



School of Pharmacy

2014

Annual Report



Dear Colleagues,

I am pleased to present to you the 2014 Strategic Plan Report of the UMKC School of Pharmacy. The annual report for the school provides ample documentation that our students, staff and faculty had a tremendously productive and successful year in 2014!

The year marked continued successes for students, staff and faculty at the school. Once again, our school continued to bring prestige and international visibility to UMKC and the University of Missouri System. Faculty and staff led our pharmacy and graduate students to significant successes. In continuing a long tradition, our pharmacy student organizations were recognized among the top chapters in the country! Doctor of pharmacy graduates performed well and above national averages on the NAPLEX and MPJE licensure exams, and many went on to match in prestigious residency positions. Our doctor of philosophy students also continued to shine and bring prestige to UMKC by winning international research awards and publishing cutting-edge research articles in highly regarded international scientific journals. Our doctor of pharmacy and doctor of philosophy graduates in 2014 found outstanding postdoctoral training opportunities or jobs in clinical practice, academia, pharmaceutical industry or regulatory organizations.

In addition to the extraordinary activities and accomplishments emanating from our mission-driven efforts in instruction, research and service, 2014 was marked by three major additional milestone events. First, our focused self-study for expansion of the pharmacy program to Springfield led to a site visit by the Accreditation Council for Pharmacy Education (ACPE) in April and culminated with enrollment of our first cohort of 30 students in August. Second, school stakeholders spent significant time and effort in building our new 2015-2020 Strategic Plan that was approved by faculty and staff in early 2015. Further, we kicked off our comprehensive self-study for consideration by ACPE for continued accreditation of our pharmacy program.

All of this would not have been possible without the hard work and dedication of our students, staff and faculty. And, we are also thankful for state financial support and assistance from our partners at the University of Missouri in Columbia, Missouri State University, UMKC and the University of Missouri System.

Please enjoy reviewing all of the outstanding accomplishments of our students, staff, and faculty in this annual report.

Sincerely,

Russell B. Melchert, Ph.D., R.Ph.
Dean and Professor

UMKC and School of Pharmacy Mission, Vision and Core Values

The University of Missouri-Kansas City (UMKC) is composed of 12 academic units, and the School of Pharmacy is one of four health science units. The School of Pharmacy contributes significantly to the university's mission to lead in the life and health sciences, to develop a professional work force and to collaborate on urban issues.

University Mission

UMKC's mission is to lead in life and health sciences; to deepen and expand strength in the visual and performing arts; to develop a professional workforce and collaborate in urban issues and education; and to create a vibrant learning and campus life experience.

School of Pharmacy Mission

To educate, innovate, discover, engage, and serve to improve health.

University Vision

UMKC will become a model urban research university characterized by signature graduate and professional programs, a dynamic undergraduate population, a highly diverse faculty, staff and student body, and active engagement with its city and region.

School of Pharmacy Vision

Shaping the future of healthcare, improving lives

The school's core values represent the cultural and personal principles that guide school-related decision making and individual conduct. Members of the school are committed to the following core values when acting on behalf of the school:

Leadership: We lead with courage and vision while considering the needs of our people.

Professionalism: We act with integrity, honesty, reliability, ethics, moral courage, humility, respect, and accountability.

Service Orientation: We serve others in an altruistic and cooperative manner.

Community: We care about others by being a learning organization that enriches and values our human wealth and promotes civility, diversity, and mutual respect.

Collaboration: We engage in creative partnerships locally and globally to advance health education, research, and practice.

Innovation: We seek and develop resources, infrastructure, and knowledge to promote discovery.

Excellence: We strive for excellence in all we do.

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Strategic Initiative I. Curriculum:

Deliver state-of-the-art curricula that prepare graduates who meet the needs of society

The current strategic plan was implemented in 2009. At the time, the School of Pharmacy offered three degree programs: a bachelor of science in pharmaceutical sciences (BS/PS), the doctor of pharmacy (Pharm.D.), and the interdisciplinary doctor of philosophy (IPhD). In 2010, the faculty voted to close admissions to the BS/PS degree program due to low enrollment and work force demand. The last student in the program graduated in May 2014.

A major curricular change was implemented in the Pharm.D. program. The faculty voted in December 2009 to change from a 1-5 to a 2-4 curriculum. Our program was the only 1-5 Pharm.D. program; the vast majority of programs are 2-4 in length. This change resulted in suspension of new admissions for the 2011-2012 academic year with an initial 2-4 class enrolled in fall 2012. Another major change to the Pharm.D. program was the expansion to a third site. Thirty students began classes at the UMKC School of Pharmacy at Missouri State University (MSU) site in Springfield in fall 2014. The expansion is supported by funding from the state legislature and is expected to meet regional needs.

Graduate students enrolled in the IPhD program develop individual plans of study. The opportunity to collaborate with faculty and peers on funded research projects is a key component of exemplary graduate education. Our graduate students continue to receive outstanding research training as part of their graduate curriculum.

Goal I.A. Pharm.D.: Graduate generalist pharmacists who are capable of practicing in a range of contemporary settings

Objective I.A.1. Align curricular outcomes with the latest ACPE standards, other relevant documents and feedback from key constituent groups

Objective I.A.2. Develop and implement learning experiences that optimize student achievement of curricular outcomes

Objective I.A.3. Initiate interprofessional experiences with other schools/academic units that capitalize on shared curricular outcomes

Objective I.A.4. Align practice faculty placements to meet curricular needs

Objective I.A.5. Sustain a number of students participating in post-graduate training and degree opportunities consistent with national norms

Measures of Success:

- Ongoing ACPE accreditation
- Number of interprofessional experiences available and number of students who participate
- Number of international rotations developed and number of students who participate
- On-time graduation rate
- NAPLEX pass rate first attempt percentage
- MJPE pass rates
- Percentage of students employed or enrolled in post-graduate training (School of Pharmacy exit interview)
- Students pursuing post-graduate training
 - Number of students placed in residencies as reported in the ASHP report for the resident matching program and post-match scramble
 - AACP graduating student survey data

Accreditation Activities

The doctor of pharmacy program is fully accredited by the Accreditation Council for Pharmacy Education (ACPE). Our last comprehensive self-study was conducted in 2009-2010. Interim reports have been completed each year. The next comprehensive self-study is scheduled for November 2015. A summary of accreditation reporting and activity between 2009-2014 follows:

- ACPE:
 - October 2010: Interim report for standard 14
 - May 2011: The interim report includes brief descriptions for standards 13, 15, 24, 25, and 30. Standards 13, 25, and 30 required one brief description each; standards 15 and 24 required two brief descriptions each.
 - November 2011: Voluntary report on retention
 - October 2012: Monitoring of student retention for class of 2011 (brief report)
 - November 2012: An overview of the school's expansion plans
 - October 2013: Monitoring of student retention for class of 2012 (brief report)
 - November 2013: Focused self-study for the program's planned expansion to Springfield
 - April 2014: Interim report for standard 30
 - April 30–May 1, 2014: ACPE site visit for the focused self-study (program expansion)
 - October 2014: Monitoring of student retention for class of 2013 (brief report)
- ASHP:
 - September 2012: American Society of Health-System Pharmacists Commission on Credentialing granted three-year reaccreditation of the postgraduate one-year community pharmacy residency program
- University:
 - June 2012: Missouri Department of Higher Education's Coordinating Board for Higher Education stated its approval for the expansion to the Missouri State University campus.
 - May 2013: UMKC multi-location report and site visit for the Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604.



UMKC School of Pharmacy at MSU

Interprofessional Education (IPE)

UMKC administrators and health professions faculty made IPE a priority in 2011. A steering committee led by health science deans and comprised of faculty from across the health science professional programs was formed. Subgroups were charged with developing different aspects of IPE – Curriculum, Assessment, Research, Social Activity, and Global Health. Members of the curriculum subgroup representing the four health science schools attended the 2012 IPEC Institute hosted by AACP with the goal of integrating IPE into the curriculum of UMKC health professional degree programs. Their efforts paved the way for the first large-scale curricularized Hospital Hill IPE learning activity on February 21, 2014. Over 500 students participated from all four schools on the health science campus (Pharmacy, Nursing and Health Sciences, Dentistry, and Medicine). Faculty and administrators served as small group facilitators. The activity included assigned pre-readings, a pretest, lecture, video, small group work, a learning assessment, and a post-activity evaluation. The activity was integrated into a P1 class for pharmacy students. A second large-scale activity was implemented in September 2014 with our P2 students. Again, over 500 health science students participated with learning facilitated by health science administrators and faculty. A second team of faculty attended the 2015 IPEC institute in May.

The steering group of faculty and administrators from the UMKC health sciences schools continues to meet on a regular basis to sustain and continue to enhance IPE activities on the UMKC campus.

IPE is flourishing on the University of Missouri campus as well and one of our Columbia-based faculty members is serving as the pharmacist on a team of interprofessional educators at MU. Funding was gained from the Macy Foundation to create an interprofessional faculty development training program. As a result of this collaboration, an IPE activity for Pharm.D. students was introduced into Pharmacotherapy III in spring 2013 and has been an integral part of the OSCE for P3 students. UMKC pharmacy and MU nursing students completed a station together during the course OSCE at the MU simulation center.

The 2014 Health Sciences Student Research Summit was held at the Student Union on the UMKC Volker Campus on April 17. The goals of the summit are to promote student health-related research at UMKC, to provide a venue for students to present their work and interact with other students and scientists, and to promote opportunities for faculty and students among the various schools to interact, learn about similar research on campus, and develop new interprofessional-interdisciplinary research collaborations. Organization and planning of the research summit was carried out by a planning committee composed of deans or associate deans for research, or their designees from the Schools of Biological Sciences, Dentistry, Medicine, Nursing and Health Studies, and Pharmacy. All UMKC graduate students, professional students, residents, and post-doctoral fellows from the Schools of Biological Sciences, Dentistry, Medicine, Nursing and Health Studies, and Pharmacy, as well as the Department of Psychology in the College of Arts and Sciences, the Vision Research Center, and others in health-related fields, were invited to submit abstracts summarizing the results of their research projects and to provide poster presentations on the day of the summit. A total of 110 posters were presented during the 2014 event. Of those, 19 were from Biological Sciences, 21 from Dentistry, 33 from Medicine, 4 from Nursing and Health Studies, and 33 from Pharmacy.

International Rotations

- Three students completed a month-long rotation in Nicaragua in April 2012.
- A rotation in Honduras was planned for July; however, it was cancelled when the U.S. Department of State issued a travel warning about the security situation in Honduras.

Graduation and Attrition Statistics for the Pharm.D. Program

Overall attrition rates are well within the standards set by ACPE. However, attrition due to academic dismissal for the classes of 2011, 2012, 2013, and 2014 have exceeded the 5% limit set forth in the ACPE policies and procedures (see Attrition and Retention table on page 23). The program is working to reduce attrition through more stringent and thorough admissions procedures and closer monitoring of student progression through the program. A student success program was implemented in the fall of 2011 to detect academic struggle throughout the semester and to intervene as needed. In addition, the curriculum changed from a 1-5 to a 2-4 program with the entering class of 2012 (graduating class of 2016). Over a third of our attrition occurred during the first year of the 1-5 program; therefore, we believe the change to the 2-4 may eliminate a significant portion of our attrition. Regular seminars and individual meetings with instructors are also being held to provide instructional and assessment improvement strategies.

2012 -2014 Pass rates for the North American Pharmacist Licensure Examination (NAPLEX) for UMKC and Comparator School

UMKC NAPLEX pass rates were comparable to neighboring programs. The pass rate for UMKC first-time NAPLEX examinees exceeded the national average in 2013 (95.93 vs 95.87) and 2014 (95.97 vs 94.88).

School Name	2012 Graduates				2013 Graduates				2014 Graduates			
	All attempts	Pass rate (%)	First-time attempts	Pass rate (%)	All attempts	Pass rate (%)	First-time attempts	Pass rate (%)	All attempts	Pass rate (%)	First-time attempts	Pass rate (%)
University of Missouri-Kansas City	113	93.81	107	93.46	128	95.31	123	95.93	127	96.06	124	95.97
Creighton University	151	100	151	100	180	96.67	178	97.19	154	98.05	151	98.01
Drake University	107	99.07	106	99.06	124	97.58	122	98.36	126	98.41	126	98.41
Southern Illinois University-Edwardsville	73	98.63	73	98.63	81	95.06	78	94.87	82	92.68	77	92.21
Southwestern Oklahoma State University	55	100	55	100	41	100	41	100	38	100	38	100
St. Louis College of Pharmacy	181	98.34	179	98.88	174	97.70	170	97.65	195	91.79	182	92.86
University of Arkansas	106	97.17	104	98.08	115	100	115	100	122	97.54	120	98.33
University of Illinois at Chicago	165	92.12	156	92.31	170	95.29	165	95.15	189	92.59	181	93.37
University of Iowa	115	96.52	112	97.32	115	93.91	109	93.58	101	97.03	100	97.00
University of Kansas	101	99.01	100	99.00	104	98.08	103	98.06	149	98.66	147	98.64
University of Nebraska	65	100	65	100	65	100	65	100	41	97.56	40	97.50
University of Oklahoma	117	100	117	100	108	95.37	105	95.24	112	99.11	111	99.10

2012-2014 Pass rates for the Multi-State Pharmacy Jurisprudence Exam (MPJE) for UMKC and Comparator Schools

The 2012-2014 pass rates for our program were high for the MPJE. Our pass rates were similar to our neighboring and urban peers who require the MPJE for licensure and our program MPJE pass rates exceeded the national pass rates for all accredited Pharm.D. programs for 2012-2014.

School Name	2012 Graduates				2013 Graduates				2014 Graduates			
	All attempts	Pass rate (%)	First-time attempts	Pass rate (%)	All attempts	Pass rate (%)	First-time attempts	Pass rate (%)	All attempts	Pass rate (%)	First-time attempts	Pass rate (%)
University of Missouri-Kansas City	87	98.85	87	98.85	110	95.45	106	96.23	99	96.97	96	96.88
Creighton University	40	100	40	100	40	95.00	38	94.74	31	100	31	100
Drake University	48	93.75	45	93.33	55	96.36	54	96.30	50	94.00	48	93.75

Southern Illinois University-Edwardsville	57	94.74	54	96.30	61	96.72	60	96.67	59	94.92	56	94.64
Southwestern Oklahoma State University	51	94.12	48	93.75	39	97.44	38	97.37	30	100	30	100
St. Louis College of Pharmacy	140	91.43	129	91.47	139	94.96	133	94.74	132	94.70	127	95.28
University of Illinois at Chicago	144	97.92	142	97.89	152	94.08	146	93.84	150	97.33	146	97.26
University of Iowa	67	92.54	63	93.65	76	96.05	73	97.26	56	98.21	55	98.18
University of Kansas	95	98.95	94	98.94	92	100	92	100	118	99.15	117	99.15
University of Nebraska	60	100	60	100	49	100	49	100	35	100	35	100
University of Oklahoma	93	93.55	87	93.10	75	100	75	100	96	97.92	94	98.94

Note: UAMS graduates do not take the MPJE exam and are therefore not included in this table

Pharm.D. Post-Graduate Employment and Training

CAREER CHOICES*	2009	2010	2011	2012	2013	2014
Pharm.D. Total N =	71	111	111	107	123	88**
Residency/Fellowship	20%	18%	30%	26%	23%	26%
Community Chain	38%	47%	35%	40%	49%	46%
Community Independent	14%	9%	6%	6%	9%	10%
Hospital	4%	7%	8%	7%	6%	10%
Industry (Sales/Clin Res)	0%	0%	0%	0%	0%	0%
Grad School	3%	0%	3%	0%	0%	1%
Other^	1%	3%	9%	4%	1%	2%
Unknown	1%	2%	5%	0%	0%	0%
Undecided	18%	17%	4%	17%	12%	0%

*Survey taken at time of graduation

^Govt, Military, Nucl., Benefits, Mail Order

** The 2014 PharmD exit survey was administered in October to assess employment at 6-months post-graduation. The response rate was lower than in previous years (70% vs ~100%). The 2014 data reflects only those responses. The graduating class size was 126 (98 in KC and 28 in Col).

Ninety-seven percent of the doctor of pharmacy class of 2014 was employed or had plans to enroll in post-graduate training at the time of graduation from the program.

UMKC Pharm.D. Placement in Residency Programs

In 2014, 1,584 residency programs (1,145 PGY1 and 439 PGY2) participated in the ASHP Resident Matching Program. More candidates applied than in the previous year: 5% more PGY1 and 18% more PGY2 applicants. A total of 2,640 PGY1 and 446 PGY2 positions were filled in the 2014 match.

The national match rate for PGY1 was 63.7% (2,640 matches/4,142 applicants), and the UMKC match rate was 65.2% (30 matches/46 applicants). An additional five UMKC applicants received residencies through the “scramble” or in programs not accredited by ASHP.

The national match rate for PGY2 was 67.9% (446 matches/657 applicants), and the UMKC match rate was 54.5% (6 matches/11 applicants). An additional four UMKC applicants received residencies through the early commitment process.

March 2014 counts for schools in the ASHP Resident Matching Program are shown in the following tables.

2014 Applicants for PGY1 programs, compared with neighboring publicly funded schools:

	REGISTERED	ACTV W/LIST	MATCHED	UNMATCHED
UNIVERSITY OF ARKANSAS	35	31	16	15
UNIVERSITY OF IOWA	53	44	35	9
UNIVERSITY OF KANSAS	55	48	38	10
UNIV OF MISSOURI - KANSAS CITY	56	46	30	16
UNIV OF NEBRASKA MEDICAL CENTER	15	13	11	2
SW OKLAHOMA STATE UNIVERSITY	14	9	6	3
UNIV OF OKLAHOMA HEALTH SCI CTR	26	21	13	8

2014 Applicants for PGY1 programs, compared with Urban 21 publicly funded schools:

	REGISTERED	ACTV W/LIST	MATCHED	UNMATCHED
FLORIDA AGRIC. & MECHAN. UNIV	63	37	9	28
UNIVERSITY OF ILLINOIS	80	68	48	20
WAYNE STATE UNIVERSITY	30	26	18	8
UNIV OF MISSOURI - KANSAS CITY	56	46	30	16
UNIVERSITY OF CINCINNATI	33	28	22	6
UNIVERSITY OF TOLEDO	34	28	16	12
TEMPLE UNIVERSITY	41	32	19	13
UNIVERSITY OF PITTSBURGH	42	36	30	6
UNIVERSITY OF HOUSTON	46	36	20	16
VIRGINIA COMMONWEALTH UNIV	51	40	27	13

2014 Applicants for PGY2 programs, compared with neighboring publicly funded schools:

	REGISTERED	ECP	ACTV W/LIST	MATCHED	UNMATCHED
UNIVERSITY OF ARKANSAS	2	1	1	1	0
UNIVERSITY OF IOWA	22	7	13	5	8
UNIVERSITY OF KANSAS	7	3	2	1	1
UNIV OF MISSOURI - KANSAS CITY	16	4	11	6	5
UNIV OF NEBRASKA MEDICAL CENTER	8	2	5	5	0
SW OKLAHOMA STATE UNIVERSITY	3	1	2	0	2
UNIV OF OKLAHOMA HEALTH SCI CTR	10	2	7	6	1

2014 Applicants for PGY2 programs, compared with Urban 21 publicly funded schools:

	REGISTERED	ECP	ACTV W/LIST	MATCHED	UNMATCHED
FLORIDA AGRIC. & MECHAN. UNIV	4	0	1	1	0
UNIVERSITY OF ILLINOIS	20	8	12	11	1
WAYNE STATE UNIVERSITY	13	3	9	5	4
UNIV OF MISSOURI - KANSAS CITY	16	4	11	6	5
UNIVERSITY OF CINCINNATI	10	4	5	3	2
UNIVERSITY OF TOLEDO	5	0	4	4	0
TEMPLE UNIVERSITY	15	2	12	8	4
UNIVERSITY OF PITTSBURGH	16	7	7	5	2
UNIVERSITY OF HOUSTON	8	4	4	3	1
VIRGINIA COMMONWEALTH UNIV	20	9	7	6	1

Pharm.D. Graduates Pursuing Other Degrees and Post-Graduate Training

Data from 2014 AACP graduating student survey:

- Participated in a dual degree program while completing doctor of pharmacy program
 - 4 – Pharm.D./MBA
 - 1 – Pharm.D./MS
 - 1 – Other
- “Current plans upon your graduation from the college/school of pharmacy”: Further Education
 - 36 – Pharmacy residency program
 - 3 – Pharmacy residency-Master’s program
 - 2 – MBA program
 - 2 – Other health professions
 - 1 – Non-pharmacy Ph.D. program
 - 1 – Fellowship
 - 81 – No plans for further education

Goal I.B. Graduate Program: Educate scientists that contribute to innovation and application of pharmaceutical/biomedical science

Objective I.B.1. Provide learning experiences and programs of study that reflect contemporary course work and high quality scientific training and support the career aspirations of students

Objective I.B.2. Promote interdisciplinary interactions between basic science and clinical educators to enhance translational research

Measures of Success:

- Number of full-time students in Ph.D. program
- Number of fellowships awarded
- Student awards and honors from external entities
- Peer-reviewed publications by graduate students
- Presentations at national/international scientific meetings by graduate students
- Number of faculty as primary mentors
- Percentage placement within six months of graduation
 - Academic positions
 - Pharmaceutical industry careers

- Government
- Post-doctoral fellowships

Graduate Program Enrollment Policies and School of Pharmacy Graduate Student Statistics

The following information is taken from the UMKC School of Graduate Studies website: Graduate students enrolled in nine or more credits during a regular semester or five credits during a summer session are considered full-time students. All students registered for fewer than those specified totals are classified as part-time students, unless they hold a teaching or research appointment at UMKC.

Full-time enrollment for students holding graduate teaching assistant or graduate research assistant (GTA/GRA) appointments is six hours in a regular semester or three hours in a summer session. GTAs/GRAs are expected to make normal progress toward their degrees and should enroll in a minimum of six hours per semester (three credits in the summer session). However, GTA/GRA appointees who have completed all required coursework for the degree and who are working full time on research need only enroll for the minimum of three credits. Students who are enrolled and do not meet the criteria for full-time enrollment are considered to be part-time graduate students.

Continuous enrollment is required. “Graduate students in good standing who have not enrolled for only one semester may re-enroll without applying for readmission. Students who attend other schools in the interim must submit transcripts of such work from each institution attended. Graduate students are considered inactive after a lapse of two or more regular semesters of enrollment. Subsequently, inactive graduate students who want to continue must follow the same admission procedures as those required for new applicants. After a lapse of three or more terms, graduate students will re-enter under requirements in effect at the time of readmission.”

Graduate student enrollment:

- Spring 2014 – 51 (Pharmaceutical Sciences – 34; Pharmacology and Toxicology – 17)
- Fall 2014 – 52 (Pharmaceutical Sciences – 35; Pharmacology and Toxicology – 17)

Graduate Student Awards

- The UMKC Women’s Council presents their annual Graduate Assistance Fund Awards at a luncheon in the spring. Ph.D. and doctor of pharmacy students are among the women recognized for their research projects. In spring 2014, seven graduate students received awards:
 - Fatma Abdalla – Pharmacology and Toxicology
 - Anusha Ande – Pharmacology and Toxicology
 - Anwesha Chatterjee – Pharmacology and Toxicology
 - Amruta Ronghe – Pharmacology and Toxicology
 - Harika Vemula – Pharmaceutical Sciences
 - Xiaoyan Yang – Pharmaceutical Sciences
 - Yan Zhang – Pharmacology and Toxicology
- At the 2014 Health Sciences Student Research Summit, two pharmacy graduate students and one resident received best poster awards:
 - Amruta Ronghe – Pharmacology and Toxicology
 - Sujay Shah – Pharmaceutical Sciences
 - Roxane Took – Pharmacy Practice and Administration

- Anantha Ram Nookala (Division of Pharmacology and Toxicology) was selected for the UMKC Preparing Future Faculty Fellows program. The program provides the structure for doctoral students to augment their qualifications with a graduate certificate in college teaching and career preparation. The fellowships are awarded by the School of Graduate Studies. Fellows previously selected from the School of Pharmacy include Anusha Ande (Division of Pharmacology and Toxicology).
- Other Division of Pharmacology and Toxicology award winners:
 - Anusha Ande: Early Career Investigator Travel Award, Society on NeuroImmune Pharmacology; Travel Grant, UMKC School of Graduate Studies; Travel Grant, UMKC Interdisciplinary Doctoral Student Council
 - Liu Cao: Travel Grant, UMKC School of Graduate Studies; Travel Grant, UMKC Interdisciplinary Doctoral Student Council
 - Mohitkumar Gangwani: Early Career Investigator Travel Award, Society on NeuroImmune Pharmacology
 - Xun Liu: Early Career Investigator Travel Award, Society on NeuroImmune Pharmacology; Travel Grant, UMKC School of Graduate Studies
 - Anantha Ram Nookala: Early Career Investigator Travel Award, Society on NeuroImmune Pharmacology; Travel Grant, UMKC School of Graduate Studies; Travel Grant, UMKC Interdisciplinary Doctoral Student Council
 - Amruta Ronghe: Travel Grant, UMKC Interdisciplinary Doctoral Student Council
 - Ankit Shah (post-doctorate): Early Career Investigator Travel Award, Society on NeuroImmune Pharmacology
- Other Division of Pharmaceutical Sciences award winners:
 - Vibhuti Agrahari: Best Poster Award, UMKC Community of Scholars Symposium; AAPS Ocular Drug Delivery & Disposition Focus Group Graduate Student Poster Award; AAiPS (American Association of Indian Pharmaceutical Scientists) Research Award; Research Grant Proposal Award, UMKC School of Graduate Studies; Travel Grant, UMKC School of Graduate Studies; Travel Grant, UMKC Interdisciplinary Doctoral Student Council
 - Vivek Agrahari: Research Award, UMKC School of Graduate Studies; Best Paper Presentation Award, UMKC Community of Scholars Symposium; AAiPS (American Association of Indian Pharmaceutical Scientists) Research Award; Travel Grant, UMKC School of Graduate Studies; Travel Grant, UMKC Interdisciplinary Doctoral Student Council
 - Kishore Cholkar: Best Poster Award and Certificate of Recognition, 2014 International Conference on Clinical and Experimental Ophthalmology; Certificate of Recognition, UMKC Community of Scholars Symposium
 - Ashish Kala: Travel Award, American Chemical Society; Travel Grant, UMKC School of Graduate Studies
 - Abhirup Mandal: Travel Grant, American Association of Pharmaceutical Scientists
 - Byeongtaek Oh: Travel Grant, UMKC School of Graduate Studies; Travel Grant, UMKC Interdisciplinary Doctoral Student Council
 - Alex Owiti: Travel Grant, UMKC School of Graduate Studies; Travel Grant, UMKC Interdisciplinary Doctoral Student Council; Travel Grant, American Association of Pharmaceutical Scientists
 - Sujay Shah: AAiPS (American Association of Indian Pharmaceutical Scientists) Research Award
 - Hoang Trinh: Travel Grant, UMKC Interdisciplinary Doctoral Student Council
 - Ravi Vaishya: Travel Grant, UMKC School of Graduate Studies; Travel Grant, UMKC Interdisciplinary Doctoral Student Council
 - Harika Vemula: Research Grant, UMKC School of Graduate Studies; Travel Grant, American Society for Biochemistry and Molecular Biology conference

- Xiaoyan Yang: Travel Grant, UMKC School of Graduate Studies; Travel Grant, UMKC Interdisciplinary Doctoral Student Council

Summary of 2014 Graduate Student Research Publications and Presentations

IPhD discipline enrollment during 2014	Publications	Presentations
Pharmaceutical Sciences (n = 35 students)	30	21
Pharmacology and Toxicology (n = 17)	9	6

Our graduate students demonstrate their research proficiency through participation in faculty research, development of their own related studies, and the dissemination of their work through peer-reviewed publications as well as presentations at scientific meetings. Typically, graduates from our doctoral programs have published multiple peer-reviewed articles and are engaged in an ongoing program of research. Our graduates are well-trained to work as independent scientists in industry and/or academe.

Publications:

Book Chapters:

Cholkar, K., Vadlapudi, A.D., Hoang, M.T., & Mitra, A.K. (2014). Compositions, formulations, pharmacology, pharmacokinetics, and toxicity of topical, periocular, and intravitreal ophthalmic drugs. In B.C. Gilger (Ed.), *Ocular pharmacology and toxicology* (pp. 91-118). New York: Humana Press/Springer Protocols.

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Vadlapudi, A.D., Cholkar, K., Dasari, S.R., & Mitra, A.K. (2014). Ocular drug delivery. In A.K. Mitra, **D. Kwatra, & A.D. Vadlapudi** (Eds.), *Drug delivery* (pp. 220-263). Burlington, MA: Jones & Bartlett Learning.

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Agrahari, V., Meng, J., Zhang, T., & Youan, B.B. (2014). Application of design of experiment and simulation methods in liquid chromatography analysis of topical HIV microbicides stampidine and HI443. *Journal of Analytical and Bioanalytical Techniques*, 5(1), pii:180.

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Alwani, V.A., **Cholkar, K.,** Nayak, A.A., & Gowda, N.M. (2014). Synthesis and characterization of mercuric bromide-phenothiazine complexes. *International Journal of Pharma Sciences and Research*, 5(12), 1052-1057.

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Ronghe, A., Chatterjee, A., Singh. B., Dandawate, P., Murphy, L., Bhat, N.K., Padhye, S., & Bhat, H.K. (2014). Differential regulation of estrogen receptors α and β by 4-(E)-{(4-hydroxyphenylimino)-methylbenzene, 1,2-diol}, a novel resveratrol analog. *Journal of Steroid Biochemistry and Molecular Biology*, 144(Part B), 500-512.

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Graduate Student Posters and Presentations at National and International Scientific Meetings:

Agrahari, V. (2014, July). *Biodegradable, biocompatible and functional pentablock copolymer based nano-formulations for sustained ocular delivery of macromolecules*. International Conference on Clinical and Experimental Ophthalmology, Baltimore, MD.

Agrahari, V. (2014, May). *Novel pentablock copolymer based nanoformulations for sustained ocular delivery of protein therapeutics*. Annual meeting of the Association for Research in Vision and Ophthalmology (ARVO), Orlando, FL.

Agrahari, V., Meng, J., & Youan, B.B. (2014, November). *Thiolated hyaluronic acid based mucoadhesive nanofibers intended for the prevention of HIV virus transmission through vaginal mucosa*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Agrahari, V., Patel, S., Gilger, B., & Mitra, A.K. (2014, November). *Biocompatibility and in vivo tolerability studies of novel pentablock copolymer based nanoformulations for sustained ocular delivery of macromolecules*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Ande, A., Sinha, N., McArthur, C., Kumar, A., & Kumar, S. (2014, March). *Effect of mild-to-moderate smoking on viral load and oxidative stress in HIV-1-infected individuals: Role of cytochrome P450*

enzymes. SNIP (Society on NeuroImmune Pharmacology) Annual Scientific Conference, New Orleans, LA.

Chatterjee, A., Ronghe, A., Abdalla, F., & Bhat, H.K. (2014, April). *Natural antioxidants exhibit chemopreventive characteristics through the regulation of CNC-bZip transcription factors in estrogen-induced breast carcinogenesis*. Annual meeting of the American Association for Cancer Research, San Diego, CA.

Chen, Z., Zhao, Z., & Cheng, K. (2014, October). *Identification of IGF2R specific peptides using phage display*. International Nanomedicine and Drug Delivery Symposium (NanoDDS), Chapel Hill, NC.

Cholkar, K., Gilger, B., Velagaleti, P., Weiss, S., & Mitra, A.K. (2014, November). *Cyclosporine-A topical drops for dry eye syndrome*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Cholkar, K., Gilger, B., Velagaleti, P., Weiss, S., & Mitra, A.K. (2014, July). *Clear aqueous mixed nanomicellar cyclosporine-A topical drops for anterior and posterior ocular delivery*. International Conference on Clinical and Experimental Ophthalmology, Baltimore, MD.

Cholkar, K., Trinh, H.M., Vadlapudi, A.D., & Mitra, A.K. (2014, July). *Synthesis and characterization of novel lipid prodrugs of ganciclovir*. International Conference on Clinical and Experimental Ophthalmology, Baltimore, MD.

Kala, A., Jain, P.K., & Friedman, S.H. (2014, August). *Patterning of cells through patterning of biology*. National meeting of the American Chemical Society, San Francisco, CA.

Liu, X. (2014, March). *PI3K/Akt and p38 MAPK pathways and transcription factors NF- κ B, CEBP, and AP-1 are involved in HIV-1 Nef-mediated Increase of CCL5 in astrocytes*. SNIP (Society on NeuroImmune Pharmacology) Annual Scientific Conference, New Orleans, LA.

Mandal, A., Khurana, V., Vadlapudi, A., Vadlapatla, R., Pal, D., & Mitra, A.K. (2014, November). *Functional characterization and molecular identification of vitamin C transporter(SVCT2) in human corneal epithelial (HCEC) and retinal pigment epithelial (D407) cells*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Mandal, A., Khurana, V., Vadlapudi, A., Vadlapatla, R., Pal, D., & Mitra, A.K. (2014, July). *Functional characterization and molecular identification of vitamin C transporter(SVCT2) in human corneal epithelial (HCEC) and retinal pigment epithelial (D407) cells*. International Conference on Clinical and Experimental Ophthalmology, Baltimore, MD.

Mukhopadhyay, A., Bhar, S., Das, S., Chowdhury, A.R., & Mitra, S. (2014, January). *Generation of 3D structure of homosapiens class 2 HDAC through homology modeling and docking study of newly designed inhibitors with their predicted binding affinity and toxicity studies*. Pharm. Tech. IAPST (Indian Association of Pharmaceutical Scientists and Technologists) International Conference, Kolkata, India.

Natarajan, C. (2014, November). *Role of efflux transporters in a non small cell lung cancer*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Oh, B. & Lee, C.H. (2014, May). *Nanofiber-hydrogel composite for a combined delivery of NO and ROS scavenger against CAD*. World Congress of Cardiology Scientific Sessions, Melbourne, Australia.

Oh, B. & Lee, C.H. (2014, November). *Bio-inspired hydrogel for encapsulation of adipose-derived mesenchymal stem cells (AD-MSCs)*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Ronghe, A., Chatterjee, A., Abdalla, F., & Bhat, H.K. (2014, April). *Tamoxifen synergizes cytotoxic activity of 4-(E)-{(4-hydroxyphenylimino)-methylbenzene, 1,2-diol} (HPIMBD), a novel resveratrol analogue against breast cancer cells*. Annual meeting of the American Association for Cancer Research, San Diego, CA.

Shah, S., Patel, S., Patel, A., & Mitra, A.K. (2014, July). *Novel targeted fluocinolone acetonide loaded aqueous micelles for the treatment of posterior uveitis*. International Conference on Clinical and Experimental Ophthalmology, Baltimore, MD.

Shah, S., Patel, S., Patel, A., & Mitra, A.K. (2014, May). *Etoposide loaded aqueous micelles for the treatment of retinoblastoma*. Annual meeting of the Association for Research in Vision and Ophthalmology (ARVO), Orlando, FL.

Shah, S., Patel, S., Patel, A., & Mitra, A.K. (2014, November). *Novel folate targeted etoposide loaded aqueous micelles for enhanced permeability in retinoblastoma cells (Y-79)*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Vaishya, R., Patel, S., & Mitra, A.K. (2014, November). *Octreotide-encapsulated microparticle-in-gel formulation for sustained delivery*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Verma, S.M., Rawat, P., & **Bhar, S.** (2014, January). *An insight to combat cancer through benzopyran*. Pharm. Tech. IAPST (Indian Association of Pharmaceutical Scientists and Technologists) International Conference, Kolkata, India.

Wang, W., & Lee, C.H. (2014, November). *The effect of reactive oxygen species scavengers on mast cell stabilization*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Yang, X., & Mitra, A.K. (2014, November). *Statistical design for formulation optimization of hydrocortisone butyrate-loaded PLGA nanoparticles*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Zhang, Y. & Igwe, O.J. (2014, November). *Toll-like receptor 4 regulates prooxidant-mediated release of prostaglandin E2 and resolving in macrophages*. Annual meeting of the Society of Neuroscience, Washington DC.

Job Placement of Fall 2009–Fall 2014 IPhD Graduates

Name	Advisor	Year Graduated	Company/University	Position
Acharya, Gayathri	Lee	2013	Children's Mercy Hospital, Kansas City, Missouri	Research Scientist
Barot, Megha	Mitra	2013	U.S. Pharmacopeia, Rockville, Maryland	Reference Standard Scientist III
Bobba, Sudheer	Gutheil	2013	MPI Research	Scientist I
Boddu, Sai "Sagar"	Mitra	2010	University of Toledo, Ohio	Assistant Professor in Pharmaceutical Science
Chatterjee, Anwesha	Bhat	2014	University of Kentucky, Lexington, Kentucky	Post-doctoral fellow
Chaudhuri, Rajoshi	Friedman	2011	KU Medical Center - accepted in NIH in 2012	Scientist
Gaudana, Ripal	Mitra	2011	PAR Pharmaceuticals, Spring Valley, New York	Formulation Scientist
Gokulgandhi, Mitran	Mitra	2013	U.S. Pharmacopeia, Rockville, Maryland	Scientist III
Gunda, Sriram	Mitra	2012	Pharmaceutical Product Development (PPD), Richmond, Virginia	Pharmacokineticist
Hariharan, Sudarshan	Mitra	2009	FDA-Washington, D.C.	Clinical Pharmacology Reviewer
Jain, Nitin	Friedman	2013	Trinity Biotech	Senior Research and Development Chemist
Jain, Piyush	Friedman	2013	Harvard-MIT Health Sciences and Technology	Post-Doctoral Researcher
Karunakaran, Dipu	Friedman	2014	Northwestern University	Post-doctoral fellow
Khurana, Varun	Mitra	2014	Insys Therapeutics, Chandler, Arizona	Formulation Scientist
Kwatra, Deep	Mitra	2011	University of Kansas Medical Center - Dr. Shrikant Anant's lab, Cancer Research Center, Department of Molecular and Integrative Physiology	Post-Doctoral Research Fellow
Liu, Xun	A. Kumar	2014	Harvard Medical School, Brigham	Post-doctoral position
Luo, Shuanghui	Mitra	2010	Aegis, Nashville, Tennessee	Certifying Scientist and Technical Supervisor
Mahato, Rubi	Cheng	2014	Fairleigh Dickinson University School of Pharmacy	Tenure-Track Assistant Professor

Name	Advisor	Year Graduated	Company/University	Position
Mandava, Nanda	Mitra	2013	Mylan Pharmaceuticals, Morgantown, West Virginia	Senior Scientist
Minocha, Mukul	Mitra	2012	Center for Translational Medicine, School of Pharmacy, University of Maryland	Post-Doctoral Fellow
Mishra, Gyan Prakash	Mitra	2011	College of Pharmacy, Oregon State University, Corvallis, Oregon	Post-Doctoral Research Fellow
Patel, Ashaben	Mitra	2014	University of Kansas	Postdoctoral Research Fellow
Patel, Mitesh	Mitra	2014	GlaxoSmithKline	Postdoctoral Research Fellow
Patel, Sulabh	Mitra	2014	Roche, Basel, Switzerland	Postdoctoral Fellow
Paturi, Durga	Mitra	2013	IQSPECTRUM, Inc, Piscataway, New Jersey	Clinical Data Analyst
Ponnaluri, Chaithanya	Mukherji	2014	New England Biolabs, Boston, Massachusetts	Post-Doctoral Fellow
Putty, Sandeep	Gutheil	2014	Mylan Pharmaceuticals, Morgantown, West Virginia	Scientist QTS
Qin, Bin	Cheng	2012	Center for Ultrasound Molecular Imaging and Therapeutics, University of Pittsburgh	Post-Doctoral Associate
Renukuntla, Jwala	Mitra	2011	Southern College of Pharmacy, Knoxville, Tennessee	Assistant Professor of Pharmaceutical Sciences
Ronghe, Amruta	Bhat	2014	Wistar Institute, Philadelphia, PA	Post-doctoral
Shukla, Ravi	Cheng	2014	Amneal Pharmaceuticals, LLC, Long Island, New York	Scientist III
Tai, Wanyi	Cheng	2012	University of Washington, Seattle, Washington	Senior Post-Doctoral Fellow
Tamboli, Viral	Mitra	2012	Teva Pharmaceuticals, Pomona, New York	Scientist I
Vadlapatla, Ramya	Mitra	2014	Mylan Pharmaceuticals, Morgantown, West Virginia	Scientist
Vadlapudi, Aswani	Mitra	2013	Mylan Pharmaceuticals, Morgantown, West Virginia	Scientist
Vavilala, Divya	Mukherji	2014	Catalyst Biosciences	Scientist I
Wang, Zhiying	Mitra	2013	The University of Kansas, Kansas City, Kansas	Post-Doctoral Researcher
Zhang, Tao	Youan	2013	Pfizer	Senior Research Scientist

Strategic Initiative II. Our People:

Foster the growth and success of students, faculty and staff

Goal II.A. Students: Recruit, retain and graduate a highly qualified and diverse student population

Objective II.A.1. Enhance recruitment efforts to increase the student population diversity

Objective II.A.2. Align recruitment efforts with indicators of success to maximize on-time graduation for all School of Pharmacy Programs (i.e., Pharm.D., graduate degrees)

Objective II.A.3. Develop and implement a process for early identification of at-risk students along with interventions to optimize student progression rates within all School of Pharmacy programs

Measures of Success:

- Pharm.D.
 - Number of qualified applicants each year
 - Percentage male and percentage minority applicants and enrolled students
 - On-time graduation rate, attrition and deceleration rates
 - > 75% agreement with statements in the AACP graduating student survey
 - > 75% satisfaction with school services as reported in the end of year survey
 - List of school diversity initiatives (e.g., diversity task force report, director of minority recruitment activities)
 - Student body diversity as compared to Missouri (goal is to be at least as diverse as the state of Missouri)
 - > 75% of graduating Pharm.D. students remain in the state of Missouri for employment
- Graduate students
 - Graduate student attrition rates, timely progression through the program, and graduation numbers each year
 - Percentage U.S. citizens or permanent residents in program

A number of changes occurred in the recruitment, screening, and matriculation of Pharm.D. students over the past few years. The school began participating in PharmCAS with the entering class of 2012. This online application system is utilized by more than 100 pharmacy programs and is supported by the AACP. Prospective students may select up to three schools with payment of an initial fee. Additional schools may be added for additional fees. In addition to changing to the online submission system, the Admissions Committee began using a “whole file” review process for screening applicants whereby committee members consider all materials in the applicant’s file. Prior to this process, applicants were rank-ordered according to a numerical index that was computed by assigning points to applicant attributes reported in the application. Another important change that most likely impacted recruitment was the change from a 1-5 to a 2-4 curriculum in 2012.

In 2013, AACP refined the definition of “applicant” to be those prospective students who complete the entire application process (i.e., submit a PharmCAS application, a UMKC application, and were considered by the Admissions Committee). The number of applicants in the following table is lower in 2013 (n = 428) than in previous years (e.g., 2012 n = 518) because of the change in the way the data are reported. The following table provides the comparator data for 2012, 2013 and 2014 using the earlier definition of “applicant.”

The application processes and definitions were unchanged in 2014, with one exception. Alumni interviewers were given access to the applicants work and volunteer experience prior to the interview.

Pharm.D. applications for 2012, 2013 and 2014 under prior application definition:

	2012	2013	2014
Total applicants who indicated UMKC in PharmCAS	518	519	540
Matriculated	123	124	143
Denied	146	132	94
Incomplete	127	84	123
Withdrew	56	43	48
Alternate list	17	32	20
Declined Offer	46	38	54
Rescinded	3	7	10
Deferred	0	0	1

Application and admission statistics:

(old definition for 2009-2012; new definition applied to 2013 statistics)

All Pharm.D. applicants					
	2009	2010	2012	2013	2014
# applied	544	502	518	428	346
% MO Resident	58%	67%	47%	47%	52%
% Female	58%	62%	57%	63%	60%
% Prev Baccalaureate	23%	18%	30%*	20%	29%
Average Age	24	24	24	23	23
Average Cum GPA	3.416	3.315	3.33	3.2	3.3
Average S/M GPA	3.31	3.3	3.2	3.1	3.2
Average # Cr. Hours	92	95	120	121	123
Ethnicity					
White	60%	60%	59%	61%	60%
Asian/Pacific Islander	18%	13%	19%	22%	20%
Refused to Indicate	7%	13%	4%		
Black or African Amer	10%	10%	9%	9%	8%
International/Foreign	1%	1%	3%	4%	3%
American Indian or AK Nat	0%	1%	1%	2%	0.3%
Hispanic or Latino	1%	2%	3%	3%	3%
Two or more races	1%		2%	0	3%
Not Specified	2%			0	3%
PCAT %					
Verbal	56	56	53	53	54
Biology	56	56	61	61	62
Reading Comprehension	54	52	45	46	52
Quantitative Ability	56	50	48	50	52
Chemistry	51	48	54	60	63
Composite			55	56	57

Entering Pharm.D. Class

	2009 (1:5)	2010 (1:5)	2012 (2:4)	2013 (2:4)	2014 (2:4)
# accepted	175	161	169	170	166
# matriculated	138	138	123	124	143
% MO Resident	82.5%	89%	89%	89%	81%
% Female	53%	68%	57%	61%	64%
% Prev Baccalaureate	21%	17%	28%	32%	48%
Average Age	22	23	22	22	22
Average Cum GPA	3.64	3.615	3.54	3.51	3.47
Average S/M GPA	3.58	3.57	3.45	3.40	3.33
Average # Cr. Hours	79	76	92	98	110
Ethnicity					
White	78.1%	80%	80%	82%	72%
Asian/Pacific Islander	8.76%	10%	11%	8%	16%
Refused to Indicate	6.57%	5%	0%		
Black or African Amer	2.92%	2%	3%	5%	6%
International/Foreign	0.73%	0%	0%	4%	1%
American Indian or AK					
Nat	0.73%	1%	0%	3%	0
Hispanic or Latino	0.73%	2%	4%	2%	1%
Two or more races	0.73%		2%	0	3%
Not Specified	0.73%		0%	0	1%
PCAT %					
Verbal	70	64	60	60	57
Biology	62	59	66	63	64
Reading					
Comprehension	68	58	51	55	58
Quantitative Ability	65	56	51	51	53
Chemistry	54	49	57	62	64
Composite			60	61	59

Attrition and Retention

Entry Year	Grad Class		# admitted	On Time Finish (%)	Delayed Finish (%)	Attrition: personal reasons (%)	Attrition: academic dismissal (%)	Graduation rate of original class (%)
2005	2010	Total	114	104 (91%)	5 (4%)	2 (2%)	3 (3%)	109/114 (96%)
		Kansas City	86	79 (92%)	2 (2%)	2 (3%)	3 (2%)	81/86 (94%)
		Columbia	28	25 (89%)	3 (11%)	0 (0%)	0 (0%)	28/28 (100%)
2006	2011	Total	118	107 (90%)	1 (1%)	0 (0%)	10 (8.5%)	108/118 (91.5%)
		Kansas City	90	79 (88%)	1 (1%)	0 (0%)	10 (11%)	80/90 (89%)
		Columbia	28	28 (100%)	0 (0%)	0 (0%)	0 (0%)	28/28 (100%)

Entry Year	Grad Class		# admitted	On Time Finish (%)	Delayed Finish (%)	Attrition: personal reasons (%)	Attrition: academic dismissal (%)	Graduation rate of original class (%)
2007	2012	Total	123	107 (87%)	3 (2%)	3 (2%)	10 (8%)	110/123 (89%)
		Kansas City	95	82 (86%)	2 (2%)	3 (3%)	8 (8%)	84/95 (88%)
		Columbia	28	2 (89%)	1 (4%)	0 (0%)	2 (7%)	26/28 (93%)
2008	2013	Total	138	121 (88%)	3 (2%)	2 (1%)	12 (9%)	124/138 (90%)
		Kansas City	110	98 (89%)	1 (1%)	2 (2%)	9 (8%)	99/110 (90%)
		Columbia	28	23 (86%)	2 (7%)	0 (0%)	3 (11%)	25/28 (89%)
2009	2014	Total	136	122 (90%)	1 (<1%)	4 (3%)	9 (7%)	123/136 (90%)
		Kansas City	108	98 (91%)	1 (<1%)	3 (3%)	6 (6%)	99 (92%)
		Columbia	28	24 (85.7%)	0	1 (4%)	3 (11%)	24 (86%)

Notes:

- Student progression rates are recalculated at the end of each semester
- Students are tracked with the entering class, not their graduating class
- Percentages are rounded

AACP Graduating Student Survey

On the 2014 AACP graduating student survey, three items had ratings that fell below the school's benchmark of 75%. Financial advising was one of the items. The Office of Student Affairs is exploring identifying strategies to correct any deficiencies. One of the items was awareness of research opportunities. The underlying issue for this item is the lack of a laboratory research requirement within the Pharm.D. curriculum. The dean's office has discussed this situation on a number of occasions with Pharm.D. students, and it does not appear to be a deficiency in the program. Satisfaction with student study areas also fell slightly below the benchmark. The school administration has been expanding options for study space over the past few years. Tables and chairs have been added in open spaces, a room scheduling process has been made available to students to reserve study space, and the associate dean for student affairs is continuing to monitor the situation.

SECTION III: Pharmacy Practice Experiences

My introductory pharmacy practice experiences were valuable in helping me to prepare for my advanced pharmacy practice experiences.

My introductory pharmacy practice experiences permitted my involvement in direct patient care responsibilities in both community and institutional settings.

SECTION IV: Student Services

Career planning and guidance met my needs.

2010	2011	2012	2013
85/107 (79.4%)	79/111 (71.2%)	81/107 (75.6%)	93/124 (75%)
89/107 (83.2%)	75/107 (70.1%)	92/107 (86%)	110/124 (88.7%)
2010	2011	2012	2013
55/79 (69.6%)	64/79 (81.0%)	59/76 (77.6%)	48/74 (64.9%)

Financial aid advising met my needs.	71/92 (77.2%)	60/84 (71.4%)	59/77 (76.6%)	61/90 (64.8%)
The college/school of pharmacy effectively managed academic misconduct by students.	72/82 (87.8%)	75/86 (87.2%)	68/93 (73.1%)	84/106 (79.2%)
I was aware of opportunities to participate in research activities with faculty.	59/104 (56.7%)	57/98 (58.2%)	64/101 (63.4%)	75/117 (64.1%)
<u>SECTION VI: Facilities, Experiential Sites & Educational Resources</u>				
The study areas in the college/school of pharmacy or elsewhere on campus were conducive to learning.	2010 90/108 (83.3%)	2011 90/110 (81.8%)	2012 81/107 (75.7%)	2013 92/125 (73.6%)

Fifteen items on the 2013 survey received a rating of 98% or above:

SECTION I: Professional Competencies/Outcomes

The Pharm.D. program prepared me to...

Communicate with health care providers.

123/125 (98.4%)

Communicate with patients and caregivers.

125/125 (100%)

Gather and use specific information (e.g., patient histories, medical records) to identify patient medication-related problems.

124/125 (99.2%)

Develop a patient care plan to manage each medication-related problem.

123/125 (98.4%)

Provide patient care in accordance with legal, ethical, social, economic, and professional guidelines.

124/125 (99.2%)

Search the health sciences literature.

122/124 (98.4%)

Evaluate the health sciences literature.

125/125 (100%)

SECTION II: Doctor of Pharmacy Curriculum

I was provided opportunities to engage in active learning (e.g., laboratories, recitations, student portfolios, problem-based learning, in-class activities).

124/125 (99.2%)

SECTION III: Pharmacy Practice Experiences

In the ambulatory care setting, I was able to apply my patient care skills.

121/122 (99.2%)

My pharmacy practice experiences allowed me to have direct interaction with diverse patient populations (e.g., age, gender, ethnic and/or cultural background, disease states, etc.).

124/125 (99.2%)

My pharmacy practice experiences allowed me to collaborate with other health care professionals.

125/125 (100%)

SECTION V: The Student Experience

The college/school of pharmacy is welcoming to students with diverse backgrounds.

116/118 (98.3%)

Overall, preceptors modeled professional attributes and behaviors in the pharmacy practice experiences.

124/125 (99.2%)

I was aware of expected behaviors with respect to professional and academic conduct.

125/125 (100%)

The college/school of pharmacy was supportive of student professional organizations.

125/125 (100%)

Diversity Initiatives

In 2014, the Hy-Vee camp and the Hospital Hill Health Science Camp staff were discontinued. The Office of Student Affairs has begun to work closely with Prep KC's health sciences initiative. Prep KC's mission is to improve the education of Kansas City's urban students by providing resources to prepare all students for college and careers. OSA staff also participated in several high school recruiting and leadership development events that focus on attracting underrepresented students to UMKC. A sampling of these events include the Infinite Scholars Program, Kansas City Kansas Public School Math Relays, Career Jumping at Kansas City Missouri schools, Kansas City Missouri High School Counselor

Luncheon, PREP KC Health Science Days , YMCA Young Achievers, African American Youth Counselor Day, Latino's of Tomorrow Fest and the UMKC Multicultural Student Affairs Legacy Summit of African American Leadership. OSA staff also visited several college campuses with large populations of underrepresented students to discuss careers in pharmacy. Specifically, staff visited Harris Stowe, University of Arkansas Pine Bluff, Philander Smith College, Rust College and Lincoln University.

The Hy-Vee/UMKC Summer Pharmacy Explorations Program gives high-school students the opportunity to learn about pharmacy and pharmacy careers as well as gain hands-on experience working part-time in a Hy-Vee pharmacy. Students in the month-long program receive a biweekly stipend of \$600. The 2012 program had 32 applicants and 14 participants. In 2013, 18 Hy-Vee students participated.

In June, the Schools of Pharmacy, Nursing and Health Science, and Dentistry sponsored the Hospital Hill Health Science Camp for high school sophomores, juniors and seniors. The camp is a year-long academy that provides a one-week on-campus residential experience in the summer and three on-campus meetings throughout the school year. It is designed to introduce high school students, primarily from minority and underrepresented populations, to health science careers. Students learn about dentistry, nursing, and pharmacy professions, participate in experiential learning activities, tour health profession schools, and receive academic enrichment. Following the summer academy, participants have the opportunity to take part in year-round didactic and clinical activities exposing them to a variety of professional career and clinical specialty opportunities. Woven throughout the curriculum are social and cultural support functions designed to build a sense of community and overcome academic and environmental obstacles to program completion. In 2013, 60 Hospital Hill Students participated, including 20 supported by pharmacy.

The Hospital Hill Health Science Camp and the Hy-Vee/UMKC Summer Pharmacy Explorations Program were discontinued for 2014, due to loss of external support.

Summary:

- New Initiatives:
 - Student National Pharmacist Association reforming during 2014-2015 academic year
 - Prep-KC collaboration expansion
 - School of Pharmacy website content on diversity

Diversity Recruitment and Events for 2013-14:

- School of Pharmacy hosted events (50% of events were focused on underrepresented students)
 - AHEC Medical Explorers Post
 - Prep-KC Health Science Day (two events)
 - YMCA Young Achievers Career Cluster
 - BEST students
 - Hy-Vee students
- Volker campus hosted events (35% of events were focused on underrepresented students)
 - UMKC School of Medicine Summer Scholars Panel participation
 - Hospital Hill Diversity Council Scholarship Dinner and Dance fundraiser
 - Hospital Hill Diversity Council networking reception
 - Latinos of Tomorrow's ACT Practice Test and Scholarship Fest health care panel
 - UMKC Multicultural Student Affairs Legacy Summit of African American Leadership
 - Alpha Phi Alpha Beta Lambda Alumni Chapter Black College Tour
 - African American Youth Counselor Day

- Off-campus high school events (75% of events were focused on underrepresented students)
 - Infinite Scholars St. Louis
 - Kansas City, Kansas Public Schools Math Relays and Summer Opportunity Fair
 - Career Jumping: F.L. Schlagle High School
 - Kansas City, Kansas School District
 - Center School District
 - Career Jumping: East High School
 - Cristo Ray
 - Summers at Mizzou
- Off-campus college events (38% of events were focused on underrepresented students)
 - Harris Stowe University
 - University of Arkansas, Pine Bluff Biology Department visit
 - Philander Smith College, Little Rock Biology Department visit
 - Rust College Biology/Chemistry visit
 - UNCF
 - Lincoln University Tri Beta Club

Racial Distribution of Pharm.D. Students

	2009		2010		2011		2012		2013		2014	
White	467	76.68	494	79.81	401	81.01	406	79.6	393	78.6	391	76.3
Black or Afr Amer	21	3.45	21	3.39	12	2.42	15	2.94	18	3.6	22	4.2
Hispanic or Latino	4	0.66	6	0.96	5	1.01	10	1.96	11	2.2	12	2.3
Asian or other PI	54	8.87	46	7.43	36	7.27	46	9.2	48	9.6	58	11.3
Amer Ind or Nat AK	1	0.16	3	0.48	3	0.61	2	0.39	3	0.6	3	<1
Other/Unknown	52	8.54	42	6.79	31	6.26	24	4.7	16	3.2	12	2.3
Foreign	7	1.15	7	1.13	3	0.61	2	0.39	2	0.4	2	<1
Two or More ethnicities	3	0.49	0	0	4	0.81	5	0.98	9	1.8	12	2.3
Grand total	609		619		495		510		500		512	

2010 U.S. Census Data for Racial Diversity in Missouri*

Race	%
White	81.0
Black or African American	11.5
Hispanic or Latino	3.5
Asian	1.6
American Indian and Alaskan Native	0.4
Native Hawaiian and Other Pacific Islander	0.1
Some other race	0.1
2 or more races	1.8

**Obtained from U.S. Census Bureau web site*

Plans to Remain in the State of Missouri for Employment

In a 6-months post-graduation survey of 2014 graduates (88/126 responded), students were asked to identify the state in which he/she was employed. Sixty-eight percent (53) of respondents were

employed in Missouri. Of the respondents, less than the benchmark of 75% of graduates remained in the state of Missouri post- graduation.

Graduate Student Attrition, Progression and Citizenship

- Attrition and Progression for Fall 2009–Spring 2014:

	Total # enrolled	# currently enrolled	# graduated
Division of Pharmaceutical Sciences	75	31	30
Division of Pharmacology and Toxicology	26	13	5

- Progression – Number of credit hours completed through fall semester 2013:
 - 0-25 credit hours: 15
 - 26-50 credit hours: 14
 - 51-75 credit hours: 25
 - more than 75 credit hours: 2

To mark progression through the graduate program, a white coat ceremony was instituted in the 2012-2013 academic year. Students who have completed two full years of study in the Ph.D. program and who have filed a plan of study with the graduate school are eligible to participate in the white coat ceremony. Students receive a white laboratory coat and take the oath of the scientist signifying their commitment to upholding the highest standards in their scientific contributions to new knowledge. In the inaugural white coat ceremony in May of 2013, 36 graduate students received their white coats. Five students received a white coat in spring 2014.



- Citizenship:
 - Fall 2014
 - 6% of full-time Ph.D. students are U.S. citizens or permanent residents
 - 6% of both full- and part-time Ph.D. students are U.S. citizens or permanent residents
 - Spring 2013
 - 3% of full-time Ph.D. students are U.S. citizens or permanent residents
 - 8% of both full- and part-time Ph.D. students are U.S. citizens or permanent residents
 - Fall 2013
 - 2% of full-time Ph.D. students are U.S. citizens or permanent residents
 - 4% of both full- and part-time Ph.D. students are U.S. citizens or permanent residents

Goal II.B. Staff: Recruit, retain and support a highly qualified and diverse staff who provide key support for the school

Objective II.B.1. Develop and implement effective recruitment and selection processes

Objective II.B.2. Ensure staff roles and responsibilities are well articulated and match the current needs of the school

Objective II.B.3. Provide opportunities for staff to participate in ongoing development of skills to be prepared to meet evolving responsibilities

Objective II.B.4. Provide annual performance feedback to all staff members

Objective II.B.5. Assess job satisfaction annually

Measures of Success:

- > 90% retention rate over five years
- Percentage of staff who complete professional development training each year
- Percentage of staff attending annual school retreat
- Development of updated job descriptions for all staff
- Number of qualified applicants per open staff line
- Development of a systematic process for staff recruitment
- Annual evaluation of staff performance
- Implementation of staff appreciation practices (e.g., staff awards, appreciation luncheon)
- Regular assessment of staff satisfaction with work environment

Staff Retention Rate

In 2014, the staff retention rate was 84%.

- 2009: 91% retention. 23 staff positions. 2 left.
- 2010: 100% retention. 24 staff positions. 0 left.
- 2011: 96% retention rate. 24 staff positions. 1 left.
- 2012: 96% retention rate. 23 staff positions. 1 left. Instructional technology support staff retired and the position was centralized. One position was added for the Springfield expansion.
- 2013: 96% retention rate. 23 staff positions. Division of Pharmacology and Toxicology staff left and was replaced. In addition, we had a shared advancement officer and a shared development officer.
- 2014: 84% retention rate. 25 staff positions. 4 left. One new position was created in the Office of Experiential Learning to address a concern of the accrediting body. One position within the Office of Student Affairs was not recruited due to budgetary reasons and lack of need within the department. Three positions were recruited and filled. In addition, we had a shared advancement officer and a shared development officer.

Staff Development

100% of the staff completed professional development training in 2014. 100% of the staff participated with the development of the School of Pharmacy strategic plan. The development process took place throughout the year with all school meetings.

Number of Qualified Applicants Per Open Staff Line Position

- In the hiring of three staff members in 2014, UMKC Human Resources screened applicants and forwarded three applications to the school for each position. Interviews took place and offers were made to the most qualified candidates.
- Staff recruitment and selection processes:
 - The School of Pharmacy adheres to the recruitment process described on the UMKC Office of Human Resources web page (<http://www.umkc.edu/hr/recruitment/administrative-recruiting->

hiring-process.asp). Positions are posted on the Human Resources career opportunities web page, and candidates must apply online.

- Staff recruitments are overseen by the school’s business manager. The chair or director of the division or the area where the staff member will be assigned works with the business manager to design the position description, screen the applicants and develop the interview itinerary.
 - Responsibilities of the school include completing the hiring freeze exemption form, creating a job opening in eRecruit, reviewing the applications sent by the Human Resources office, interviewing applicants, completing reference checks for the final candidate, contacting the candidate to extend a tentative offer, initiating a criminal background check, and sending an e-mail to candidates who were interviewed but not selected. Human Resources assumes all responsibility for new-hire processing and employee orientation.
- Annual evaluation of staff performance: The guidelines from Human Resources state “a consistent 12 month review period for all employees is recommended across campus.” The School of Pharmacy follows the performance appraisal processes recommended by UMKC. Staff performance evaluations are completed in July of each year with a self-appraisal by the employee, followed by a performance appraisal by the supervisor.
 - Staff appreciation and recognition:
 - In April 2014, the dean hosted staff luncheons in Kansas City and Columbia in recognition of Administrative Professionals Day. Staff members received small gifts of appreciation from the School of Pharmacy and the Pharmacy Foundation.
 - In December 2014, the dean hosted a holiday luncheon for the faculty and staff in Kansas City. Staff awards were presented at the luncheon. The recipients were nominated and selected by a vote of all faculty and staff in the school. The names of the winners in each category were engraved on a plaque in the second-floor hallway of the Health Sciences Building. The names were also submitted to the campus staff awards committee as the School of Pharmacy’s nominees for the campus awards. The recipients were:
 - Human Resources Campus Collaboration Award: Nancy Bahner
 - Chancellor's Education First Award: Tamica Lige
 - Chancellor's True Unsung Hero Award: Sharon Self
 - Student Mentor Award: Shelly Janasz

Staff Development

- Both the UM system and the UMKC campus offer a range of staff development opportunities. The university and the school encourage attendance by staff at training seminars and development programs. These offerings provide support for work-related success and personal growth.
- The performance appraisal form has a section entitled “Training/Development Plans” that describes the staff member’s training and development need for the next evaluation period. These plans are approved by the supervisor. The self-appraisal form also includes the question “Indicate any training or development that you would like to have during the next review period.”
- In 2014, 100% of the staff participated in professional development activities. School of Pharmacy staff are each allotted \$500 per fiscal year to fund various staff development opportunities (training seminars, books, etc.) pending approval of the supervisor. Staff have until June 30 to use the funding each year. There are also many free resources available through the university.

Staff Diversity

2014	Staff		
	Male	Female	Total
American Indian			
Black		5	5
Hispanic			
White	4	16	20
Asian			
Not Reported			
Total	4	21	25

Goal II.C. Faculty: Recruit, retain and support a highly qualified and diverse faculty

Objective II.C.1. Align faculty recruitment with current programmatic needs

Objective II.C.2. Further develop practices that enhance faculty retention

Objective II.C.3. Provide written annual performance feedback for all faculty

Objective II.C.4. Provide opportunities for professional development for all faculty

Objective II.C.5. Develop and implement evaluation strategies to ensure all instructors (faculty, preceptors and adjunct faculty) provide quality educational experiences for students

Measures of Success:

- Percentage of new hires retained over first six years
- Annual faculty turnover
- Percentage of faculty making adequate progress toward tenure and promotion on annual review
- Peer-reviewed national/international publications regarding teaching/assessment
- Faculty national/international presentations/posters regarding teaching/assessment
- Faculty authored textbooks and book chapters (instructional materials)
- Percentage of faculty possessing advanced certification and licensure (when applicable)
- Regular feedback on faculty performance
- Provision of faculty supports and resources (e.g., faculty development seminars, support for presentations at scientific meetings)
- Editorial board appointments
- Elected leaders in local, regional, and national organizations

The school seeks to recruit, retain, and support a highly qualified and diverse faculty. Our faculty represent a range of ethnicities/races. Faculty demographics as of September 2015 are provided below.

Clinical	Female	Male	Grand Total
Hispanic/Latino	1	0	1
White	22	8	30
Grand Total	23	8	31

Non Clinical Academic	Female	Male	Grand Total
Asian	0	10	10
Black/African American	0	1	1
White	4	8	12
Grand Total	4	19	23

	Female	Male	Grand Total
Asian		10	10
PROF, ASOC		6	6
PROF, ASOC RESRCH		1	1
PROFESSOR		3	3
Black/African American		1	1
PROFESSOR		1	1
Hispanic/Latino	1		1
PROF, ASOC CLINCL	1		1
White	26	16	42
PROF, ASOC	1	1	2
PROF, ASOC CLINCL	8	2	10
PROF, ASOC RESRCH		1	1
PROF, AST		1	1
PROF, AST CLINCL	13	4	15
PROF, CLINCL	1	2	3
PROFESSOR	3	5	7
Grand Total	27	27	54

Faculty Hires, Retention, and Promotion

- Faculty hires from 2009-2014:
 - 2009: Linda Garavalia (transferred from A&S), Kristen DiDonato, Erica Ottis
 - 2010: Russell Melchert, Eric Wombwell, Daniel Aistrophe, David Phillips, Kelly Cochran, Lauren Odum, Mark Patterson
 - 2011: Lynn Anliker, Andrew Bzowyckyj, Angela Brownfield, Mark Sawkin
 - 2012: N/A
 - 2013: Kylie Barnes, Amanda Stahnke
 - 2014: Paul Gubbins, Heather Lyons-Burney, Diane McClaskey, Dominick Salvatore, Roger Sommi (promotion to Associate Dean at MU)
- Retention of new hires: From 2009-2014, 19 new hires, a transfer from the College of Arts and Sciences and an internal transfer. Seventeen are still with the school, for an 81% retention rate.
- Faculty turnover: From 2009 through 2014, 15 faculty members left the School of Pharmacy:
 - 2009: 3 (one was a retirement)
 - 2010: 1
 - 2011: 1
 - 2012: 3 (includes 1 retiree who is now emeritus faculty)

- 2013: 3
- 2014: 5 (one was an early retirement, one was an internal transfer)
- Progress toward tenure and promotion with award effective September 1, 2014:
 - Three non-tenure track faculty members applied for and received promotions in 2014.
 - The Promotion and Tenure Committee conducted an annual promotion and tenure review of one faculty member.

	2009	2010	2011	2012	2013	2014
# under tenure review			1	3	1	
# awarded tenure			1	3	1	
# TT promoted	1	2	3	3	3	
# NTT promoted	1		1	1	2	3
# TT annual reviews	6	4	7	4	1	1

Teaching or Assessment-Related Publications

Bartelme, K., **Bzowyckyj, A.**, Frueh, J., Speedie, M., Jacobson, G., & Sorensen, T.D. (2014). Experience and outcomes of a pharmaceutical care leadership residency program. *Innovations in Pharmacy*, 5(3), 1-9.

Day, K., Hoelscher, D., Huke, M.A., & **Smith, A.J.** (2014). Supporting research efforts of residents through annual resident research day [Letter]. *American Journal of Health-System Pharmacy*, 71(17), 1434-1435.

Dering-Anderson, A.M., **Gubbins, P.O.**, Klepser, D., & Klepser M.E. (2014). Responses to “Is it time to start teaching basic diagnostics?” [Letter to the editor]. *American Journal of Pharmaceutical Education*, 78(2), Article 42.

Fulford, M., Souza, J., Alston, G., McLaughlin, J., **Garavalia, L.**, Franson, K., et al. (2014). Are you CAPE-A.B.L.E.? Center for the Advancement of Pharmacy Education: An assessment blueprint for learning experiences. *AACP Educational Resources* at <http://www.aacp.org/resources/education/cape/Documents/AssessmentCAPEPaper-Final11.pdf>

Gubbins, P.O. (2014). The scholarship of teaching and learning: An opportunity for clinical faculty members in academic pharmacy and other health professions to develop a program of scholarship. *International Journal for the Scholarship of Teaching and Learning*, 8(1), Article 3.

Janke, K.K., Nelson, M.H., **Bzowyckyj, A.S.**, Fuentes, D.G., Rosenberg, E., & Dicenzo, R. (2014). Deliberate Integration of student leadership development in doctor of pharmacy programs. *American Association of Colleges of Pharmacy Center for the Advancement of Pharmacy Education Supplemental Materials* at <http://www.aacp.org/resources/education/cape/documents/SLDCAPEManuscriptFINAL.pdf>.

Payakachat, N., **Gubbins, P.O.**, Ragland, D., Flowers, S.K., & Stowe, C.D. (2014). Factors associated with health-related quality of life of student pharmacists. *American Journal of Pharmaceutical Education*, 78(1), Article 7.

Sperry, M., Pace, H., Sawkin, M., Ralston, E., & Deppe, S. (2014). Student perspectives on prescriptive authority. *Currents in Pharmacy Teaching and Learning*, 6(6), 831-841.

Swan, J.T., Giouroukakis, M., Shank, B.R., Crona, D., Berger, K., & **Wombwell, E.** (2014). The value of pharmacy residency training for health systems: An annotated bibliography. *Journal of Pharmacy Practice*, 27(4), 399-411.

Participation in Peer Review of Teaching in 2013-2014

- Leigh-Anne Nelson – peer teaching evaluation for Kelly Cochran
- Dan Aistrophe – peer teaching evaluation for Kelly Cochran
- Steve Stoner – peer teaching evaluation for Amanda Stahnke
- Steve Stoner – peer teaching evaluation for Kathy Snella
- Lauren Odum – peer teaching evaluation for Steve Stoner
- Lauren Odum – peer teaching evaluation for Cameron Lindsey
- Lauren Odum – peer teaching evaluation for Eric Wombwell
- Patricia Marken – reviewed 4 lectures by Orisa Igwe (2 pharmacology, 2 toxicology).
Observed lectures, reviewed slides and gave written and verbal feedback to Dr. Igwe.

Faculty Certifications and Licensure Status

In the Division of Pharmacy Practice and Administration in 2014, 28 out of 43 faculty (65.1%) had board certifications; 39 out of the 43 faculty (90.7%) had active pharmacist licenses in one or more states.

Name	Certification(s)	Licensure Status
Aistrophe, Daniel		Missouri active; Minnesota active
Barnes, Kylie	BCPS	Missouri active; West Virginia active
Brown, Wayne	FSCIP	Missouri active
Brownfield, Angela		Missouri active
Bryant, Patrick	FSCIP	Missouri active; Nebraska active
Bzowickij, Andrew	BCPS, CDE	Missouri active; Minnesota active; Connecticut active
Cochran, Kelly	BCPS	Missouri active; Iowa active; Illinois active; Indiana active
DiDonato, Kristen	BCACP	Ohio active; Missouri active
Fincham, Jack		Colorado active; Kansas active; Alabama inactive, Georgia inactive, Minnesota inactive, Mississippi inactive, Nebraska inactive
Garavalia, Linda		n/a
Graham, Maqual		Missouri active
Gubbins, Paul		Missouri active; Arkansas active
Hampton, Jeremy	BCPS	Missouri active; North Carolina inactive
Hardinger, Karen	BCPS	Kansas active; Missouri active
Kassel, Lynn	BCPS	Missouri active; Iowa active; Colorado active
Knell, Maureen	BCPS, BCACP	Missouri active
Kuehl, Peggy	BCPS, FCCP	South Dakota inactive; Minnesota active; Illinois inactive; Missouri active; Kansas active
Lindsey, Cameron	BC-ADM, CDE, BCACP	Missouri active
Liu, Yifei		n/a
Lyons-Burney, Heather		Missouri active
Marken, Patricia	BCPP, FCCP	Missouri active
McClaskey, Diane	BCPS	Missouri active

Name	Certification(s)	Licensure Status
McQueen, Cydney		Missouri active; Kansas active
Mead, Tatum		Missouri active; Iowa active
Nelson, Leigh Anne	BCPP	Missouri active
Odum, Lauren	BCPS	Missouri active
Ottis, Erica	BCPS	Missouri active
Pace, Heather		Missouri active
Patterson, Mark		n/a
Rasu, Rafia		n/a
Ruehter, Valerie	BCPP	Missouri active
Salvatore, Dominick	BCPS	Missouri active
Santee, Jennifer		Missouri active; Iowa active
Sawkin, Mark	AAHIVP	Kansas active; Missouri active
Schauner, Stephanie	BCPS	Missouri active
Smith, Andrew	BCPS (AQ Cardiology)	Missouri active; Kansas active
Snella, Kathleen	BCPS, FCCP	Missouri active; Texas inactive
Sommi, Roger	BCPP	Missouri active; Texas active
Sperry, Morgan		Missouri active; Nebraska active; Iowa active
Stahnke, Amanda	BCACP	Missouri active; Illinois active
Stoner, Steven	BCPP	Missouri active; Nebraska inactive
Winans, Beth	BCPP	Missouri active; Oklahoma active
Wombwell, Eric	BCPS	Missouri active

In the Division of Pharmaceutical Sciences, one faculty member is a registered pharmacist—Thomas Johnston (Kansas active; Minnesota inactive). In the Division of Pharmacology and Toxicology, two faculty members are registered pharmacists—Orisa Igwe (Louisiana inactive; Minnesota inactive; Ohio inactive) and Russell Melchert (Arkansas active; Oklahoma active).

Annual Performance Feedback for All Faculty

A structured faculty performance evaluation is conducted each year via a management by objectives (MBO) process. Each faculty member provides their division chair with a set of projected goals for the upcoming academic year and a summary of their performance on the MBO for the current year. Faculty also submit, via the online faculty accomplishment system, a summary of all scholarly activity, teaching, and service provided to the school, university, profession, and community. All of the information is reviewed by the division chair and evaluated based on attainment of goals and objectives as stated in the current year MBO and on faculty citizenship. Discussion points with regard to performance of the previous year, as well as the establishment of goals for the upcoming year, are identified by the division chairs. Chairs meet personally with each faculty member to discuss the issues, and a memorandum summarizing the performance of the past year and the objectives for the coming year is sent to the faculty member for discussion and signature.

Faculty Advisors

Each entering student is assigned a specific faculty advisor for the duration of their enrollment in the doctor of pharmacy program. Average number of advisees:

- 2012-2013
 - 39 faculty participated as advisors
 - Each faculty averages 13 advisees (range 3-22)
- 2013-2014
 - 40 faculty participated as advisors
 - Each faculty averages 12.5 advisees (range 2-19)
- 2014-2015
 - 42 faculty participated as advisors
 - Each faculty averages 12.2 advisees (range 6-22)

Professional Development Opportunities for Faculty

The dean appoints faculty to a Faculty Development Task Force each year.

- The task force felt there are numerous opportunities present within the school, campus and university system for faculty development. Two members created a table with available opportunities, which was made available to faculty.
- With the assistance of the dean's office, the task force hosted seven faculty development sessions in 2013-14.
 - 9/26/13, ACPE standards for the Pharm.D. program (Linda Garavalia)
 - Attendance – 24
 - 10/23/13, Curriculum review process (curricular leadership team)
 - Attendance – 21
 - 11/13/13, Interprofessional Education Seminar – Erica Ottis
 - Attendance – 26
 - 12/4/13, Developing collaborative research projects within a community-based pharmacy network (Benjamin Bluml)
 - Attendance – 12
 - 2/12/14, Introduction to new technology in 5309 and ASC21 – Ben Zygmunt
 - Attendance – 26
 - 3/19/14, Distance/online education (Devon Cancilla)
 - Attendance – 15
 - 4/23/14, Academic versus Disciplinary decisions (Patricia Marken)
 - Attendance – 20
 - Pending sessions in development:
 - Selecting an appropriate journal to seek for publication
 - Test question writing, "Tutorial on Multiple Choice Question Writing"
 - Best practices for faculty development roundtable
 - Distance education, focus on engagement/facilitators
 - Flipping the classroom

- This taskforce also began a “book of the month” program. The following books were promoted:
 - November 2013: *Decisive: How to Make Better Choices in Life and Work* by Chip Heath and Dan Heath
 - December 2013: *Drive: The Surprising Truth About What Motivates Us* by Daniel H. Pink
 - January 2014: *Outliers: The Story of Success* by Malcolm Gladwell
 - February 2014: *Made to Stick: Why Some Ideas Survive and Others Die* by Chip and Dan Heath
 - March 2014: *Leadership and Self-Deception: Getting out of the Box* by The Arbinger Institute
 - April 2014: *The Immortal Life of Henrietta Lacks* by Rebecca Skloot
 - May 2014: *Emotional Intelligence: Why It Can Matter More Than IQ* by Daniel Goleman
 - June 2014: *Thanks for the Feedback: The Science and Art of Receiving Feedback Well* by Douglas Stone and Sheila Heen

Included in the awards and incentives for the School of Pharmacy faculty are:

- Funding for development leave: an opportunity for faculty to gain or expand their skills in practice or research under the guidance of experts in their area of interest, including learning new educational techniques to enhance or expand their effectiveness as an educator.
- Support for practice/education innovations: faculty members can request funding for resources such as equipment and texts that will enhance the educational environment for their students.

Faculty Awards and Honors

- At the fall 2014 annual convention of the Missouri Pharmacy Association, the following faculty members received awards:
 - Andrew Bzowyckyj received the Young Pharmacist Award
 - Kelly Cochran received the UMKC Faculty Member of the Year Award
 - The incoming MPA president selected Russell Melchert to receive the honor of being designated the MPA honorary president.
- Beth Winans received the 2014 Innovative Practice Award from the College of Psychiatric and Neurologic Pharmacists.
- Andrew Bzowyckyj was named the American Association of Diabetes Educators’ overall winner for pharmacy best practices in diabetes care. He also received a 2014 AACP New Investigator Award.
- Amanda Stahnke received a 2014 Volunteer of the Year Award from the Missouri Society of Health-System Pharmacists.
- Simon Friedman was recognized as an emerging investigator in the *Molecular BioSystems* journal, published by the Royal Society of Chemistry.
- Anil Kumar received the 2014 UMKC Trustees Faculty Fellowship Award for excellence in research and creative activity.
- Simon Friedman was named as the 2014 recipient of the Governor’s Award for Excellence in Teaching
- Ashim Mitra was named as the 2014 recipient of the Chancellor’s Award for Excellence in Graduate Mentoring
- Eric Wombwell was named the 2014 recipient of the Provost’s Award for Excellence in Teaching

Editorial Boards

- Hari Bhat – *Advances in Medicine; Journal of Pharmacology and Clinical Toxicology*; Advisory Board Member, *OA Medical Hypothesis*
- Andrew Bzowyckyj – *Journal of Health-System Pharmacy Residents (JHPR)*

- Jack Fincham – Associate Editor, *American Journal of Pharmaceutical Education*; Editorial Board Member, *Annals of Pharmacotherapy*; Regional Editor for North America, *The International Journal of Pharmacy Practice*; Editorial Board Member, *American Health and Drug Benefits*
- Linda Garavalia – *Faculty Development Journal*
- Paul Gubbins – *Current Medical Research and Opinions*; *Antimicrobial Agents and Chemotherapy*; *Scientifica*; *Current Fungal Infection Reports*
- Bill Gutheil – *SOJ Pharmacy and Pharmaceutical Sciences*; *UK Journal of Pharmaceutical and Biosciences*
- Karen Hardinger – *Conference Papers in Medicine*; *Dataset Papers in Medicine*; *Conference Papers in Immunology*; *World Journal of Transplantation*
- Orisa Igwe – *SOJ Anesthesiology and Pain Management*; *SOJ Pharmacy and Pharmaceutical Sciences*; *UK Journal of Pharmaceutical and Biosciences*
- Peggy Kuehl – *Research in Social and Administrative Pharmacy*
- Anil Kumar – Academic Editor, *PLOSone*; Member, *Journal of NeuroImmune Pharmacology*; Member, *Journal of NeuroVirology*
- Thomas Johnston – *Journal of Pharmacy and Pharmacology*; *Journal of Ocular Biology, Diseases, and Informatics*
- Chi Lee – *Advances in Biomaterials* (Hindawi Publishing Corp)
- Yifei Liu – *Advances in Therapy*; *Journal of the American Pharmacists Association*; *Dermatology and Therapy*
- Russell Melchert – *Cardiovascular Toxicology*; *Toxicology in Vitro*; *Regenerative Medicine Research*
- Ashim Mitra – *OA Drug Design & Delivery*; *Journal of Biotechnology & Biomaterials*; *Current Eye Research*; *European Journal of Drug Metabolism and Pharmacokinetics*; *Experimental Eye Research/Elsevier Editorial System*; Editorial Advisory Board, *Pharmaceutical Research*
- Jianping Wang – *Neuroscience Journal*; *World Journal of Psychiatry*

Faculty as Elected Officers in Local, Regional, and National Pharmacy or Health-Related Professional Organizations 2013-2014

- Andrew Bzowickyj – Secretary-Treasurer, Kappa Psi Pharmaceutical Fraternity, Kansas City Graduate Chapter; New Practitioner Officer, American Pharmacists Association, Academy of Pharmacy Practice and Management (APhA-AAPM)
- Bill Gutheil – Councilor for the Kansas City Section of the American Chemical Society; Member of the American Chemical Society National Committee on Patents, Trademarks, and Related Matters
- Anil Kumar – President Elect, Society of NeuroImmune Pharmacology
- Diane McClaskey – President Missouri Society of Health Systems Pharmacists
- Ashim Mitra – Selection Committee for American Association for Advancement of Science; Chairman, USP Council of Experts, General Chapter <771> Ophthalmic Preparations Expert Panel; Member, ARVO Awards and Grants Committee (PH Section)
- Rafia Rasu – Officer of National Organizational Affairs Committee of AMCP
- Andrew Smith – Immediate Past President, Missouri Society of Health-System Pharmacists; Region IV Councilor, Rho Chi Pharmacy Honor Society; Past-President, Greater Kansas City Society of Health-System Pharmacists
- Steven Stoner – AACP Council of Sections Secretary; AACP Pharmacy Practice Section in the COS, Chair; AACP COS Chair of Strategic Planning Task Force, appointed; CPNP Chair of Business Development, appointed

Faculty Recruitment

In 2014, the school recruited for five positions:

- Associate dean/professor for the Springfield site
- Associate dean/professor for the Columbia site
- Assistant clinical professor for the Division of Pharmacy Practice and Administration at the Columbia site
- Two assistant clinical professors for the Division of Pharmacy Practice and Administration at the Springfield site

AACP Faculty Survey Results: Provision of Faculty Resources and Supports

On the 2013 AACP faculty survey, four items had ratings that fell below the school's benchmark of 75% who agreed/strongly agreed with the statement. They survey is next scheduled to be administered in spring 2015.

SECTION I: Administrative System

I am given the opportunity to provide evaluative feedback of the administrators.

2011	2012	2013
33/47 (70%)	23/36 (63.9%)	25/32 (78.1%)

SECTION II: Recruitment and Retention

I receive formal feedback on my performance on a regular basis.

35/48 (73%)	31/36 (86.1%)	29/33 (87.9%)
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The college/school consistently applies promotion and/or tenure policies and procedures.

28/37 (76%)	22/32 (68.8%)	25/29 (86.2%)
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SECTION III: Infrastructure

I receive adequate support staff resources.

38/49 (78%)	30/38 (78.9%)	24/33 (72.7%)
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The physical facilities enable out-of-class interaction among administration, faculty, and students.

40/49 (82%)	26/36 (72.2%)	21/31 (67.7%)
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SECTION V: Faculty Development

Funds are available to support my faculty development.

30/46 (65%)	28/38 (73.7%)	22/30 (73.3%)
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Programs are available for non-practice faculty to orient them to the pharmacy profession and professional education.

22/35 (63%)	19/26 (73%)	14/21 (66.7%)
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SECTION VIII: Academic Roles

In my opinion, the proportion of my time spent on research is:

Appropriate	Appropriate	Appropriate
28/47 (60%)	20/23 (87%)	32/33 (97%)

In my opinion, the proportion of my time spent on service is:

37/48 (77%)	25/36 (69.4%)	28/33 (84.8%)
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In my opinion, the proportion of my time spent on clinical service is:

15/27 (56%)	13/20 (65%)	18/23 (78.3%)
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Seven items on the 2013 survey received a rating of 98% or above:

SECTION I: Administrative System

I am aware that my college/school has policies for dealing with harassment and discrimination.

33/33 (100%)

SECTION II: Recruitment and Retention

I am encouraged to engage in scholarly activity.

33/33 (100%)

SECTION III: Infrastructure

I have access to library and other educational resources.

31/31 (100%)

SECTION VI: Curriculum, Teaching, and Assessment

The Pharm.D. Program prepares students to...

develop and use patient-specific pharmacy care plans.

31/31 (100%)

communicate with patients, caregivers, and other members of the interprofessional health care team.

33/33 (100%)

apply state and federal laws and regulations to the practice of pharmacy.

31/31 (100%)

maintain professional competence

32/32 (100%)

Strategic Initiative III. Research:

Advance scientific innovation and translational research

Goal III.A. Foster the creation of high quality research with on-going annual funding of \$5 million

Objective III.A.1. Support collaboration within and across all divisions (internal)

Objective III.A.2. Promote collaboration to strengthen graduate research

Objective III.A.3. Develop and implement interdisciplinary research projects as opportunities for funding

Objective III.A.4. Establish a mechanism for bridge grant(s) by the School of Pharmacy

Objective III.A.5. Establish a mechanism to increase research skills of faculty (practical/grant writing)

Measures of Success:

- NIH funding (\$) per basic science FTE AACP ranking
- Non-NIH federal funding (\$)
- Industry, foundation and other funding (\$)
- Number of grant proposals submitted each year
- Number of grant proposals funded each year
- Participation in grantsmanship seminars/workshops

Total NIH Funding**

	2005	2006	2007	2008	2009	2010
School (n)	1,594,354	1,120,511	1,060,897	3,150,844	3,070,490	2,467,634
National (avg.)	3,749,402	3,865,412	3,902,247	4,167,440	4,709,979	4,907,975
Cohort (avg.)	4,409,811	6,541,481	5,735,792	5,037,814	5,945,896	5,517,231

Cohort: Creighton University, Southern Illinois University-Edwardsville, The University of Iowa, University of Arkansas for Medical Sciences, University of Kansas, University of Nebraska Medical Center

**report from AAMS, March 2014 (most recent data available)

NIH Funding Per FTE AACP Ranking

Fiscal year	2009	2010	2011	2012	2013	2014
AACP NIH ranking	26/68	36/73	35/75	40/79	39/80	not available
Active grants	34	31	41	33	27	27
Proposals submitted	62	53	36	22	30	39

- The UMKC School of Pharmacy ranked 44 out of 93 for all grants in the AACP rankings for FY 2013. Grants included are NIH, other federal, and non-federal PI grants and co-PI subgrants for FY 2013. Numbers are not yet available for 2014.
- In 2014, faculty in the School of Pharmacy had 27 active grants: 10 NIH, 1 NSF, 1 DOD, and 15 industry/foundation/other grants. Four funded grants began in 2013.

Research Support

- The dean and the Research Advisory Council approved a bridge funding policy in August 2012, and distributed it to all faculty in the school. The dean committed funding of \$100,000 for 2012-2013,

and requests were limited to \$15,000 each. Instructions for the application procedure and review process included:

- “Faculty must submit an application to the division chair. Applications are due on or before September 17, 2012, with a possible start date of January 1, 2013.”
- “The division chair will forward the proposal along with a written recommendation regarding disposition of the proposal to the dean. The dean will forward the proposal and chair’s recommendation to the Research Advisory Council (RAC) for review. The chair of the applicant’s division will not participate in the deliberations of the RAC regarding the proposal other than to provide a written recommendation. The RAC will provide a recommendation to the dean regarding the disposition of the proposal. The dean will make the final funding decision.”
- In 2012, the dean received six proposals requesting a total of \$84,150; three proposals from faculty in the Division of Pharmacology and Toxicology, and three from faculty in the Division of Pharmaceutical Sciences. The dean accepted the council’s recommendation to fund all six proposals. The applicants were given instructions to report back to the council as to how they used the funding and project outcomes.
- In June 2012, the school sponsored a patent seminar. Manfred Wolff conducted the afternoon seminar. He is a registered patent agent and pharmaceutical/biotechnology/medicinal chemistry patent consultant.

Participation in Grantsmanship Seminars/Workshops

- 2011: 42 School of Pharmacy faculty members participated in a grant writing seminar sponsored by the school and provided by David Morrison. The seminar addressed fundamentals of grant writing and the submission process. Dr. Morrison has a Ph.D. in molecular biology and biophysics from Yale University. He has received continuous funding from NIH since the early 1970s, and he provides grant-writing seminars and workshops for faculty at universities across the country.
- 2012: Erica Ottis
- 2013: Hari Bhat, Erica Ottis
- 2014: None

Number of Grant Proposals Submitted in 2014 (total = 39)

- Division of Pharmaceutical Sciences (20)
 - Kun Cheng – American Cancer Society
 - Kun Cheng – NIH
 - Simon Friedman – NIH of Diabetes and Digestive
 - William Gutheil – American Heart Association
 - William Gutheil – NIH
 - Thomas Johnston – NIH National Eye Institute
 - Thomas Johnston – Research to Prevent Blindness
 - Chi Lee – NSF
 - Chi Lee – NIH
 - Ashim Mitra – NIH
 - Ashim Mitra – Dept. of Defense
 - Ashim Mitra – NIH
 - Ashim Mitra – NIH
 - Ashim Mitra – NIH
 - Ashim Mitra – NIH
 - Ashim Mitra – Univ. of KS Med Center Research Inst., INC
 - Celestin Youan – NIH Natl Inst. of Allergy and Infectious

- Celestin Youan – NIH Natl Inst. of Allergy and Infectious
- Celestin Youan – NIH Natl Inst. of Deafness and other Comm
- Division of Pharmacology and Toxicology (10)
 - Hari Bhat – NIH
 - Hari Bhat – NIH Natl Cancer Inst.
 - Hari Bhat – NIH
 - Orisa Igwe – Department of Defense
 - Orisa Igwe – NIH Natl Inst. of Dental and Craniofacial
 - Orisa Igwe – NIH Natl Inst. of Dental and Craniofacial
 - Anil Kumar – NIH
 - Anil Kumar – NIH
 - Anil Kumar – NIH
 - Anil Kumar – NIH
- Division of Pharmacy Practice and Administration (9)
 - Leigh Anne Nelson – The Feinstein Institute for Medical Research
 - Leigh Anne Nelson – The Feinstein Institute for Medical Research
 - Leigh Anne Nelson – The Feinstein Institute for Medical Research
 - Leigh Anne Nelson – The Feinstein Institute for Medical Research
 - Mark Patterson – KC Area Life Sciences Institute
 - Rafia Rasu – University of Western Cape
 - Roger Sommi – Auspex Pharmaceuticals
 - Roger Sommi – Alkermes INC
 - Roger Sommi – Auspex Pharmaceuticals

Grants, 2009-Present (those active in 2014 are highlighted in yellow)

<i>Principal Investigator</i>	<i>Agency</i>	<i>Active Dates</i>	<i>Direct Costs</i>	<i>Indirect Costs</i>
Hari Bhat	NIH National Cancer Institute	8/15/2009–7/31/2012	\$264,013.00	\$129,366.00
Andrew Bzowickyj	American Association of Colleges of Pharmacy	01/01/2014–12/31/2014	\$4,519.00	
Kun Cheng	U.S. Department of Defense	09/01/2008–09/30/2009	\$73,212.00	\$35,874.00
Kun Cheng	NIH National Institute on Alcohol Abuse and Alcoholism	9/10/2009–8/31/2011	\$155,477.00	\$54,303.00
Kun Cheng	NIH National Institute on Alcohol Abuse and Alcoholism	9/10/2009–8/31/2011	\$130,242.00	\$50,222.00
Kun Cheng	NIH National Cancer Institute	1/1/2010–12/31/2012	\$259,216.00	\$106,237.00
Kun Cheng	NIH National Institute on Alcohol Abuse and Alcoholism	9/15/2012–8/31/2017	\$522,819.00	\$228,827.00
Kristen DiDonato	Natl Assn of Chain Drug Stores Fndtn	1/01/2013–07/31/2013	\$2,500.00	
Simon Friedman	NIH National Institute of Health	04/1/2003–03/31/2009	\$718,102.00	\$256,020.00
Simon Friedman	University of Missouri Fast Track	07/01/2014–07/01/2015	\$50,000.00	
Simon Friedman	NSF Division of Chemistry	9/15/2011–8/31/2014	\$175,394.00	\$69,518.00
Maqual Graham	Midwest Biomedical Research Foundation	10/1/2008–9/30/2011	\$56,548.00	
Maqual Graham	Midwest Biomedical Research Foundation	10/1/2008–9/30/2012	\$37,746.00	
Maqual Graham	Midwest Biomedical Research Foundation	10/1/2009–9/30/2012	\$36,088.00	
Maqual Graham	Midwest Biomedical Research Foundation	10/1/2009–9/30/2012	\$39,675.00	
Maqual Graham	Midwest Biomedical Research Foundation	10/1/2011–9/30/2012	\$720.00	

<i>Principal Investigator</i>	<i>Agency</i>	<i>Active Dates</i>	<i>Direct Costs</i>	<i>Indirect Costs</i>
William Gutheil	University of Kansas Medical Center Research Institute, Inc.	9/26/2011–5/16/2012	\$21,974.00	\$9,921.00
Orisa Igwe	NIH National Institute of Dental And Craniofacial Research	7/1/2011–6/30/2014	\$269,755.00	\$130,431.00
Thomas Johnston	Trilogic Pharma, LLC	04/01/2008–03/31/2009	\$48,246.00	\$6,754.00
Thomas Johnston	Trilogic Pharma, LLC	04/01/2009–03/30/2010	\$73,400.00	\$10,276.00
Thomas Johnston	Trilogic Pharma, LLC	04/01/2010–3/30/2011	\$77,786.00	\$10,890.00
Thomas Johnston	Trilogic Pharma, LLC	4/1/2011–9/30/2011	\$37,401.00	\$5,236.00
Thomas Johnston	Trilogic Pharma, LLC	8/1/2012–1/31/2013	\$39,688.00	\$11,906.00
Peggy Kuehl	National Association of Chain Drug Stores Foundation	07/01/2011–06/30/2014	\$50,000.00	
Anil Kumar	NIH National Institute on Alcohol Abuse and Alcoholism	4/1/2007–3/31/2011	\$783,798.00	\$368,724.00
Anil Kumar	NIH National Institute on Drug Abuse	2/1/2008–11/30/2011	\$302,609.00	\$147,376.00
Anil Kumar	NIH National Institute on Drug Abuse	9/30/2008–3/31/2015	\$1,256,595.00	\$315,695.00
Anil Kumar	NIH National Institute on Drug Abuse	4/1/2009–3/31/2015	\$745,094.00	\$356,222.00
Anil Kumar	NIH National Institute on Alcohol Abuse and Alcoholism	9/10/2012–6/30/2017	\$446,530.00	\$205,710.00
Anil Kumar	NIH National Institute on Alcohol Abuse and Alcoholism	03/21/2013–06/30/2014	\$15,000.00	\$1,500.00
Santosh Kumar	NIH National Institute on Drug Abuse	5/1/2011–4/30/2014	\$175,212.00	\$86,962.00
Santosh Kumar	NIH National Institute on Drug Abuse	9/20/2013–08/31/2014	\$174,227.00	\$74,923.00
Chi Lee	Missouri Department of Economic Development	1/1/2009–12/31/2012	\$263,866.00	\$60,134.00
Cameron Lindsey	Midwest Biomedical Research Foundation	10/1/2008–9/30/2010	\$2,405.00	
Yifei Liu	Abbott Lab	11/01/2009–12/31/2009	\$10,000.00	\$5,000.00
Yifei Liu	Abbott Lab	04/01/2010–06/30/2010	\$13,333.00	\$6,667.00
Yifei Liu	Abbott Lab	5/24/2012–02/28/2014	\$33,333.00	\$16,667.00
Ashim Mitra	NIH National Eye Institute	1/15/2006–12/31/2011	\$1,077,662.00	\$435,981.00
Ashim Mitra	St. Luke's Hospital	02/01/2007–01/31/2009	\$19,800.00	
Ashim Mitra	Lux Biosciences, Inc.	05/01/2007–04/30/2009	\$75,110.00	\$10,390.00
Ashim Mitra	St. Luke's Hospital	10/25/2007–10/24/2009	\$24,600.00	
Ashim Mitra	Missouri Life Science Research Board	01/01/2008–12/31/2010	\$259,287.00	\$52,986.00
Ashim Mitra	NIH National Institute of Allergy and Infectious Diseases	1/15/2008–12/31/2014	\$1,029,666.00	\$439,838.00
Ashim Mitra	Lux Biosciences, Inc.	02/01/2008–01/31/2009	\$31,660.00	\$3,680.00
Ashim Mitra	NIH National Institute of Health	03/01/2008–02/28/2009	\$7,350.00	
Ashim Mitra	Lux Biosciences, Inc.	02/12/2010–03/11/2011	\$4,000.00	
Ashim Mitra	NIH National Eye Institute	4/1/2010–3/31/2012	\$727,422.00	\$274,976.00
Ashim Mitra	Summa Health System	9/1/2011–5/31/2014	\$128,010.00	\$45,328.00
Ashim Mitra	I-Novion, Inc.	5/14/2013–06/30/2015	\$2,883.00	\$1,470.00
Mridul Mukherji	Aplastic Anemia & MDS International Foundation	7/1/2011–6/30/2013	\$54,545.00	\$5,455.00
Mridul Mukherji	US Army Medical Research	6/20/2013–6/19/2016	\$131,057.00	\$55,422.00
Mridul Mukherji	St Luke's Hospital	02/01/2013–01/31/2016	\$11,891.00	

<i>Principal Investigator</i>	<i>Agency</i>	<i>Active Dates</i>	<i>Direct Costs</i>	<i>Indirect Costs</i>
Leigh Anne Nelson	United Biosource Corp	03/07/2007–12/31/2009	\$1,905.00	\$495.00
Leigh Anne Nelson	Covance, Inc.	12/1/2008–12/1/2014	\$62,576.00	\$12,515.00
Leigh Anne Nelson	Covance, Inc.	7/1/2009–6/30/2012	\$15,652.00	\$3,130.00
Leigh Anne Nelson	The Feinstein Institute For Medical Research	3/1/2010–9/20/2014	\$174,033.00	\$17,404.00
Leigh Anne Nelson	The Feinstein Institute For Medical Research	9/21/2011–3/01/2014	\$39,133.00	
Leigh Anne Nelson	Otsuka Pharmaceutical Development & Commercialization	12/1/2011–12/1/2013	\$18,918.00	\$4,918.00
Leigh Anne Nelson	The Feinstein Institute For Medical Research	7/1/2013–06/30/2015	\$21,557.00	\$5,605.00
Mark Patterson	University of Missouri Research Board	7/26/2011–7/26/2012	\$26,400.00	
Mark Patterson	University of KS Medical Research Institute, Inc.	11/25/2013–03/31/2015	\$1,519.00	
Mark Patterson	Missouri Dept. of Social Services	01/01/2014–12/31/2014	\$102,755.00	\$8,860.00
Rafia Rasu	University of Missouri Research Board	12/21/2009–12/20/2011	\$18,000.00	
Rafia Rasu	Abbott Lab	9/1/2010–4/30/2012	\$40,000.00	\$20,000.00
Rafia Rasu	University of KS Medical Research Institute, Inc.	05/01/2013–04/30/2014	\$4,210.00	
Roger Sommi	Eli Lilly and Company	07/01/2004–12/31/2009	\$81,496.00	\$21,189.00
Roger Sommi	Sanofi Aventis	9/1/2008–9/1/2012	\$26,825.00	\$6,975.00
Roger Sommi	Janssen Scientific Affairs, LLC	7/1/2010–12/31/2013	\$82,043.00	\$21,331.00
Roger Sommi	Auspex Pharmaceuticals	08/01/2014–07/31/2015	\$4,425.00	\$1,372.00
Jianping Wang, M.D.	University of Missouri Research Board	9/1/2011–8/30/2013	\$63,000.00	
Elizabeth Winans	Health Research Associates, Inc.	11/1/2010–12/31/2011	\$19,712.00	\$4,088.00
BiBotti Celestin Youan	Epilepsy Foundation of America	10/01/2006–12/31/2009	\$48,750.00	
BiBotti Celestin Youan	NIH National Institute of Allergy And Infectious Diseases	7/22/2009–6/30/2012	\$279,500.00	\$91,834.00
BiBotti Celestin Youan	NIH National Institute of Allergy And Infectious Diseases	8/20/2011–07/31/2016	\$897,282.00	\$326,989.00
TOTAL			\$12,981,157.00	\$4,633,592.00

Goal III.B. Establish and maintain a national reputation as a leader in scientific innovation and translational research

Objective III.B.1. Generate patents, publications in high impact journals, and presentations at national and international meetings

Objective III.B.2. Promote professional service, such as membership on editorial boards, participation in professional organizations, service on grant review study panels, leadership in professional societies, etc.

Measures of Success:

- Peer-reviewed national/international publications regarding empirical or secondary research
- Research presentations/posters at national and international scientific meetings
- Number of faculty on NIH review panels

Peer-Reviewed National and International Journal Research and Literature Review Articles

School of Pharmacy faculty names are highlighted. The following are publications with a print date of 2014 including articles in peer-reviewed national and international journals, book chapters, and other scholarly work, such as viewpoints and brief research reports.

	School Divisions		
	Pharmaceutical Sciences (n=8)	Pharmacology and Toxicology (n=8)	Pharmacy Practice and Administration (n=39)
Peer-reviewed scientific journal articles	44	12	31
Books, book chapters	9		9
Other scholarly work		1	4
Patents	3		
Presentations and posters at national/ international scientific meetings	27	4	35

Note: Some publications and posters are cross-divisional.

National and International Research and Literature Review in Peer-Reviewed Journals

Acharya, G., Armstrong, M., McFall, C., Quinn, R.W., Hilbert, S.L., Converse, G.L., Toth, P.B., Sherman, A.K., **Lee, C.H.**, Lofland, G.K., & Hopkins, R.A. (2014). Calcium and phosphorus concentrations in native and decellularized semilunar valve tissues. *Journal of Heart Valve Disease*, 23(3), 259-270.

Agrahari, V., Meng, J., Zhang, T., & **Youan, B.B.** (2014). Application of design of experiment and simulation methods in liquid chromatography analysis of topical HIV microbicides stampidine and HI443. *Journal of Analytical and Bioanalytical Techniques*, 5(1), pii:180.

Agrahari, V., Zhang, C., Zhang, T., Li, W., Gounev, T.K., Oyler, N.A., & **Youan, B.B.** (2014). Hyaluronidase-sensitive nanoparticle templates for triggered release of HIV/AIDS microbicide in vitro. *AAPS Journal*, 16(2), 181-193.

Barnes, K.N. (2014). Acetaminophen use and ADHD: Should we be concerned? *iForum Rx*. www.iforumrx.org/node/240

Barnes, K.N., Pearce, E.F., Yancey, A.M., & Forinash, A.B. (2014). Ospemifene in the treatment of vulvovaginal atrophy. *Annals of Pharmacotherapy*, 48(6), 752-757.

Barot, M., Gokulgandhi, M.R., Pal, D., & **Mitra, A.K.** (2014). In vitro moxifloxacin drug interaction with chemotherapeutics: Implications for retinoblastoma management. *Experimental Eye Research*, 118, 61-71.

Bartelme, K., **Bzowickyj, A.**, Frueh, J., Speedie, M., Jacobson, G., & Sorensen, T.D. (2014). Experience and outcomes of a pharmaceutical care leadership residency program. *Innovations in Pharmacy*, 5(3), 1-9.

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Blanchard, R., Reay, S., Rio, L., & **Mead, T.** (2014, December). *Evaluation of the accuracy of a medication reconciliation process for family medicine patients at an urban hospital*. Contributed poster at the Midyear Clinical Meeting of the American Society of Health-System Pharmacists, Anaheim, CA.

Brommelsiek, M., Kimble, S.J., Gotham, H., Peterson, J., **Bzowickyj, A.**, & **Sawkin, M.T.** (2014, June). *Using motivational interviewing techniques in interprofessional clinical practice for delivering healthcare to persons with multiple chronic conditions*. All Together Better Health VII, International Conference on Interprofessional Practice and Education, Pittsburgh, PA.

Bzowickyj, A.S., Schauner, S.M., Sawkin, M.T., Lindsey, C.C., Stoner, S.C., Ruehter, V.L., Graham, M.R., Kimble, S.J., Brommelsiek, M., & Gotham, H.J. (2014, July). *Student pharmacist interventions during an interprofessional IPPE in underserved, culturally diverse community health clinics*. Annual meeting of the American Association of Colleges of Pharmacy, Grapevine, TX.

Chatterjee, A., Ronghe, A., Abdalla, F., & **Bhat, H.K.** (2014, April). *Natural antioxidants exhibit chemopreventive characteristics through the regulation of CNC-bZip transcription factors in estrogen-induced breast carcinogenesis*. Annual meeting of the American Association for Cancer Research, San Diego, CA.

Chen, Z., Zhao, Z., & **Cheng, K.** (2014, October). *Identification of IGF2R specific peptides using phage display*. Poster presentation at the International Nanomedicine and Drug Delivery Symposium (NanoDDS), Chapel Hill, NC.

Cholkar, K., Gilger, B., Velagaleti, P., Weiss, S., & **Mitra, A.K.** (2014, November). *Cyclosporine-A topical drops for dry eye syndrome*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Cochran, K.A., & Funkenbusch, K. (2014, July). *Pharm to farm: A novel APPE delivering onsite farmstead medication assessment to rural Missourians*. Annual meeting of the American Association of Colleges of Pharmacy, Grapevine, TX.

Criswell, B., Gabriel, M., Yamada, K., & **Smith, A.J.** (2014, December). *Usage evaluation of the novel oral anticoagulant (NOAC) agents (methods)*. Poster presentation at the Midyear Clinical Meeting of the American Society of Health-System Pharmacists, Anaheim, CA.

Earla, R., Pal, D., Quenelle, D., & **Mitra, A.K.** (2014, November). *Enhanced oral bioavailability of acyclovir by the 12-hydroxystearic acid acyclovir and biotin-12-hydroxystearic acid acyclovir conjugates in mouse model: Analysis by LC-MS/MS*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Friedman, S.H. (2014, March). *Construction and optimization of a photoactivated insulin depot*. Invited talk at the Frontiers of Medicinal Chemistry Meeting, Tübingen, Germany.

Friedman, S.H. (2014, March). *Construction and optimization of a photoactivated insulin depot*. Invited talk at Sanofi Pharmaceuticals, Frankfurt, Germany.

Gordon, K.W., **Cochran, K.A.**, **Aistrope, D.S.**, Ge, B., & Davis, J.W. (2014, December). *Evaluation of a pharmacist-led educational intervention to improve identification and documentation of adverse drug events (ADE) in an ambulatory setting*. Midyear clinical meeting of the American Society of Health-System Pharmacists, Anaheim, CA.

Hampton, J. (2014, December). *Assessment of administration of first dose antibiotics in emergency department patients with severe sepsis or septic shock*. Midyear clinical meeting of the American Society of Health-System Pharmacists, Anaheim, CA.

Hardinger, K.L., Burton, S.A., Dalal, P.K., & Murillo, D.M. (2014, July). *Characteristics of renal allograft donors in the united network for organ sharing region 8*. American Transplant Congress, San Francisco, CA.

Harris, S.M., Clark, J.M.R., Harry, K.M., Malone, C.N, **Smith, A.J.**, Waters, M.A., & Bennett, K.K. (2014, April). *Barriers to cardiac rehabilitation participation: Predicting enrollment in an urban, safety-net hospital*. Poster presentation at the Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Philadelphia, PA.

Hill, J.D., Van Vickie, J., Rochetti, G.M., Miller, J., & **Wombwell, E.** (2014, December). *Evaluation of tigecycline utilization at a large, non-teaching hospital*. Presentation at the Midyear Clinical Meeting of the American Society of Health-System Pharmacists, Anaheim, CA.

Jain, A., Shukla, R., Barve, A., & **Cheng, K.** (2014, November) *Intracellular trafficking of the streptavidin-based siRNA nanocomplex*. Poster presentation at the annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Johnston, T.P., Korolenko, T.A., Kisarova, Y.A., Alexeenko, T.V., Dubrovina, N.I., Filjushina, E.E., Cherkanova, M.S., Zhukova, N.A., & Machova, E. (2014, November). *Effect of poloxamer 407 administration on serum lipids, anxiety level and protease activity in the heart and liver of mice*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Joseph, M., Patel, S.P., Vaishya, R., Agrahari, V., & **Mitra, A.K.** (2014, November). *Random tri-block copolymer nano-formulation for delivery of protein therapeutics*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Kerwin, L., Rio, L., Reay, S., Blanchard, R., & **Mead, T.** (2014, December). *Multidisciplinary team approach to assessing the management of depressive disorder in a patient-centered medical home*. Contributed poster at the Midyear Clinical Meeting of the American Society of Health-System Pharmacists, Anaheim, CA.

Kiersma, M.E., Chen, A.M.H., Blake, B., **Knell, M.E.**, Fusco, M., Kleppinger, E., Gillespie, M., Mody, V., & Zavod, R. (2014, July). *Enhanced student awareness and recognition of scholarly teaching*. Contributed poster at the annual meeting of the American Association of Colleges of Pharmacy, Grapevine, TX.

Kimble, S.J., Brommelsiek, M., Gotham, H., **Bzowickyj, A.**, & **Sawkin, M.T.** (2014, June). *What's my line? Blurring the interprofessional roles in clinical practice*. All Together Better Health VII, International Conference on Interprofessional Practice and Education, Pittsburgh, PA.

Kleinhesselink, K., **Nelson, L.A.**, Elliott, E., Iuppa, C., **Winans, E.**, Suppes, S., **Liu, Y.**, & **Sommi, R.W.** (2014, April). *Use of a metabolic monitoring database in two state psychiatric hospitals*. Annual meeting of the College of Psychiatric and Neurologic Pharmacists, Phoenix, AZ.

Lindsey, C.C., **Sawkin, M.**, **Stoner, S.**, **Bzowickyj, A.**, **Schauner, S.**, **Graham, M.**, **Ruehter, V.L.**, Kimble, S., Gotham, H., & Brommelsiek, M. (2014, March). *Student attitudes, readiness, and self-reflective outcomes of a community-based interprofessional education (IPE) program*. Annual meeting of the Association for Prevention Teaching and Research, Washington, DC.

Liu, Y., Reichmann, W., Wang, S., Macaulay, D., Skup, M., Chao, J., & Bao, Y. (2014, October). *Indirect comparison of adalimumab and vedolizumab in inflammatory bowel disease in the United Kingdom: Cost per responder/remitter analysis*. Poster presentation at the United European Gastroenterology Week 2014, Vienna, Austria.

Liu, Y., Ozbay, A.B., Skup, M., Reichmann, W., Diener, M., & Chao, J. (2014, October). *Comparison of cost per responder and remitter in patients with inflammatory bowel disease in the United States: An indirect comparison of adalimumab and vedolizumab*. Poster presentation at the Annual Scientific Meeting of the American College of Gastroenterology, Philadelphia, PA.

Liu, Y., Reichmann, W., Macaulay, D., Wang, S., Skup, M., & Chao, J. (2014, May). *Indirect comparison of adalimumab, infliximab, and golimumab in ulcerative colitis: Cost per remitter analysis*. Poster presentation at Digestive Disease Week 2014, Chicago, IL.

Liu, Y., Skup, M., Tundia, N., Ozbay, B., Yang, H., Lu, M., Mulani, P., & Chao, J. (2014, April). *Comparisons of health care costs across common indications for adalimumab and infliximab: A claims database analysis*. Poster presentation at the annual meeting of the Academy of Managed Care Pharmacy, Tampa, FL.

Liu, Y., Tundia, N., Skup, M., Ayyagari, R., Cheng, D., Bao, Y., & Chao, J. (2014, October). *Adherence to adalimumab therapy and health care costs for patients with psoriasis: A claims database analysis*. Poster

presentation at the 23rd European Academy of Dermatology and Venereology Congress, Amsterdam, The Netherlands.

Liu, Y., Tundia, N., Skup, M., Ozbay, B., Ayyagari, R., Cheng, D., Mulani, P., & Chao, J. (2014, April). *Association between adherence to adalimumab therapy and health care costs for patients with rheumatoid arthritis, psoriasis, Crohn's disease, and psoriatic arthritis: A claims database analysis*. Poster presentation at the annual meeting of the Academy of Managed Care Pharmacy, Tampa, FL.

Loginova, V.M., Korolenko, T.A., **Johnston, T.P.**, Tuzikov, F.V., Korolenko, Ts.P., Maiborodin, I.N., & Spiridonov, V.K. (2014, July). *Lipoprotein fractions and subfractions in a murine model of early atherosclerosis*. International Academy of Cardiology, 19th World Congress on Heart Disease Annual Scientific Sessions, Boston, MA.

Mandal, A., Khurana, V., Vadlapudi, A., Vadlapatla, R., Pal, D., & **Mitra, A.K.** (2014, November). *Functional characterization and molecular identification of vitamin C transporter(SVCT2) in human corneal epithelial (HCEC) and retinal pigment epithelial (D407) cells*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

McQueen, C., Persky, A., & Mehta, B. (2014, July). *Combatting the Dr. Oz effect: Teaching critical thinking in self-care*. Annual meeting of the American Association of Colleges of Pharmacy, Grapevine, TX.

Mead, T., Schauner, S., Ballard, D., Petry, L., & Buzard, L. (2014, December). *Evaluation of medication documentation within an electronic medical record*. American Academy of Family Physicians Society of Teachers of Family Medicine Conference on Practice Improvement, Tampa, FL.

Mitra, A.K. (2014, July). *Design and delivery of biologics as the future of ocular therapeutics*. Keynote speaker, 4th International Conference on Clinical and Experimental Ophthalmology, Baltimore, MD.

Mitra, A.K. (2014, July). *Emerging technologies in controlled long term delivery of ocular therapeutics*. Speaker and chair, Track 7, Novel Approaches to Ophthalmology Therapeutics, 4th International Conference on Clinical and Experimental Ophthalmology, Baltimore, MD.

Mitra, A.K. (2014, May). *Novel pentablock copolymer based compositions for long term delivery of protein therapeutics*. Biologics Formulation and Delivery Summit, Boston, MA.

Mitra, A.K. (2014, November). *Modernization of USP 771: Ophthalmic preparations chapter and considerations of quality criteria for ophthalmic products*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Mitra, A.K. (2014, October). *Prodrugs, intestinal uptake transporter*. Meet the Experts Transporter Conference, San Francisco, CA.

Natarajan, C., Ray, A., Pal, D., & **Mitra, A.K.** (2014, November). *Characterization of p-gp and MRP in small cell lung cancer cell line: CRL2066*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Nelson, L.A. (2014, April). *Exploring the hidden dimensions of partial response in major depressive disorder*. Activity chair/presenter at the annual meeting of the College of Psychiatric and Neurologic Pharmacists, Phoenix, AZ.

Oh, B. & **Lee, C.H.** (2014, November). *Bio-inspired hydrogel for encapsulation of adipose-derived mesenchymal stem cells (AD-MSCs)*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Oh, B. & **Lee, C.H.** (2014, May). *Nanofiber-hydrogel composite for a combined delivery of NO and ROS scavenger against CAD*. World Congress of Cardiology Scientific Sessions, Melbourne, Australia.

Patel, M., Mandava, N.K., & **Mitra, A.K.** (2014, March). *Amino acid prodrugs: An Approach to improve brain permeation of HIV protease inhibitor, lopinavir*. Invited poster presentation at the annual meeting of the Blood-Brain Barrier Consortium, Sunriver, OR.

Payakachat, N., Ragland, D., & **Gubbins, P.O.** (2014, July). *Family commitment and work challenge among pharmacists*. Poster presented at the annual meeting of the American Association of Colleges of Pharmacy, Grapevine, TX.

Ponnaluri, V.K., Vavilala, D.T., O'Bryhim, B.E., White, R.S., Radcliff, J., Symons, R.C.A., & **Mukherji, M.** (2014, January). *Honokiol inhibits pathological retinal neovascularization in oxygen-induced retinopathy mouse model*. Keystone Symposia Conference on Sensing and Signaling of Hypoxia: Interfaces with Biology and Medicine, Breckenridge, CO.

Ray, A., Vaishya, R., Natarajan, C., & **Mitra, A.K.** (2014, November). *Modification of adenoviral nuclear localization signal for efficient delivery in cancer*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Reece, S., **Stahnke, A.**, Phipps, N., & Thompson, S. (2014, August). *Evaluation of the scope of diabetes care provided by pharmacy community of interest members*. Poster presented at the annual meeting of the American Association of Diabetes Educators, Orlando, FL.

Ronghe, A., Chatterjee, A., Abdalla, F., & **Bhat, H.K.** (2014, April). *Tamoxifen synergizes cytotoxic activity of 4-(E)-{(4-hydroxyphenylimino)-methylbenzene, 1,2-diol} (HPIMBD), a novel resveratrol analogue against breast cancer cells*. Annual meeting of the American Association for Cancer Research, San Diego, CA.

Sawkin, M.A. (2014, May). *Evaluation of patient satisfaction of a pharmacist-provided HIV medication adherence clinic at an urban free health clinic*. Presentation at the American Conference for the Treatment of HIV (ACTHIV), Denver, CO.

Shackles, K., **Stoner, S.C.**, Hartwig, D.M., May, J.R., Nicolaus, S., Schramm, A.M., & **DiDonato, K.L.** (2014, March). *Physicians' preferences for communication regarding pharmacist-provided medication therapy management in the community pharmacy setting*. Poster presentation at the annual meeting of the American Pharmacists Association, Orlando, FL.

Shah, S., Patel, S., Patel, A., & **Mitra, A.K.** (2014, November). *Novel folate targeted etoposide loaded aqueous micelles for enhanced permeability in retinoblastoma cells (Y-79)*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Stoner, S.C. (2014, April). *Long-acting injectable antipsychotics*. Invited presentation at the annual meeting of the College of Psychiatric and Neurologic Pharmacists, Phoenix, AZ.

Stoner, S.C. (2014, July). *Maintaining faculty and student wellness in a stressful academic environment*. Program chair and moderator at the Annual Meeting of the American Association of Colleges of Pharmacy, Grapevine, TX.

Stoner, S.C. (2014, July). *The critical interplay between basic and clinical sciences integration*. Program chair and moderator at the Annual Meeting of the American Association of Colleges of Pharmacy, Grapevine, TX.

Took, R.L., **Liu, Y.**, & **Kuehl, P.G.** (2014, March). *Identification of medication discrepancies by community pharmacists during a comprehensive medication review in patients 1 week post hospitalization*. Poster presentation at the annual meeting of the American Pharmacists Association, Orlando, FL.

Took, R.L., **Liu, Y.**, & **Kuehl, P.G.** (2014, May). *Identification of medication discrepancies by community pharmacists during a comprehensive medication review in patients 1 week post hospitalization*. Podium presentation at the 40th Annual Midwest Pharmacy Residents Conference, Omaha, NE.

Vaishya, R., Patel, S., & **Mitra, A.K.** (2014, November). *Octreotide-encapsulated microparticle-in-gel formulation for sustained delivery*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Wang, J., & Dai, Y. (2014, November). *Cerebral expression of IFN- γ reduces weight gain with low plasma leptin in mice*. Annual meeting of the Society for Neuroscience, Washington, DC.

Wang, W., & **Lee, C.H.** (2014, November). *The effect of reactive oxygen species scavengers on mast cell stabilization*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Winans, E.A., Worth, J., & **Liu, Y.** (2014, April). *Development and implementation of a psychiatric emergency department medication refill clinic*. Annual meeting of the College of Psychiatric and Neurologic Pharmacists, Phoenix, AZ.

Yang, X., & **Mitra, A.K.** (2014, November). *Statistical design for formulation optimization of hydrocortisone butyrate-loaded PLGA nanoparticles*. Annual meeting of the American Association of Pharmaceutical Scientists, San Diego, CA.

Patents

- Thomas Johnston
United States Patent and Trademark Office US Patent Issued: #US 8,501,230
Inventors: Thomas P. Johnston, Pravakar, Mondal, Hemant Alur, James Harwick
Filed: December 2, 2008
Patent Issue Date: August 6, 2013 Assignee: TriLogic Pharma, LLC
Patent Title: Self Solidifying Bioerodible Barrier Implant
- Ashim Mitra
United States Patent and Trademark Office US Patent Issued: #US 8,551,531 B2
Inventors: Ashim K. Mitra, Gyan Prakash Mishra Filed: April 12, 2010

Patent Issue Date: October 8, 2013 Assignee: The Curators of the University of Missouri
Patent Title: Pentablock Polymers

- United States Patent and Trademark Office
US Patent Issued: #US 2009/0092665 A1
Authors: Ashim K. Mitra, Poonam R. Velagaleti, Subramanian Natesan
Filed: October 8, 2008
Patent Issue Date: May 7, 2013 Assignee: Lux Biosciences, Inc.
Patent Title: Ophthalmic Compositions Comprising Calcineurin Inhibitors or Mtor Inhibitors

Faculty on NIH and Other Review Panels in 2013-2014

- Anil Kumar – Member 2013/05 ZOD1 CG-1 (01), R13 Review panel March 2013; 5 grants
- Anil Kumar – Member 2013/ZMD1 RN 05R, R25, Review panel, NIMHD, April 2013; 5 grants
- Anil Kumar – Member 2013/05 ZRG1 AARR-K (04) M, Member Conflict, AIDS and AIDS Related Research, April 2013; 3 grants
- Anil Kumar – Member 2013/10 ZMD1 RN (06) 1, National Institute on Minority Health and Health Disparities Special Emphasis Panel, June 2013; 6 grants
- Anil Kumar – Member 2013/10 ZOD1-STOD-5-01, October 2013; 6 grants
- Anil Kumar – Member 2014/01 ZRG1-AARR-D-50, November 2013; 4 grants
- Anil Kumar – Member 2014/01 ZAI1-KP-A-J1, November 2013; 5 grants
- Anil Kumar – Polish Academy of Sciences; 12 grants
- Rafia Rasu – NIH grant reviewer for SBIR Health Care Delivery and Methodology Section
- Jack Fincham – Federal national grant review panels, Permanent Study Section Member, Agency for Healthcare Research and Quality (AHRQ)
- Jack Fincham – Health Services Research & Value Panel
- Jack Fincham – The United States Food and Drug Administration Non Prescription Drug Advisory Committee (NDAC); Reappointed member of this committee since 1998
- Ashim Mitra – Small Business: Sensory Technologies Panel; NIH Teleconference; Washington DC panel; Silver Springs MD panel; San Francisco panel

Awards for Research Presentations at National/International Scientific Meetings in 2013 and 2014

- Rafia Rasu – 2013 Trail Blazer Award from Frontiers. The Heartland Institute for Clinical and Translational Research. Supported by an Institutional Clinical and Translational Science Award, HH/NCATS
- Beth Winans and Yifei Liu – Innovative Practice Award for their poster titled, “Development and implementation of a psychiatric emergency department medication refill clinic at the 2014 Annual Meeting of the College of Psychiatric and Neurologic Pharmacists, Phoenix, AZ.

Editorial Boards for 2013-2014

- Hari Bhat – *Advances in Medicine; Journal of Pharmacology and Clinical Toxicology*; Advisory Board Member, *OA Medical Hypothesis*
- Andrew Bzowycykj – *Journal of Health-System Pharmacy Residents (JHPR)*
- Jack Fincham – Associate Editor, *American Journal of Pharmaceutical Education*; *Annals of Pharmacotherapy*, Editorial Board Member; Regional Editor for North America, *The International Journal of Pharmacy Practice*; Editorial Board member, *American Health and Drug Benefits*
- Linda Garavalia – *Faculty Development Journal*
- Karen Hardinger – *Conference Papers in Medicine; Dataset Papers in Medicine; Conference Papers in Immunology; World Journal of Transplantation*

- Orisa Igwe – *SOJ Anesthesiology and Pain Management; SOJ Pharmacy and Pharmaceutical Sciences; UK Journal of Pharmaceutical and Biosciences*
- Thomas Johnston – *Journal of Pharmacy and Pharmacology; Journal of Ocular Biology, Diseases, and Informatics*
- Anil Kumar – Academic Editor, *PLOSone*; Member, *Journal of NeuroImmune Pharmacology*; Member, *Journal of NeuroVirology*
- Chi Lee – *Advances in Biomaterials* (Hindawi Publishing Corp)
- Russell Melchert – *Cardiovascular Toxicology; Toxicology in Vitro; Regenerative Medicine Research*
- Ashim Mitra – *OA Drug Design & Delivery; Journal of Biotechnology & Biomaterials; Current Eye Research; European Journal of Drug Metabolism and Pharmacokinetics; Experimental Eye Research/Elsevier Editorial System; Pharmaceutical Research* Editorial Advisory Board
- Jianping Wang – *Neuroscience Journal; World Journal of Psychiatry*

Faculty as Elected Officers in Local, Regional, and National Pharmacy or Health-Related Professional Organizations 2013–2014

- Andrew Bzowickyj – Secretary-Treasurer, Kappa Psi Pharmaceutical Fraternity, Kansas City Graduate Chapter; New Practitioner Officer, American Pharmacists Association, Academy of Pharmacy Practice and Management (APhA-AAPM)
- Bill Gutheil – Councilor for the Kansas City Section of the American Chemical Society; Member of the American Chemical Society National Committee on Patents, Trademarks, and Related Matters
- Anil Kumar – President Elect, Society of NeuroImmune Pharmacology
- Diane McClaskey -- President Missouri Society of Health Systems Pharmacists
- Ashim Mitra – Selection Committee for American Association for Advancement of Science; Chairman, USP Council of Experts, General Chapter <771> Ophthalmic Preparations Expert Panel; Member, ARVO Awards and Grants Committee (PH Section)
- Rafia Rasu – Officer of National Organizational Affairs Committee of AMCP
- Andrew Smith – Immediate Past President, Missouri Society of Health-System Pharmacists; Region IV Councilor, Rho Chi Pharmacy Honor Society; Past-President, Greater Kansas City Society of Health-System Pharmacists
- Steven Stoner – AACP Council of Sections Secretary; AACP Pharmacy Practice Section in the COS, Chair; AACP COS Chair of Strategic Planning Task Force, appointed; CPNP Chair of Business Development, appointed

Current Graduate Students and Mentors

Division of Pharmaceutical Sciences

Agrahari, Vibhuti

Agrahari, Vivek

Ayon, Navid Jbasier

Barve, Ashutosh

Bhar, Subhradeep

Chen, Zhijin

Cholkar, Kishore

Coulibaly, Fohona

Giri, Namita

Hao, Yi

Jain, Akshay

Jaiswal, Mohit

Mitra, Ashim

Youan, Celestin

Gutheil, William

Cheng, Kun

Mukherji, Mridul

Cheng, Kun

Mitra, Ashim

Youan, Celestin

Lee, Chi

Mitra, Ashim

Cheng, Kun

Mukherji, Mridul

Jin, Wei
 Joseph, Mary
 Le, Hoa Thi Thu
 Li, Yuanke
 Liu, Hao
 Mandal, Abhirup
 Meng, Jianing
 Nadendla, Venkata Srikrishna Karthik
 Natarajan, Chandramouli
 N Go, Albert
 Oh, Byeongtaek
 Owiti, Alex Oselu
 Prakash, Swami
 Ray, Animikh
 Sarode, Bhagyesh Ramesh
 Shah, Sujay
 Sheng, Ye
 Subhani, Saima
 Trinh, Hoang (Holly)
 Vaishya, Ravi
 Vemula, Harika
 Wang, Wuchen
 Yang, Xiaoyan
 Zhao, Zhen

Cheng, Kun
 Mitra, Ashim
 Mitra, Ashim
 Cheng, Kun
 Cheng, Kun
 Mitra, Ashim
 Youan, Celestin
 Friedman, Simon
 Mitra, Ashim
 Youan, Celestin
 Lee, Chi
 Youan, Celestin
 Mukherji, Mridul
 Mitra, Ashim
 Friedman, Simon
 Mitra, Ashim
 Mitra, Ashim
 Mukherji, Mridul
 Mitra, Ashim
 Mitra, Ashim
 Gutheil, Bill
 Lee, Chi
 Mitra, Ashim
 Cheng, Kun

Division of Pharmacology and Toxicology

Abdalla, Fatma
 Aljouda, Nour
 Alsousi, Asmaa A.
 Ande, Anusha
 Cao, Lu
 Chaudhari, Nitish Subhash
 Gangwani, Mohitkumar
 Jackson, Shante
 Kodakandla, Goutham
 Nookala, Anantha Ram
 Reis, Julia
 Ronghe, Amruta Mukund
 Stancil, Stephani
 Vaz, Nikita Ciandra
 Zhang, Yan

Bhat, Hari
 Kumar, Anil
 Igwe, Orisa
 Kumar, Santosh
 Kumar, Anil
 Kumar, Anil
 Kumar, Anil
 Kumar, Anil
 Kumar, Anil
 Kumar, Anil
 Badr, Mostafa
 Bhat, Hari
 Kumar, Anil
 Kumar, Anil
 Igwe, Orisa

Division of Pharmaceutical Science Faculty Mentors for Doctoral Students who have graduated (Fall 2009–Fall 2014)

- Kun Cheng
 - Bin Qin (graduated 2012)
 - Ravi Shankar Shukla (graduated 2014)
 - Wanyi Tai (graduated 2012)

- Simon Friedman
 - Rajoshi Chaudhuri (graduated 2011)
 - Nitin Jain (graduated 2013)
 - Piyush Jain (graduated 2013)
 - Ashish Kala (graduated 2015)
 - Dipu Karunakaran (graduated 2014)
- William Gutheil
 - Sudheer Bobba (graduated 2013)
 - Sandeep Putty (graduated 2014)
- Chi Lee
 - Gayathri Acharya (graduated 2013)
- Ashim Mitra
 - Megha Barot (graduated 2013)
 - Sagar Boddu (graduated 2010)
 - Ripal Gaudana (graduated 2011)
 - Mitan Gokulgandhi (graduated 2013)
 - Sriram Gunda (graduated 2012)
 - Sudarshan Hariharan (graduated 2009)
 - Varun Khurana (graduated 2014)
 - Deep Kwatra (graduated 2011)
 - Shuanghui Luo (graduated 2010)
 - Nanda Mandava (graduated 2013)
 - Mukkul Minocha (graduated 2012)
 - Gyan Prakash Mishra (graduated 2011)
 - Ashaben Patel (graduated 2014)
 - Mitesh R. Patel (graduated 2014)
 - Sulabh Patel (graduated 2014)
 - Durga Paturi (graduated 2013)
 - Viral K. Tamboli (graduated 2012)
 - Ramya K. Vadlapatla (graduated 2014)
 - Aswani D. Vadlapudi (graduated 2013)
 - Zhiying Wang (graduated 2013)
- Mridul Mukherji
 - Chaithanya Ponnaluri (graduated 2014)
 - Divya Teja Vavilala (graduated 2014)
- Celestin Youan
 - Di Mei (graduated from M.S. program in 2009)
 - Tao Zhang (graduated 2013)

Division of Pharmacology and Toxicology Faculty Mentors for Doctoral Students who have graduated (Fall 2009–Fall 2014)

- Orisa Igwe
 - Chengling Mo (graduated 2013)
- Anil Kumar
 - Ankit Shah (graduated 2013)
- Santosh Kumar
 - Jin Mengyao (graduated 2012)

- Jianping Wang
 - Nikhil Parelkar (graduated 2010)
 - Hua Zhang (graduated 2010)

Goal III.C. Maintain state-of-the-art human resources, technology and instrumentation

Objective III.C.1. Eliminate redundancies in equipment purchase and promote shared usage and responsibility for technology and instrumentation within the school and across campus

Objective III.C.2. Develop and implement a plan for sustainability of current research equipment and establish purchase policies for equipment that include plans for sustainability

Measures of Success:

- Number of full-time faculty
- Number licensed and with board certifications (percentage eligible)

Number of Full-Time Faculty

At the start of the 2014 fall semester, the School of Pharmacy had 56 (DPPA 41, DPT 7, DPS 8) full-time faculty. Twenty-seven are clinical, non-tenure track appointees. Twenty-nine are tenure track appointees. Please see the table on page 29 for demographic details. Eight faculty were located in Columbia and three were located in Springfield. The remainder were located in Kansas City.

Faculty Certifications and Licensures

- Division of Pharmacy Practice and Administration
 - 28 out of 43 faculty (65.1%) had board certifications
 - 39 out of the 43 faculty (90.7%) had active pharmacist licenses in one or more states
- Division of Pharmacology and Toxicology
 - two faculty members are registered pharmacists: Orisa Igwe (Louisiana inactive; Minnesota inactive; Ohio inactive) and Russell Melchert (Arkansas active; Oklahoma active)
- Division of Pharmaceutical Sciences
 - one faculty member is a registered pharmacist: Thomas Johnston (Kansas active; Minnesota inactive)
 - Ashim Mitra holds a State License for Bureau of Narcotics and Dangerous Drugs, Missouri Department of Health; Federal License for Controlled Substances/US Drug Enforcement Administration

Strategic Initiative IV. Community Engagement:

Engage external constituencies to promote and support the school and profession

Goal IV.A. Promote accomplishments of the faculty, staff, and students through appropriate outlets and constituencies in a timely manner

Objective IV.A.1. Develop and implement a multi-media marketing plan for the School of Pharmacy for local, regional, and national promotion of the work of the school

Measures of Success:

- Number of distinct times external stakeholders received communication from school or notifications of events
- Distinct print or electronic pieces developed (number and listing)
- Dissemination of school information through school and university web sites, the *Postscript*, foundation newsletter, and other promotional materials
- Recognition of faculty and student honors and accomplishments at division and school faculty meetings and other relevant venues

Development and Dissemination of Communications

The school employs a full-time staff member in the position of coordinator of communication and promotions, who serves as the resource and contact for news and information for the campus public relations department and the school as a whole. The coordinator is responsible for the dissemination of school news to campus public relations, social media, web site and appropriate news outlets and/or organizations. He also maintains and updates the School of Pharmacy's web page and Facebook site.

The school's web site has a page dedicated to news releases related to students, faculty, staff, alumni, awards, and upcoming events (<http://pharmacy.umkc.edu/news/>). The page includes a link for online submission of news items. School of Pharmacy news releases also appear on the web page of the UMKC office of public relations (<http://www.umkc.edu/news/>) and "UMatters," the web page for UMKC faculty and staff news (<http://info.umkc.edu/umatters/>).

The UMKC Advancement division produces a monthly e-blast newsletter known as *eRoos* with all known alumni related information from across the campus. This newsletter is sent to all UMKC alumni with a known e-mail account. The UMKC Alumni Association includes news about alumni on their web page (<http://www.umkcalumni.com>) under "Roos in the News," and "Class Notes," and in their printed magazine *Perspectives* and *eRoos*, the online alumni newsletter.

Development and dissemination of communication pieces or notification of events:

- The School of Pharmacy's director of advancement creates the *Postscript*, an annual award-winning alumni magazine mailed each year to approximately 2,800 school alumni and over 200 other friends. The magazine includes feature articles on students, faculty and alumni. The *Postscript* received the District VI Gold Institutional Award for Excellence in Communications at the 2012 conference of the Council for Advancement and Support of Education (CASE), the professional organization that helps direct and support alumni, fundraising and communications pieces for colleges and universities nation-wide. The *Postscript* also received the CASE bronze award in 2008, gold award in 2009, and silver award in 2011.

- Invitations or communications were sent via e-mail for the following pharmacy events and programs:
 - All university alumni are invited to the UMKC Alumni Awards luncheon. The invitation is produced and mailed by main campus each year.
 - The Pharmacy Foundation golf tournament player brochure is e-mailed to over 1,300 people – alumni, past players, constituent group members, School of Pharmacy faculty and staff.
 - Springfield alumni receptions were held during the summers of 2011 and 2012. Over 180 invitations were e-mailed to Springfield area alumni.
 - A Kansas City alumni wine tasting event is held each year. Invitations are e-mailed to over 1,500 alumni each year.
 - The pharmacy alumni reunion weekend brochure is e-mailed to board members and friends of the School of Pharmacy each fall.
 - The Tiger-Roo Tailgate tradition began in the fall of 2011. Each fall, approximately 900 e-mail invitations are sent to area alumni to attend a tailgate party prior to a Mizzou home football game, typically in November.
- The *UMKC Perspectives* magazine is available online and is mailed to over 3,000 pharmacy alumni each year.
- Alumni Association, Pharmacy Foundation and Dean's Advisory Council members also receive regular communications for relevant specific events such as student appreciation days, wellness fairs, the Health Sciences Student Research Summit, commencement, career fair, and the Pharmacy Foundation holiday party.

Recognition of Faculty and Staff Honors and Accomplishments

- At the monthly School of Pharmacy faculty meetings, the dean announces the names of faculty and students who have received awards, grant funding, and promotions. Written reports from the student organizations and the Alumni Association/Pharmacy Foundation are collected and distributed to the faculty via e-mail prior to the meetings. The Division of Pharmacy Practice and Administration includes announcements of faculty accomplishments and student achievements at their division meetings. The dean also sends e-mail announcements of faculty, staff and students awards and accomplishments to the entire School of Pharmacy, and when appropriate, the director of advancement forwards them to members of the Pharmacy Foundation and Pharmacy Alumni Association.
- The school's web site has a "Faculty Research Interests" page, which includes a list of each faculty member's research interests and a link to his or her personal web page. The page has a keyword search feature, which aids viewers in locating experts on different topics.
- Each spring, the school announces the recipients of the Teacher of the Year awards. For these awards, students in each professional class, years one through four, are given the opportunity to select one of the teachers who taught their class in a required course during the academic year. They are asked to judge each teacher based on his/her teaching ability and approach inside and outside the classroom, and his/her impact on the students' future careers. The anonymous balloting is conducted via Blackboard surveys. A first-place winner and runner-up are announced for each class, and they are invited to be honored by faculty, staff, students and alumni at the school's Achievers of Excellence celebration the following fall. Their names are printed in the awards program, their names are announced by the dean, and they each receive an award certificate. The Rho Chi honor society also recognizes a teacher of the year.
- In the School of Pharmacy, all faculty and staff are asked to nominate staff members for the campus staff awards, and the top two in each category voted on by faculty and staff. This final vote bestows the award to the individual on behalf of the School of Pharmacy; this individual is then forwarded to

the campus committee as the school's nominee for the campus award. The award winners are awarded a plaque and their names are added to a school plaque in the second-floor hallway of the Health Sciences Building.

Recognition of Student Honors and Accomplishments

- School of Pharmacy scholarship winners are recognized at the Achievers of Excellence awards program each fall. The reception for students and their families, scholarship donors, faculty, staff and alumni is sponsored by the Pharmacy Foundation. Each student has his or her photograph taken with the scholarship donor, if possible, and copies are sent to the donors. A brief biography submitted by each scholarship recipient is printed in the awards program. Over 250 people typically attend the event.
- Each spring, award recipients in the doctor of pharmacy graduating class are recognized during the commencement ceremony and during the graduation banquets. Awards are given for superior academic achievement, leadership, and service. Sponsors of the awards are invited to attend the ceremony and be recognized.
- At the end of each semester, the names of full-time doctor of pharmacy students whose term grade point average is 3.5 or higher are placed on the dean's list. To be eligible for the dean's list, baccalaureate pharmacy students must rank in the upper 10 percent of their class for the term specified. When possible, the UMKC public relations office sends news releases to the students' hometown newspapers.
- The UMKC Women's Council presents their annual Graduate Assistance Awards at a luncheon in the spring. Ph.D. and doctor of pharmacy students are among the women recognized for their research projects. In 2011, one Pharm.D. and five Ph.D. students received awards. Ten Ph.D. students received awards in 2012. Eleven Ph.D. and one Pharm.D. student received awards in 2013.
- At the UMKC Bloch School's annual Regnier Family Foundations/Bank of Blue Valley Venture Creation Challenge, three doctor of pharmacy students received an Award with Distinction for their project, PharXm Natural Supplements.
- The students in APhA-ASP produce a monthly newsletter, *The Script*, featuring student profiles, student organization updates, articles by students, and a column by the dean. The newsletter is distributed via e-mail to School of Pharmacy students, faculty and staff, and posted on the "Current Students" page of the school's web site.
- The three academic divisions each have glass display cases in their hallways, where they post information on faculty and student activities and accomplishments.



School of Pharmacy Student Government/APhA-ASP Awards List

- National Awards
 - APhA-ASP Class AA 2nd Runner-Up National Chapter Achievement Award for 2012-13, awarded March 2014
 - APhA-ASP Top 5 "Back the PAC" professional advocacy campaign, 2013, awarded March 2014
 - APhA-ASP Top 10 PharmFlix video competition, 2013, awarded March 2014
 - APhA-ASP Class AA National Chapter Achievement Award Winner for 2011-12, awarded March 2013
 - APhA-ASP National Chapter of the Year for 2010-2011, awarded March 2012

- APhA-ASP Class A National Chapter Achievement Award Winner for 2009-10, awarded March 2011
- APhA-ASP Top 10 PharmFlix video competition, 2011
- Regional Awards
 - APhA-ASP Region 6 Winner, Operation Self-Care, November 2014
 - APhA-ASP Region 6 Winner, Operation Heart, November 2014
 - APhA-ASP Region 6 Winner, Operation Immunization, November 2014
 - APhA-ASP Region 6 Winner, Operation Self-Care, October 2013
 - APhA-ASP Region 6 Winner, Operation Immunization, October 2013
 - APhA-ASP Region 6 Winner, Generation Rx, March 2013
 - APhA-ASP Region 6 Winner, Operation Heart, November 2012
 - APhA-ASP Region 6 Winner, Heartburn Awareness Challenge, March 2010
- Local Awards
 - National Alliance of State Pharmacy Associations – Nonprescription Medicines Academy Self-Care Championship – first place in Quiz Bowl
 - UMKC Council of the Year for its dedicated service to the pharmacy student body, 2013-2014.
 - UMKC Student Government Association Most Outstanding Student Organization of the Year, awarded to APhA-ASP, April 23, 2013
 - UMKC Student Government Association Most Active Organization in Community Service, awarded to APhA-ASP, April 2012
 - UMKC Student Government Association Student Organization of the Year, awarded to APhA-ASP, April 2012
 - UMKC Student Government Association Council of the Year, awarded to APhA-ASP, April 2011
 - UMKC Student Government Association Student Organization of the Year, awarded to APhA-ASP, April 2010

Examples of 2014 Student Awards and Honors

- At the 2013 UMKC Health Sciences Student Research Summit, pharmacy students received best poster awards in the following categories:
 - Pharmaceutical Sciences/Pharmacology and Toxicology: Piyush Jain, Mitan Gokulgandhi, Zhiying Wang
 - Pharmacy Practice and Administration: Melissa Colley, Andrew Schramm
- Melissa Luechtefeld received the 2014 Paul Pumpian APhA Foundation Scholarship
- Stephen Andrews, APhA-ASP Chapter Finance Vice President received “Most Outstanding UMKC Student Council Leader of the Year”, 2013-2014
- Patricia Hoover, APhA-ASP Kansas City Chapter President received “UMKC Award for Excellence in Student Leadership”, 2013-2014
- Tracy Harlan was a national awardee at the One to One Patient Counseling Recognition Program at APhA, March 2014.
- Sheena Merwine was a national awardee at the One to One Patient Counseling Recognition Program at APhA, March 2013. UMKC has had a winner every year since 2008. Previous winners include Danielle Nagel (2012), Rachel Hughes (2011), Cassandra Shields (2010), David Preston (2009) and Daniel Hanson (2008).
- 2013 Rho Chi Regional (Region 6) Chapter of the Year.
- Kappa Psi – UMKC SGA Award for Most Active Organization in Community Service .
- Karen Goolsby was re-elected as a member of the AMCP National Membership Committee for the 2013-2014 year.
- Kappa Epsilon, National Alumni Involvement Honorable Mention, 2012-2013, Awarded 2013.



- Ekeni Livingston received a national Kappa Epsilon award, the Linda Rogers Memorial Award.
- Naaseha Amir, APhA-ASP chapter president, was recognized as the Most Outstanding Student Organization Leader by the UMKC Student Government Association.
- Lucas Hill received a travel award from ACCP to attend the 2012 annual meeting.
- Naaseha Amir and Alexander "Brooks" Crisswell progressed to the Top 10 in the national ASHP Clinical Skills Competition.
- Dustin Webber participated in a competitive summer internship at Express Scripts during the summer
- Namita Giri, Chi Lee's graduate student, received a first place Poster Award during the 45th Annual Pharmaceutics Graduate Student Research Meeting (PGSRM) at the University of Iowa.

Examples of Student Engagement in Organizations for 2014

- Current Pharm.D. Student Organizations
 - Academy of Managed Care Pharmacy – 23 members
 - American Pharmacists Association Academy of Student Pharmacists – 282 members
 - Kappa Epsilon – 60 members
 - Kappa Psi – 84 members
 - National Community Pharmacists Association – 70 members
 - Public Health Organization – 39 members
 - Phi Lambda Sigma – 43 members
 - Rho Chi – 79 members
 - Student Society of Health-System Pharmacists – 105 members
 - Student College of Clinical Pharmacy – 43 members
- Current Ph.D. Student Organizations
 - American Association of Pharmaceutical Scientists – 48 members
 - Pharmaceutical Sciences Graduate Student Association – 48 members
- Examples of Community Service
 - Public awareness campaign on proper antibiotic usage
 - DEA National Drug Take-Back Day
 - Poison prevention
 - Medicare Part D signup sessions
 - Prepare hygiene kits for a women's shelter
 - Fall blood drives
 - Harvesters
 - Race for the Cure
 - Hazardous waste household pick-up
 - Support our Troops
 - Midwest Transplant Network
- Examples of Patient Care
 - Operation Immunization, Diabetes, Heart and Self Care
 - ROOT 4 Health
 - Healthy for Life: the University of Missouri's faculty and staff wellness program
 - Missouri State Fair health screenings
 - Sojourner Clinic
 - International medical mission trips to Cuzco, Peru, La Ramona, Dominican Republic and Quito, Ecuador
 - Bone density screenings at assisted living facilities
 - Falls prevention

- Philanthropy
 - CRUSH Hunger Event
 - 25th Annual AIDS Walk
 - Walk MS 2013
 - RxFactor
 - Susan G. Komen Race for the Cure
 - Harvesters
 - Ronald McDonald House
 - Bowling for Breast Cancer
 - Marine Toys for Tots
 - Vial of Life
 - Adopt-a-Family
 - Volley for Charity
 - Back the Pac
- Leadership, Clinical and Professional Skills Development
 - Clinical pearls discussions
 - Professional development seminars
 - Research skills seminars
 - Clinical skills competition
 - Attendance at national meetings
 - Residency roundtable
 - Strategies for effective networking
 - National Patient Counseling Competition
 - Advocacy and legislative days
 - Compounding competition
 - Financial planning
 - Mock interview day
 - Pharmacy and Therapeutics Competition
 - Rho Chi Clinical Pearls
 - General Medicine I Roundtable
 - Student Practice Research Networks
 - Clinical case presentations
 - CPR/First Aid Training
- Examples of Social Events
 - Baseball games, movie nights, game and trivia nights, casino night, formals, roller skating, holiday parties, laser tag, welcome picnics and dinners

Goal IV.B. Sustain strong collaboration with community organizations and health care providers to impact the well-being of patients

Measures of Success:

- IPPE and APPE placements across the community and state
- Preceptor volunteer hours
- Awards and other evidence of outstanding community engagement
- Faculty placements and service in practice sites across the community and state

Doctor of Pharmacy Experiential Learning Placements

The following Introductory Pharmacy Practice Experiences (IPPE) are experiential courses within the doctor of pharmacy curriculum which require placement at an external practice site:

- 7378P: Introduction to Community Pharmacy (first offered in 2009)
 - Provides 80 contact hours during the summer between the P2 and P3 years
- 7379P: Introduction to Health Systems Pharmacy (first offered in 2010)
 - Provides 80 contact hours during the summer between the P2 and P3 years
- 7406P: Health Assessment & General Medicine I
 - Provides 160 contact hours during the student's P3 longitudinal year

These experiences emphasize application of knowledge gained in didactic coursework at the student's level in the curriculum. The goal of IPPE is to establish a solid practice foundation on which students will continually build as they progress through the doctor of pharmacy curriculum. Successful completion of IPPE courses provides 8 hours of academic credit and 320 internship hours for the Missouri Board of Pharmacy. The following table provides a summary of the number of sites and preceptors hosting students for required IPPE rotations annually.

Introductory Pharmacy Practice Experiences (IPPE)				
Year	Number of Students	Total # of Rotations	Total # of Preceptors	Unique Training Sites
2013	128	383	119	90
2012	128	384	117	94
2011	125	375	137	114
2010	110	330	138	118
2009	113	226	64	57

Doctor of Pharmacy Advanced Pharmacy Practice Experiences (APPE) is a series of rotations designed to complete the student's education through supervised participation in pharmacy practice in a variety of community and institutional settings. Candidates are required to complete eight pharmacy practice experiences and are expected to learn by assuming the pharmaceutical care responsibilities of a pharmacist under the direct supervision of a preceptor. The purpose of APPEs is to apply the facts, information, and concepts gained in didactic coursework to "real-life" situations. APPEs use an integrative approach to learning that includes experience and interactions between students and preceptors in various health care settings to turn didactic knowledge into practical knowledge. Successful completion of APPE courses provides 36 hours of academic credit and 1440 internship hours for the Missouri Board of Pharmacy.

APPE Courses Include:

- Pharmacy 7407P: General Medicine II
- Pharmacy 7409P: Health Systems
- Pharmacy 7410P: General Medicine III
- Pharmacy 7412P: Advanced Community Pharmacy Practice
- Pharmacy 7418P: Elective I
- Pharmacy 7419P: General Medicine IV
- Pharmacy 7420P: Elective II
- Pharmacy 7421P: Elective III

The following table provides a summary of the number of sites and preceptors hosting students for required APPE rotations annually.

Advanced Pharmacy Practice Experiences (APPE)				
Year	Number of Students	Total # of Rotations	Total # of Preceptors	Unique Training Sites
2013-14	125	1,000	328	201
2012-13	125	1,000	307	175
2011-12	107	856	288	175
2010-11	112	896	253	159
2009-10	112	896	206	159

Volunteer Hours Provided by Preceptors

July 1, 2008–June 30, 2009:	66,881.5
July 1, 2009–June 30, 2010:	108,480
July 1, 2010–June 30, 2011:	118,080
July 1, 2011–June 30, 2012:	100,400
July 1, 2012–June 30, 2013:	58,200 (7,840 IPPE; 50,720 APPE)

Academic Service Learning

- Academic Service Learning is a professional elective course in which students are assigned to either the Jackson County Free Health Clinic/Shared Care in Independence, Missouri or the MedZou community health clinic in Columbia, Missouri. The primary focus is on health education. Students participate in direct patient care activities and are supervised by licensed pharmacists. In 2011, 14 students participated in the Jackson County Free Health Clinic, and 10 students participated in the MedZou clinic. In 2012, nine students participated at the MedZou Clinic. In 2013, five students participated in the MedZou clinic in fall semester.
- The Jackson County Free Health Clinic received in-kind medications donations from pharmaceutical companies that resulted in \$1,528,896 direct savings to patients.

Community Engagement Awards

- The school received the inaugural 2008-2009 AACP Student Engaged Community Service Award for the patient assistance program at the Jackson County Free Health Clinic, and was a finalist for the inaugural Transformative Community Service Award.
- The school received 2009-2010 Transformative Community Service Award for its “engagement within cities and regions to improve public health.”
- The school received the 2010-2011 Student Community Engaged Service Award for the UMKC Health Sciences Wellness Fair.
- The School of Pharmacy received the 2012 APhA Immunization Champion Award in the category of “Partnerships with Other Healthcare Providers and Public Health.”
- At the 2012 annual meeting of the American Pharmacists Association, the UMKC chapter of APhA-ASP received the Chapter of the Year Award, out of 127 schools and colleges of pharmacy. Other recognitions included:
- Kappa Psi was awarded the “Most Active Community Service” performed by an SGA organization at the SGA Awards Banquet.

Residencies

- The school offers the following practice-based residencies:
 - three PGY-1 community pharmacy residencies, in affiliation with Balls Food Stores, Red Cross Pharmacy, and Walgreens Pharmacy
 - a PGY-1 residency in public health, at the Kansas City Care Clinic
- The school also provides faculty support to the following residency programs:
 - Center for Behavioral Medicine (2)
 - Truman Medical Center (4)
 - Truman Medical Center, Lakewood (1)
 - University Hospital at MU (3)

Clinical Practice Locations and Number of Faculty Placed

Within the Division of Pharmacy Practice and Administration there are 31 clinical faculty who are located in 18 practice sites in the Kansas City metropolitan area and Columbia.

- Center for Behavioral Medicine, Kansas City (1)
- Veterans Administration Hospital, Kansas City (1)
- Veterans Administration Hospital, Columbia (1)
- University of Missouri Hospital, Columbia (3)
- Woodrail and Fairview Ambulatory Clinics, Columbia (2)
- Truman Medical Center Hospital Hill, Kansas City (3)
- Truman Medical Center Lakewood, Kansas City (1)
- Truman Medical Center Psychiatry, Kansas City (1)
- Social and Administrative Health Sciences, Kansas City (5)
- Drug Information Center, Kansas City (3)
- Red Cross Community Pharmacy, Kansas City (1)
- Community Pharmacy Residency Programs, Kansas City (1)
- St. Luke's Multispecialty Clinic, Kansas City (1)
- Centerpoint Medical Center (1)
- Jackson County Shared Care (1)
- Research Medical Center (1)
- Trinity-Goppert Clinics at Research (2)
- KC Care (2)

Examples of Student Organization Community Engagement

- APhA-ASP: At patient care projects including university health fairs, state fairs, and farmers markets and fall festivals, students have screened for diabetes, hypertension, cholesterol, heartburn and risk of falls, and provided immunizations. Students on each campus also worked with local law enforcement and environmental agencies on "National Take-Back Day" to safely dispose of expired and unused medications.
- APhA-ASP members participated in the AIDS Walk.
- APhA-ASP members competed and attended the Rx Factor to support Kappa Epsilon.
- AMCP students are working with the Kansas City Antibiotic Resistance Task Force to educate the community about antibiotic resistance.
- Kappa Epsilon sponsored a blood drive for the Community Blood Center.
- Kappa Epsilon participates in the medical assistance program at the Shared Care Free Clinic of Jackson County.



- Kappa Epsilon members gave seven poison prevention presentations at area schools. Approximately 120 children were educated on the dangers of household chemicals. A poison prevention board was on display at two different sites to help educate parents about household chemicals.
- Kappa Epsilon members organized a Relay For Life team in May.
- Kappa Psi members held their 11th annual Volley For Charity tournament, with proceeds shared between the American Cancer Society and a fellow classmate who is currently battling cancer.
- Kappa Psi hosted a spring formal social event and recognized senior members with a small social in May.
- In Columbia, students assist at MedZou, a student-operated community medical clinic that provides free primary health care.
- Public Health Organization continued volunteering at the Sojourner Clinic, a free health clinic conducted at Unity Temple by students from the UMKC School of Medicine in downtown Kansas City.
- PHO students made hygiene kits for a women's shelter at the Grand Avenue Temple.

Other Community Engagement

Healthy for Life: T.E. Atkins UM Wellness Program is the University of Missouri's established employee wellness program which spans all four system locations and serves all benefit-eligible employees. In 2010, the School of Pharmacy established a collaboration with this program to conduct health screenings and flu shot clinics annually for employees. Our P3 IPPE students are actively involved in providing services at these events, allowing them to utilize therapeutic knowledge and employ many direct patient care skills. Students screen patients seeking immunization, obtain consent, and administer flu shots. Biometric screenings are also performed, where students measure blood pressure, perform a finger-stick to obtain a blood sample for blood glucose and lipid panel readings, and obtain patient height and weight to calculate body mass index. This collaboration engages students and faculty and allows us to demonstrate the knowledge, skills, and impact that pharmacists can have on community health and wellness. The table below summarizes our involvement with Healthy for Life.

New for 2013 in Kansas City, we have been able to expand our services to collaborate with Children's Mercy Hospital where we participated in their "Family and Friends" program and administered 262 flu shots in the fall.

Healthy For Life Summary Information	2010-2011		2011-2012		2012-2013		2013-2014	
	KC	MU	KC	MU	KC	MU	KC	MU
Flu Shots Administered			431	322	515	652	375	682
Biometric Screenings & Education			353	570	377	202	*	*
Students	109		124		128		124	
Faculty	12		14		14		8	

SOP immunization protocol was established in 2011

*Data is not in yet, as we are still conducting screenings through the spring

In the Healthy for Life program, students and faculty administered approximately 20% more flu shots in KC compared to 2012. In Columbia, the 2013 numbers were almost double the 2012 numbers (from 322 in 2012 to 652 in 2013).

Goal IV.C. Increase the financial support from external constituents

Objective IV.C.1. Establish endowed chairs

Objective IV.C.2. Increase the number and size of scholarships and gifts to the school

Measures of Success:

- Funding of four new endowed chairs
- Number of new scholarships added each year with an annual increase in overall scholarship dollars each year
- Dollars raised by school per year
- Total number of donors (including organizations) each year

Endowed Chairs

The School of Pharmacy's goal and project list in the UMKC 2009-2015 capital campaign includes funds requested for four endowed positions. To date, none of these positions has been funded. These chair goals include:

- Division of Pharmacology and Toxicology
 - \$1.5 million of private funds for an endowed chair in Geriatric Pharmacology (priority level—immediate)
 - In 2010, a donor pledged a planned estate gift of \$2.7 million for an endowed chair in geriatric pharmacotherapy
 - \$750,000-\$1.5 million for an endowed chair or professorship (priority level—future)
- Division of Pharmaceutical Sciences
 - \$750,000-\$1.5 million for an endowed chair for an endowed chair in Drug Design and Delivery (priority level—future)
- Division of Pharmacy Practice and Administration
 - \$750,000-\$1.5 million for an endowed chair or professorship (priority level—future)

Major Gift

In April 2014, Carol and Andy Riley established an estate trust gift of \$1.7 million to be used for pharmacy student scholarships and the naming rights for the student lounge at the school's new site at MSU in Springfield. The lounge was named in honor of Mr. Riley's parents, Clarissa and Weldon. Andy Riley is a 1974 pharmacy alumnus, and Weldon Riley was a 1960 pharmacy alumnus. The Riley Student Lounge was dedicated with a ribbon-cutting ceremony at the site's grand opening event on October 29, 2014.



Scholarships

The capital campaign goal and project list includes scholarship support, with goals to raise:

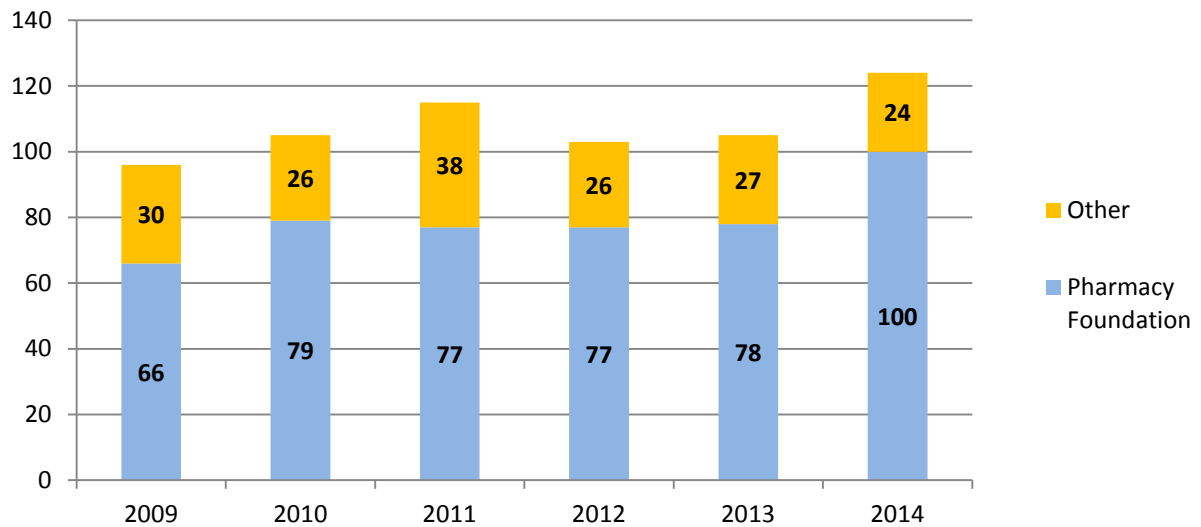
- \$500,000 of private funds for the creation of new scholarships specifically for the doctor of pharmacy program and students at the Springfield site (priority level—immediate)
 - To date, no funds have been raised toward this goal.
- Pharmacy Foundation
 - \$500,000 of private funds for the creation of new scholarships to support the doctor of pharmacy program (priority level—ongoing, both immediate and future)
 - This goal has been reached, with approximately \$800,000 raised in 2009-2014.

- \$100,000 of private funds for the creation of new scholarships for the support of students in the school's Ph.D. programs (priority level—immediate)
 - In fall 2014, a new annual \$500 scholarship was awarded to a female graduate student in the Interdisciplinary Ph.D. program.
- \$1 million of private funds for an endowment to provide emergency loans and support for pharmacy students (priority level—immediate)
 - In 2010, a donor pledged a planned estate gift of \$300,000 to endow a student emergency fund, which will provide short-term loans to students who need assistance in meeting an urgent personal financial need.

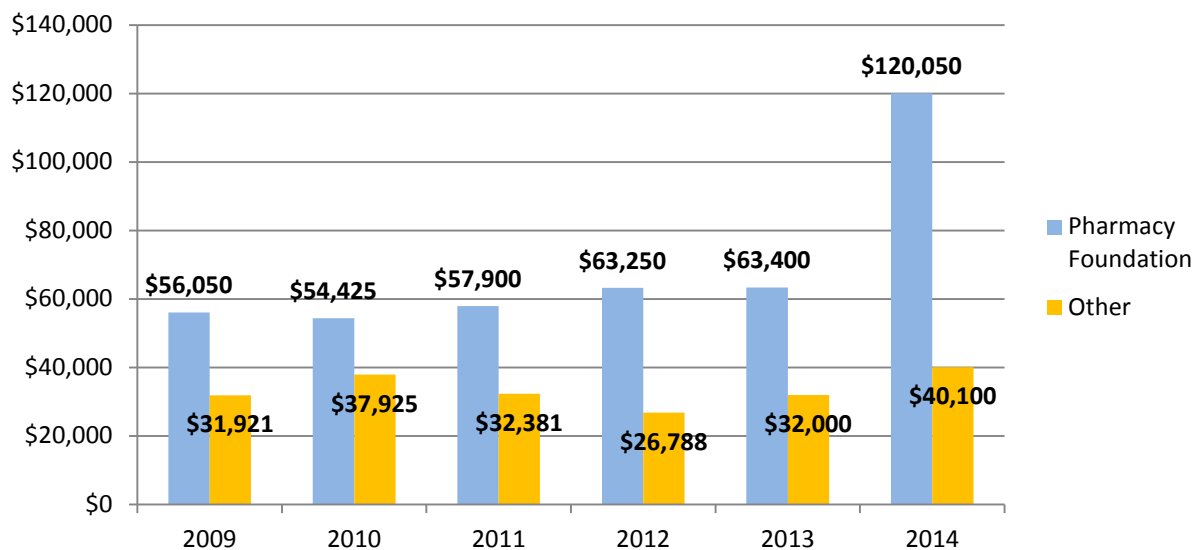
Progress

- Pharmacy Foundation
 - New scholarships:
 - Fall 2009: three new annual scholarships
 - Fall 2010: four new endowed scholarships; four new annual scholarships
 - Fall 2011: two new endowed scholarships; six new annual scholarships
 - Fall 2012: one new endowed scholarship; one new annual scholarship
 - Fall 2013: one new endowed scholarship; five new annual scholarships; one one-time scholarship
 - Fall 2014: two new endowed scholarships; six new annual scholarships; one one-time scholarship
- Scholarships awarded in fall 2014:
 - Doctor of pharmacy students:
 - The Scholarship and Awards Committee selected the recipients of 114 scholarships, totaling \$147,650.
 - Three students received renewals of their \$2,000 scholarships, totaling \$6,000.
 - A \$2,000 scholarship was awarded to a recipient selected by the scholarship's donor.
 - The Kappa Psi Pharmaceutical Fraternity selected the recipient of their \$500 scholarship.
 - Graduate students:
 - The Graduate Programs Committee selected the recipients of four scholarships, totaling \$3,000.
 - A scholarship of \$1,000 was awarded to a recipient selected by the scholarship's donor.

Numbers of scholarships awarded:



Amounts awarded for fall scholarships:



Scholarships Awarded 2009-2014

- Pharmacy Foundation scholarships:
 - Grace Hoelzel Albano
 - Fred Angle
 - Elizabeth Ballew Drug Information Center
 - Baptist-Trinity Lutheran Legacy Foundation
 - Wright V. & Gladys A. Bartholomew
 - Mary and Francis "Bud" Bisceglia Memorial
 - Dennis R. Bond
 - Barbara Booth and Alice Miller Memorial

- Shelton Bower Memorial
- Lewis Bratt
- Donald R. Brown
- Burch and Sabo
- Shawn Burke Memorial
- Isaac and Lakesha Butler–You Can Do All Things
- Century Club Clinical
- Century Club Hospital
- Class of 1975
- Class of 1982
- Class of 2011
- Class of 2013
- Class of 2014
- D & H Prescription Drug Store
- Adele and Glenn Eberhart
- Leslie Eisenbrandt
- Erickson Family
- Mary and Tim Euler Student Mentor Award
- Fendler Family
- Kathy McClary Fife Memorial
- Brian and Linda Garavalia Doctoral Student
- Greater Kansas City Society of Health-System Pharmacists Book
- Spencer S. Glenn Memorial
- Glenski Family
- Good Neighbor Pharmacy Community
- Travis and Maqual Graham
- Donald W. Grove, Sr.
- George Guastello
- George Guastello/Albers Medical Pharmacy
- Harvey H. Haynes
- Judith Hemberger Graduate
- Bruce J. "Bud" Huber Memorial
- Richard and Paula Johnson Pharmacy Graduate Student
- Kappa Epsilon Community Services
- Deborah and Paul Kavanaugh
- Michael Ketchmark
- Robert C. Lanman Graduate Pharmacology
- Rocky and Laurie Levell
- Lindman-Gershman
- Monica E. Manasseh
- Mitzi McGee Memorial
- Wes McIntire
- J. Leo McMahon
- Joe McNerney Pharmacy Leadership
- Stephanie and Russell Melchert
- Missouri Pharmacy Foundation
- Missouri Small Community Practice
- Tim Mitchell Medical
- Timothy G. Mitchell

- Mid-Missouri Society of Health-System Pharmacists
- NABP-AACP District 6
- National Association of Chain Drug Stores
- Jim Newman Memorial
- Kit Ngoc Nguyen
- Norman Family Community Pharmacy
- Noel O. Nuessle
- RAN Institute
- NCPA/William E. Osborn
- Optum Rx (Prescription Solutions)
- PBA Health/TrueCare Pharmacy
- Pharmacists Mutual
- Robert W. Piepho
- Plattsburg Clinic Pharmacy
- Amina Powell/Jay Fulce
- Powers Family
- Proctor/Boyd Family
- Red Cross Pharmacy
- Erik Roehrs
- Thomas D. Ross Memorial Graduate
- Toni Sena Memorial
- Joseph G. Shalinsky
- Leo Shalinsky
- William & Carole Sitland
- Andrea and Dale Smith
- Smock Family
- Ellen and Roger Sommi
- Spalitto Pharmacy
- Anthony J. Spalitto, Sr.
- Bruce and Shirley Stocker
- David A. Strauch
- Harry N. Tishk
- Fred Tonnies
- Kathleen Tonnies
- Phyllis Vaughn
- Visiting Nurse Association
- Mathew W. "Bill" Wilson
- Marcus and Missy Wilson Family
- Lawrence G. Windmoeller/Mid-Missouri Society of Health-System Pharmacists
- Robert L. Wolf Memorial
- Ray Zumwalt Memorial
- Other School of Pharmacy scholarships:
 - CVS/Pharmacy Community
 - Lewis D. DeClerck Memorial
 - Kilgore's Medical Pharmacy
 - Alexander & Mary Margolis & Bernard A. Margolis Perpetual Memorial
 - Nyberg Pharmacy Independent Pharmacy
 - Stanley M. Reinhaus Family Foundation
 - Morris R. Shlensky

- Evelyn Suffecool
- Suffecool Plank
- Walgreens Diversity
- Wal-Mart

Fundraising Numbers

The campus advancement office reports fundraising data on a fiscal year basis. Fundraising for the School of Pharmacy for 2011-2014 is presented in the following table.

	Funds raised	# of donors
Fiscal year 2011 (July 1, 2010-June 30, 2011)	\$248,375.49	444
Fiscal year 2012 (July 1, 2011-June 30, 2012)	\$181,102.02	398
Fiscal year 2013 (July 1, 2012-June 30, 2013)	\$513,502.16	413
Fiscal year 2014 (July 1, 2013-June 30, 2014)	*\$148,865.69	304

* In addition to the funds raised in fiscal year 2014, another \$1,666,666.66 was received as a bequest expectancy pledge.

The UMKC campus is currently engaged in a capital campaign running from 2009-2015. From December 1, 2009 through June 30, 2014, the School of Pharmacy has raised \$8,689,747.30 in gifts and pledges for the recording time period of the campaign.

In February 2013, the School of Pharmacy partnered with the School of Nursing and Health Studies to hire a person for a new position, director of major gifts. The position is divided 50/50 between the two schools. One of the director's charges was to raise funds from the master's and Ph.D. alumni to support the School of Pharmacy's bridge grants to researchers, and \$5,100 has been received.

Goal IV.D. Broaden alumni engagement in school events, planning, and educational endeavors

Objective IV.D.1. Establish, sustain, and document regular channels of communication between alumni and the School of Pharmacy

Objective IV.D.2. Provide and document regular opportunities for alumni to connect with current students through involvement with student organizations and other student activities (e.g. invite alumni to provide guest lectures in courses, serve on school committees, serve as preceptors, participate in school planning activities, etc.)

Objective IV.D.3. Recruit recent graduates to regularly participate in alumni events

Measures of Success:

- Total number of alumni (number updated each year)
- University rank for alumni engagement
- Percentage of alumni who participate in school and university events
- Number of actively involved alumni in alumni association events and breadth of participation across alumni
- Percentage of alumni current e-mail addresses obtained
- Number of alumni preceptors (at least one student per year)
- Regular channels of communication are sustained
- Alumni participation on school committees and in school events

- Alumni numbers:
 - As of July 2014, the campus advancement office records show that the School of Pharmacy has 3,658 presumed living alumni members; 3,609 are listed as “potentially contactable,” 3,046 of them have a mailable address, 2,281 have a known phone number and 1,902 have a known email address.
- University rank for alumni engagement:
 - The School of Pharmacy ranked number one on campus for alumni donor participation in fiscal years 2008-2013, and ranked number three on campus in FY14. Alumni donor participation percentages have been tracked since fiscal year 2006.
 - The school has ranked number one for volunteer engagement for the past seven fiscal years (FY07-FY14), contributing 52% of all volunteer service hours recorded by the entire UMKC campus in 2013-14. Volunteer engagement has been tracked on this campus since fiscal year 2007.
- Number of alumni preceptors:
 - 334 pharmacy professionals are on the 2014-2015 list of preceptors for the Division of Pharmacy Practice and Administration, and a large percentage of them are alumni.
 - in 2008-2009, the school reported that preceptors provided 66,881.5 volunteer hours
 - in 2009-2010, the school reported that preceptors provided 108,480 volunteer hours
 - in 2010-2011, the school reported that preceptors provided 118,080 volunteer hours
 - in 2011-2012, the school reported that preceptors provided 100,400 volunteer hours
 - in 2012-2013, the school reported that preceptors provided 119,760 volunteer hours
 - in 2013-2014, the school reported that preceptors provided 122,280 volunteer hours
- Channels of communication:
 - The School of Pharmacy’s director of advancement creates the *Postscript* magazine, our alumni magazine and newsletter that is mailed to approximately 3,000 pharmacy alumni and 200 other friends of the school. In addition to feature articles on students, faculty and alumni, the publication includes news from students, faculty, staff and alumni, and listings of faculty activities in the areas of service, awards, honors, presentations, contracts and grants.
 - The director of advancement sends email announcements of news, awards and events to members of the Pharmacy Foundation and Pharmacy Alumni Association, and distributes written reports at meetings of the foundation, alumni association, and Dean’s Advisory Council.
 - Alumni and students participate on the school’s Facebook pages, and several alumni classes have their own pages.
 - The school’s web site features a regularly updated news section that offers the school’s alumni and constituents a convenient way to receive updates on the activities and achievements of the school. The site also features a calendar where alumni and constituents can find out about upcoming events at the school.
- Alumni participation on school committees and in school events:
 - Alumni service on school committees
 - in 2009-2010, four alumni served on: Admissions and Academic Requirements (1); Curriculum (1); Scholarship and Financial Aid (2)
 - in 2010-2011, eight alumni served on: Admissions and Academic Requirements (1); Curriculum (1); Scholarship and Financial Aid (1); Future Trends Task Force (5)

- in 2011-2012, six alumni served on: Admissions and Academic Requirements (1); Curriculum (1); Scholarship and Financial Aid (2); Task Force on Diversity (1); Research Advisory Council (1)
- in 2012-2013, three alumni served on: Admissions (1); Curriculum (1); Task Force on Diversity (1)
- in 2013-2014, three alumni served on: Admissions (1); Curriculum (1); Task Force on Diversity (1)
- in 2014-2015, three alumni served on: Admissions (1); Curriculum (1); Task Force on Diversity (1)
- Dean’s Advisory Council: 29 of the 34 members of the Dean’s Advisory Council are School of Pharmacy alumni. The council invites students to their spring and fall meetings, to meet one-on-one with the members.
- Pharmacy Foundation: In 2014, 24 of the 28 members of the Pharmacy Foundation Board of Directors were School of Pharmacy alumni. Board members have opportunities to interact with students at the annual golf tournament, the Achievers of Excellence program, and other school activities.
- Pharmacy Alumni Association: 15 alumni serve on the Pharmacy Alumni Association.
- In June 2014, Alumni Association board members assisted pharmacy students with signing thank-you cards to all donors to the School of Pharmacy from fall 2013.
- In November, the Pharmacy Alumni Association hosted the fourth annual “Tiger-Roo Tailgate” event in Columbia prior to the MU vs. Kentucky football game. Over 70 people participated in the event to celebrate the school’s alumni, students, faculty, staff and friends affiliated with the pharmacy program on the Columbia campus.
- Several alumni serve as guest speakers in pharmacy courses such as Professional Skills Development and Grand Rounds.
- APhA-ASP invites alumni to speak at some of their events, and supervise them at health screenings.
- Alumni attend Kappa Psi’s annual Volley for Charity event, and Kappa Epsilon’s Bowling for Breast Cancer fundraiser.
- In addition to preceptors, the school reported the following volunteer hours for events and meetings of the Pharmacy Alumni Association, Pharmacy Foundation, and Dean’s Advisory Council:
 - 2008-2009: 192 hours
 - 2009-2010: 176 hours
 - 2010-2011: 377 hours
 - 2011-2012: 150 hours
 - 2012-2013: 323 hours
 - 2013-2014: 242 hours
- The Pharmacy Alumni Association sponsors annual student appreciation days in both Kansas City and Columbia.
- In 2012-13, 22 alumni participated in interviewing applicants to the doctor of pharmacy program.
- Pharmacy alumni serve as speakers each year at the Achievers of Excellence program.
- In spring 2009, 2010, 2011, 2012, 2013 and 2014 alumni served as the keynote speakers for the School of Pharmacy commencement ceremonies, and a representative from the Pharmacy Alumni Association also speaks each year.

Recruit Recent Graduates to Regularly Participate in Alumni Events

- Membership in both the UMKC Alumni Association and the Pharmacy Alumni Association is automatic, and members have not been charged dues since 2007.
- All alumni with current contact information are invited to participate in activities such as the annual Pharmacy Foundation golf tournament, the annual alumni wine tasting event, and the annual alumni reunion weekend (events include a Friday night social, Saturday continuing education classes, and Saturday night alumni awards dinner).
- Receptions for alumni in the Springfield area were held in July 2011 and 2012.
- A grand opening event complete with ribbon-cutting and reception was held on the Missouri State University campus in Springfield on October 27, 2014 to celebrate the launch of the third school of pharmacy location. The pharmacy site in Brick City was filled with a capacity crowd of attendees for this event, most of whom were alumni or friends of the UMKC School of Pharmacy.