and Therapeutics

Lucas A. Berenbrok is an assistant professor in the department of pharmacy and therapeutics. He received his doctorate of pharmacy from the University of Pittsburgh School of Pharmacy in the spring of 2013 and completed a postgraduate year one residency in community practice with Kerr Drug/Walgreens and the University of North Carolina Eshelman School of Pharmacy in Chapel Hill, N.C. While in North Carolina, he focused on expanding community-based care through immunizations, diabetes education, and medication therapy management. His research has concentrated on community pharmacist provided services and its impact on ensuring quality patient care.

## **Jennifer A. Pruskowski, PharmD, BCPS, CGP**

Assistant Professor,  
Pharmacy and Therapeutics

Jennifer A. Pruskowski received her PharmD from Wilkes University in Wilkes Barre, Pa., in 2011. She then completed a postgraduate year one pharmacy practice and postgraduate year two geriatric residency from the Williams Jennings Bryan Dorn Veterans Affairs Medical Center in Columbia, S.C., as well as an Inter-professional Palliative Care Fellowship at the James J. Peters Veterans Affairs Medical Center in Bronx, New York, N.Y. Pruskowski is a board certified pharmacotherapy specialist and a certified geriatric pharmacist, and has received specialized training in pain management from the American Society of Consultant Pharmacists. Her clinical practice site is the University of Pittsburgh Medical Center (UPMC) Palliative Supportive Institute (PSI) as the Palliative Care Clinical Pharmacy Specialist.

## **Bridget T. Walker, MBA, RPh Director of MSBPA Program**

Assistant Professor,  
Pharmacy and Therapeutics

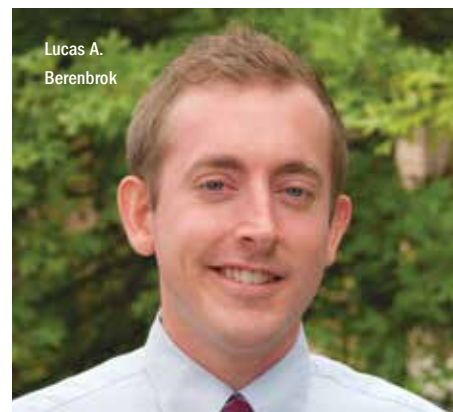
Bridget T. Walker received her Bachelor of Science in 1995 from the University of Pittsburgh School of Pharmacy. After receiving her pharmacy degree, Walker spent three years in the community pharmacy sector as a staff pharmacist. She then spent eight years at Armstrong County Memorial Hospital, serving in the roles of pharmacy supervisor, director of pharmacy, and ultimately pharmacy and imaging services administrator. Walker most recently served as the system director of pharmaceutical care for Heritage Valley Health System. In 2014, she completed the Executive Masters of Business Administration program at the Joseph M. Katz Graduate School of Business at the University of Pittsburgh. She was selected to join Beta Gamma Sigma, a distinguished honorary society for business excellence.

## **Da Yang, MD, PhD**

Assistant Professor,  
Pharmaceutical Sciences

Yang received his Bachelor of Medicine from the Harbin Medical University in China and his PhD in pharmacology and genomics. Yang was an Odyssey Fellow at the University of Texas MD Anderson Cancer Center. Yang has been intensively involved in the Cancer Genome Atlas Project, which is an unprecedented effort to build comprehensive genomic and epigenetic maps of human cancers types. His research focus is integrating multiple-dimensional genomic data and functional approaches to better characterize tumors and identify novel therapy. Yang has published 35 scientific papers, including in *JAMA* and *Cancer Cell*. His research has aroused a great deal of interest and has been extensively covered nationally and internationally. He has received the Bristol-Myers Squibb Award in Clinical/Translational Research (2013) in addition to being a two-time recipient of the The Diane Denson Tobola Fellowship in Ovarian Cancer Research (2012, 2013).

## Where We Are Going



Lucas A.  
Berenbrok



Jennifer A. Pruskowski



Bridget T. Walker



Da Yang

# Exit Interviews

2014 GRADUATES

## UPASANA MARWAH

**Graduating with which Pitt degree(s):** Bachelors of Science in pharmaceutical sciences and Doctor of Pharmacy **Hometown:** Rochester, N.Y. **Favorite Pitt Memory:** Attending my first Pitt basketball game **Six words to sum up your Pitt experience:** Amazing journey to be a better pharmacist! **Where do you go from here?:** I will be joining the Rutgers Pharmaceutical Fellowship Program in New Jersey as a promotional compliance fellow at Johnson & Johnson.

## JESSA MARIE KOCH

**Graduating with which Pitt degree(s):** Bachelors of Science in pharmaceutical sciences and Doctor of Pharmacy **Hometown:** Bethel Park, Pa. **Favorite Pitt Memory:** Time spent volunteering at the Birmingham Free Clinic and at a men's rehabilitation center. These experiences enabled me to provide services to those in need in Pittsburgh as well as to learn from my faculty preceptors and mentors. **Six words to sum up your Pitt experience:** A perfect combination of scholarship, research, and patient care. **Where do you go from here?:** Pharmacy residency at the Chillicothe Veterans Affairs Medical Center in Chillicothe, Ohio

## NICOLE C. PEZZINO

**Graduating with which Pitt degree(s):** Bachelors of Science in pharmaceutical sciences and Doctor of Pharmacy **Hometown:** Nazareth, Pa. **Favorite Pitt Memory:** My favorite Pitt memory was having the opportunity to travel the country and the world with some of my best friends through pharmacy rotations, and the most amazing thing was that no matter where I was—Italy, London, Paris, New Mexico, Seattle, Colorado—everyone knew Pitt. **Six words to sum up your Pitt experience:** The best years of my life **Where do you go from here?:** I will be completing a PGY1 community pharmacy residency at University of North Carolina

## SANDRA KWARTENG

**Graduating with which Pitt degree(s):** Bachelors of Science in pharmaceutical sciences and Doctor of Pharmacy **Hometown:** Matteson, Ill. **Favorite Pitt Memory:** Too many to list one! Becoming an RA, getting into pharmacy school, going to Ghana for my first rotation, graduating :) **Six words to sum up your Pitt experience:** Exciting, Challenging, Rewarding **Where do you go from here?:** PGY-1 pharmacy practice residency in Memphis, Tenn.

## EMILY MALLIT

**Graduating with which Pitt degree(s):** Bachelors of Science in pharmaceutical sciences and Doctor of Pharmacy **Hometown:** Murrysville, Pa. **Favorite Pitt Memory:** Receiving my pharmacy school white coat, graduating, and all the good times in between with the Class of 2014 **Six words to sum up your Pitt experience:** Environment for personal and professional growth (Hail to Pitt!) **Where do you go from here?:** consultant pharmacist and director of clinical services at GardaRx Long Term Care Pharmacy

## KYLE MCCORMICK

**Graduating with which Pitt degree(s):** Bachelors of Science in pharmaceutical sciences and Doctor of Pharmacy **Hometown:** Somerset, Pa. **Favorite Pitt Memory:** Road trip to an American Pharmacists Association—Academy of Student Pharmacists meeting with classmates Brahim Shettima, Ravi Patel, Sudha Mokkupati, Anna Bondar, Sam Becker, and Jessa Koch. **Six words to sum up your Pitt experience:** Great school; personalized education, fun, friends **Where do you go from here?:** I will be starting a community pharmacy residency with Pitt School of Pharmacy and Gatti Pharmacy in Indiana, Pa.

# Check It Out

## Safar Symposium for Resuscitation Research Recognizes PittPharmacy Graduate Students

Graduate students **Fanuel Hagos** and **Solomon Adams** were awarded best oral presentation and best post poster in critical care medicine respectively at the Safar Symposium for Resuscitation Research annual meeting in Pittsburgh May 2014. The 12th Annual Safar Symposium is a two-day multidisciplinary research conference held jointly by the Safar

Center for Resuscitation Research and the Peter M. Winter Institute for Simulation Education and Research (WISER) in the University of Pittsburgh School of Medicine. Fanuel Hagos, BS, MS, won best oral presentation for his research *Co-administration of Probenecid increases N-Acetylcysteine systemic and brain concentrations: Implications for Traumatic Brain Injury*.

**Solomon Adams**, PharmD, won best poster in the Critical Care Medicine category for his poster *ABCG2 rs2231142 is associated with outcomes following severe traumatic brain injury*. Philip Empey, PharmD, PhD, BCPS, is the primary advisor for both Adams and Hagos. Research is a collaborative effort in laboratory of Philip Empey PharmD, PhD, BCPS and investigators at the Safar Center for Resuscitation Research, School of Nursing, and Department of Critical Care Medicine.



Fanuel Hagos



Solomon Adams

## Drug Abuse Project Earns Generation Rx Award

The PittPharmacy APhA-ASP chapter was presented the Region 2 Generation Rx award at the 2014 APhA Meeting in Orlando, Fla. The Patient Care Committee diligently worked with several projects to educate the greater Pittsburgh area about the dangers of prescription drug abuse.

Clockwise top, Danielle Mayer (Class of 2015), Katie McGuire (Class of 2015), Meera Vachhani (Class of 2016)



Leading these efforts were Patient Care vice presidents **Katherine McGuire** and **Meera Vachhani**, along with Generation Rx Committee Chair **Danielle Mayer**.

Other student organizations collaborated with APhA-ASP throughout the year to develop projects relating to the issue of prescription drug abuse. Projects reached various populations such as parent-teacher organizations, high school students, the Girl Scouts, and undergraduate students of the University of Pittsburgh.

The PittPharmacy APhA-ASP chapter was recognized on stage at the APhA-ASP Awards Ceremony for its work in helping to educate the public through Generation Rx.

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### **Transplant Specialty Resident Lauren Sacha Awarded Best Presentation**

**Lauren Sacha**, PharmD, PGY2 transplant specialty resident, won the Clinical Case Dilemmas in Thoracic Transplantation Best Presentation Award for the Junior Faculty/Trainee Counsel at this year's annual meeting for the International Society for Heart and Lung Transplantation.

Sacha's presentation *Carfilzomib for Refractory Antibody Mediated Rejection and Allo-sensitization in Heart Transplantation* described novel work with the proteasome inhibitor carfilzomib in cardiac transplantation.

In addition to the award, Lauren will receive free registration to next year's meeting in Nice, France.

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### **Shelia Grab Receives GPSG Leadership and Service Award**

The Graduate and Professional Student Government (GPSG) of the University of Pittsburgh awarded the 2013–14 Leadership and Service Award to PittPharmacy graduate student **Shelia Grab**. This award acknowledges the service or leadership that graduate and professional students provide to the University of Pittsburgh, the surrounding community, and to the world at large.

As quoted from Grab's acceptance letter: "We had a number of applicants this year for just four awards, but your application was among the best. Keep up the good work!"



Shelia Grab



Lauren Sacha

The purpose of the awards are to recognize and reward outstanding service or leadership by graduate and professional students at Pitt; make service by graduate and professional students more visible and valued on campus; contribute to or spark discussions about what constitutes good leadership and service by graduate and professional students on campus; help graduate and professional students prepare professionally for careers after graduation.

**Donna Huryn**, PhD, was appointed associated editor for ACS Medicinal Chemistry Letters. ACS Medicinal Chemistry Letters publishes brief communications on experimental or theoretical results of exceptional timeliness in all aspects of medicinal chemistry (pure and applied) and its extension into pharmacology. The journal publishes studies that range from compound design to optimization, biological evaluation, drug delivery, and pharmacology.

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### **Skledar Appointed ASHP Steering Committee Chair**

**Susan Skledar**, RPh, MPH, FASHP, has been appointed to serve as 2014–15 Chair of the American Society of Health-System Pharmacists (ASHP) Section of Inpatient Care Practitioners Educational Steering Committee.

This committee is responsible for developing educational content for pharmacists at the ASHP Midyear Clinical Meeting, content for the American Journal of Health-System Pharmacy, and for Safemedication.com, a consumer Web site for drug information.

# Investing in the Future

**DREAM (PHARMACIST)  
+ HARD WORK (REALITY)**

**= MARIA A. FELTON (CLASS OF 2017)**



**W**hen Maria Felton was in the fifth grade her school project was to prepare a poster and visit a site for her dream career. Maria's dream was to be a pharmacist and her field trip was to a local pharmacy in Davidsville, Pa.

Fast forward a few years and Felton is in the final stretch of her career choice at PittPharmacy. She is a P4 student and will be part of the graduating class of 2015. Felton's story came to us via her mom, Diane Felton, along with the photos of the poster. Like any proud Pitt parent, she wanted to share her daughter's accomplishments.

"I wanted to share the attached two pictures of a poster that Maria completed as a fifth grade project, "What I Want to Be When I Grow Up."

It's hard to believe that Felton is less than one year away from realizing her life long dream of becoming a pharmacist. So I would like to say thank you to everyone in Pitt's pharmacy program—you do help make dreams come true!"

Felton is a scholarship recipient so your financial support of our students does make dreams come true.

For more information on scholarship donations contact Meg Osborne at [omeghan@pitt.edu](mailto:omeghan@pitt.edu).



## WW II VET JOINS 1787 SOCIETY

Don A. Burgett (BS '53) has become the School of Pharmacy's newest member of the 1787 Society. A proud World War II veteran, Burgett was a member of the Fox Co., 110th Battalion, 28th infantry division. Burgett was a replacement rifleman in the Battle of the Bulge, one of WWII's largest and most notorious battles fought by the United States. Burgett remains an active member of his church, the St. Thomas Catholic Church in Lenoir City, Tenn. He is also passionate about his community and the St. Jude League of Chicago, Ill.

Burgett is the founder of Tellico Boater's Assistance Response Team (T-BART) in Tellico Village, Loudon, Tenn. Burgett founded T-Bart "a zillion years ago" when he was vice president of the Tellico Village Home Owners Association. Burgett, an experienced boater, was urged to form the organization after a fellow homeowner had drowned. T-Bart is now an integral piece of Tellico Village and currently boasts over 85 members.

The University of Pittsburgh School of Pharmacy is thankful for a friend like Don Burgett. For more information about the 1787 Society, please contact Meg Osborne, 412-648-8186.



## PHARMACY LEGACY CONTINUES THROUGH RESEARCH



Kerry Empey, John-Craig Borman (son), Gary Borman, Carol Borman, Robert Gibbs, Melissa McGivney, and Samuel Poloyac

In June 2008, PittPharmacy received a tremendously generous bequest in the amount of \$1 million from Betty Howard Brenneman, a graduate of the School of Pharmacy Class of 1942. This award surpassed everyone's expectations and established a new line of support, the Brenneman Endowment, for advancing pharmacy research and education at the school.

Since Betty Brenneman's passing in 2006 (husband David passed in 2004), David's godson Gary Borman and his wife, Carol, have closely followed the Brenneman's legacy at PittPharmacy. Both Bormans remember Betty Brenneman's entertaining stories about her days at Pitt and carry on her interest in new developments at the school. Long-standing University of Pittsburgh supporters, the Bormans have three daughters and two sons-in-law who attended Pitt. Not surprisingly, their high school-aged son is now considering Pitt for his college choice.

During an admissions-related campus visit in June, Gary, Carol, and son John-Craig Borman visited Salk Hall to learn about the ground-breaking research that continues with support from the Brenneman Endowment. Past and current Brenneman Award winners, including faculty members Kerry Empey, Robert Gibbs, Melissa Somma McGivney, and Sam Poloyac, joined the Borman family to share the details of their research projects

which were supported by the endowment.

Faculty member Kerry Empey in the department of pharmacy and therapeutics described her study of respiratory syncytial virus (RSV), the single most common cause of lower respiratory tract infections (LRTI) in children worldwide, with an estimated 33.8 million new episodes each year and up to 199,000 deaths. A vaccine given shortly after birth would most effectively reduce morbidity and mortality. With support from the endowment, her lab is dedicated to determining the mechanisms that contribute to impaired T-cell function in order to advance RSV vaccine strategies and immunotherapy.

Assistant Dean for Community Partnerships Melissa Somma McGivney allocated the award towards the development of the school's community-based education and research. Specifically, she collaborated with the Pennsylvania Pharmacists Association and University Pharmacy to create a community pharmacy residency position to advance the care provided on campus to students, faculty, and staff through University Pharmacy. The residency position also supports the evolution of the Pennsylvania Pharmacists Care Network (PPCN), which will create a fundamental link between community pharmacists throughout Pennsylvania to provide care to patients and to foster research throughout the commonwealth. The award also supported a number of fellow, resident, and student research projects focused on how pharmacists can more fully engage pa-

**“The best way for students to become interested in research is by personalizing their education through a direct hands-on experience.”**

—Samuel Poloyac

tients and physicians in the community.

Professor Robert Gibbs in the Department of Pharmaceutical Sciences used the award to advance his work to identify novel therapeutic strategies for reducing the effects of aging on the brain and preventing age-related cognitive decline, particularly in women. The Brenneman Award supported lab personnel and paid for animal care costs. Supporting these costs helped the lab to complete studies evaluating the benefits of combining two Alzheimer's drugs with estrogen replacement to reduce cognitive impairment. The support also helped the lab to conduct preliminary studies that contributed to the successful submission of a grant to the National Science Foundation and to four publications.

Associate Professor Sam Poloyac in the Department of Pharmaceutical Sciences allocated the award to his studies to improve the care of the most critically ill patients in the intensive care unit. The most devastating consequence in critically ill patients after a stroke or cardiac arrest is decreased brain function. Poloyac's work is specifically directed at improving brain recovery after injury by developing novel protective therapies and preventing injurious complications, such as seizures, in both adults and children.

All of the faculty awardees stressed the impact the Brenneman Award has on training the next generation of pharmacy students and researchers. Poloyac suggests, “The best way for students to become interested in research is by personalizing their education through a direct hands-on experience.” The generous support of the Brenneman Award makes these research experiences a reality.

# Alumni Society Message

## Message from the President of the Alumni Society 2014



What is the legacy you are leaving at Pitt?

My journey to Pitt began as a pediatric cancer patient, hearing about phenomenal Pitt clinical pharmacists. As a University of Pittsburgh School of Pharmacy class of 1998 graduate, I was able to participate in one of the last BS classes and then the PharmD program. I am grateful for my Pitt education and connections. I am now honored to serve as president of the Alumni Society for the 2014–15 academic year, bringing to you my experience with networking, big data, and enthusiasm for patient wellbeing.

On behalf of the Alumni Society, I would like to thank each of you for developing a rich network of talent and passion for patient care. Our students benefit from your experience and expertise in pharmacy and the health care environment. In this rapidly changing and competitive health care landscape, your leadership and support of students' education, and financial contributions provide opportunities, scholarships, and innovative experiences for our students.

Every year, the Alumni Society hosts several fun, social events that promote mentoring and networking between students and alumni. I encourage you to consider joining us for the Career Roundtable, The Gordon Vanscoy White Coat Ceremony, The Joseph A. Gatto Scholarship Golf Invitational, Homecoming Reception, and the stunning Gala.

Stay connected to the Pitt School of Pharmacy through Facebook, LinkedIn, Tumblr, and Twitter. Visit the school's Web site at [pharmacy.pitt.edu](http://pharmacy.pitt.edu) to reconnect with old friends, share a story about your experiences at Pitt, and watch the progress of the new Salk Pavilion and the DNA Wall of Donors.

The faculty and administration at the school are committed to delivering an unparalleled experience for the students that prepares them to lead in the profession of pharmacy.

I would like to thank Dean Patricia D. Kroboth, Meghan Osborne, our alumni coordinator and all of the members of the Alumni Society Board for their focus on engagement with the students and networking with other alumni for career development. I look forward to a successful year where we can all leave our legacy at Pitt School of Pharmacy!

Hail to Pitt,

Diane Kilian Ammerman, PharmD, 1998



Alumni Society President  
Diane Ammerman (left)  
with Madeline Chavara  
(class of 2017) at  
the Student Industry  
Organization Mixer  
September 2014.

## PHARMACY ALUMNI SOCIETY BOARD 2014–15

### EXECUTIVE BOARD

Chairman of the Board  
Ernest Sanchez '02

Past President  
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Diane Ammerman '98

Vice President  
Christopher Miller '08

Secretary  
Mark Garafoli '04

Golf Committee Cochairs  
Timothy Davis '97 '00  
Tyler Gnesda '07

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Tanya Fabian Horner '98, '03

Christopher Baldini '88

Kathleen Bartony '76

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Bernard Komoroski '00, '05

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Kara Sperandeo '06

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Kristen Topolosky '07

Janet Traynor '87, '95

Oriyomi Alimi '12

### STUDENT REPRESENTATIVES

Kyle McGrath '15

Christina Xia '16

Kerry Moore '17

Mara Ott '18

### EX-OFFICIO MEMBERS

Dean  
Patricia D. Kroboth '80, '83

Alumni Coordinator  
Meg Osborne



**PUT YOUR NAME HERE.**

**THE NEW BRICK  
WALKWAY AT SALK  
PAVILION!!!**

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Join the more than 556 individuals who have already donated to the School of Pharmacy's Brick Walkway. In return for your \$750 tax-deductible pledge, a brick will be inscribed with your name or with the name of a family member or friend.

You will receive a certificate commemorating your gift, and the brick will be added to the new walkway in front of Salk Pavilion.

For more information contact Meg Osborne, 412-648-8186.

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# University of Pittsburgh

## School of Pharmacy

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