

eReports

Career Paths in Academic Pharmacy

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publications

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INTRODUCTION

This eReport is designed to provide you with a real-life, concise introduction into the variety of roles and responsibilities of careers in academia. You will find two perspectives from experienced practitioners in this area, three perspectives from new practitioners in this area, and a perspective from a current resident with their detailed descriptions of a PGY2 Internal Medicine/Academia residency as well as references and a list of [links and resources](#). Academia is an area of pharmacy practice in which pharmacists may pursue a myriad of different career paths. Pharmacists working in academia may be employed by either a college or university as well as employed by another entity such as a health-system, community pharmacy, or other site where they host their clinical practice. This area of pharmacy offers flexibility, variety, and innovation. A career in academia focuses on teaching, scholarship, and service. Depending on the employing institution's type of job description, a pharmacist in academia may have varying levels of responsibility in each area.

PERSPECTIVES FROM TWO EXPERIENCED FACULTY

Janis J. MacKichan, PharmD, FAPhA, and Susan P. Bruce, PharmD, BCPS

The Career

As a pharmacy faculty member, you will be practicing within a college or school of pharmacy that is either stand-alone or part of a university or academic medical center. Colleges differ in their size, and may be private or public, new, or established. Some faculty will spend all of their time on the college campus, but a growing number of faculty also spend time teaching students in a practice or patient care setting. These faculty positions are known as *clinical faculty* or *shared faculty*. Your major responsibilities include teaching, scholarship, and service. *Faculty positions* may be designated as either tenure track or non-tenure track and the weighting of responsibilities depends on the type of position as well as the mission of the college. Your teaching responsibilities may include giving lectures, facilitating small group discussions or laboratory sessions, extracurricular meetings with students or advisees, and precepting students at practice sites. Your scholarship contributions will ultimately involve the communication of new knowledge or the application/integration of knowledge via publication, presentation, or poster. Your scholarship may also include the submission of grants to financially support research projects. Service responsibilities will typically include membership or leadership on college, university, and/or professional organization committees. In a *shared faculty position*, patient care or innovative service development will be a particularly heavily-weighted service responsibility. Community service may also be an expectation, depending on the mission of the college. The requirements for entry into pharmacy academia vary depending on the type of position. A doctorate degree is most often required if you are interested in a campus-based position in social-administrative or pharmaceutical science departments. Shared or campus-based positions in a pharmacy practice department require state licensure, a PharmD, and postgraduate training—one to two years of residency or possibly also a fellowship. Experienced pharmacists (without postgraduate training or PharmD degrees) are often seen in faculty positions that focus on introductory and advanced pharmacy practice experience (IPPE and APPE) precepting or instruction in practice skills laboratories.

A Typical Day

It is very difficult to define your typical day because no two days are the same for a faculty member! You must be able to balance all responsibilities and achieve your annual goals in each area. Depending on the time of year, your efforts may shift from one category to another. For example, during a period of intensive teaching, you may limit the amount of time seeing patients or working on a publication. Similarly, when classes are not in session, you are more likely to spend time focused on completing scholarly projects.

Balancing all academic responsibilities can be even more challenging if you are in a clinical or shared faculty position because you must also consider your practice site responsibilities.

Excellent organization and time management skills are necessary to make this type of position beneficial to all parties involved. From one academic year to the next, you must pay attention to the requirements for promotion and/or tenure to ensure that you are progressing through the academic ranks. A new faculty member is typically appointed as an assistant professor. Although promotion criteria may vary from one academic institution to another, an assistant professor must demonstrate a record of accomplishment over at least 5 years before being eligible to apply for promotion to associate professor; an associate professor is typically eligible for promotion to full professor after a minimum of 7 years.

As you progress through the academic ranks, you may become interested in the administrative activities of the college or university and assume roles with specific administrative responsibilities. For example, a department chair is a faculty member who leads the operation and management of the department. As a chair, your responsibilities include setting a vision for the department, managing department resources and operations, faculty development, overseeing curriculum, and representing the faculty to administration and other groups within the college and university. Although the majority of your time is devoted to administrative responsibilities, you may continue your teaching, service, and scholarship activities. Other pathways for administrative leadership include assistant/associate dean positions. Assistant/associate deans focus on a defined area of responsibility on behalf of the dean. For example, an associate dean of academic affairs oversees the academic support of the college or university that may include admissions and student affairs. As you progress through your academic career, there are many opportunities for you to explore new areas or responsibilities throughout the college or university. As the professions of pharmacy and pharmacy education continue to evolve, new roles and responsibilities will emerge in colleges and universities.

The Appeals and Challenges

Individuals who are interested in pharmacy faculty positions possess many of the following traits: a passion for learning, inspiring others, and impacting patient care; intellectual curiosity; a desire to collaborate with others; and a record of independent accomplishment. Challenges you might face include finding the balance between teaching, scholarship and service; establishing a new lab or practice site; learning how to teach and precept; finding a focus area for scholarship; and preparing for tenure and/or promotion in rank. Many of these challenges can be overcome by choosing a school that matches your goals and seeking regular feedback from a colleague or mentor. If a faculty position is a good fit for you, the appeal far outweighs the challenges. You will have professional and intellectual autonomy; varied experiences from day to day; and flexibility and freedom in defining your work arrangements and schedule. More importantly, you will experience the joy and satisfaction of teaching highly motivated students, undertaking scholarly projects, and networking with professional colleagues across the country.

PERSPECTIVE FROM THREE NEW PRACTITIONERS IN ACADEMIA

Perspective I

Zachary Jenkins, PharmD

Why Did You Choose Academia?

I first became interested in academia early in my pharmacy education. One of the things that I found most intriguing by the idea of a shared faculty position was how beautifully clinical practice experience translated to the classroom setting and back. After my first few encounters with clinical faculty, I knew almost immedi-

ately that I wished to obtain such a position myself. To prepare myself, I elected to take part in an academic IPPE rotation and an APPE rotation in my third and fourth years of my graduate education, respectively. I later participated in a teaching certificate program during my PGY1 residency program, which provided me with even more exposure to academia. With this experience under my belt, I was fortunate enough to find a clinical faculty position at the completion of my residency training.

The Career and a Typical Day

It is important to recognize that not all faculty positions are created equally. Traditionally, a shared faculty position is described by the amount of time that a clinical faculty member spends at their practice site versus their academic site. In some cases, this is clearly defined. For example, faculty members in an ambulatory care setting may devote roughly 40 percent of their time to academia and 60 percent of their time to their clinical practice. Although it was never formally spelled out in a job description, I would describe my current position as being approximately 70 to 80 percent "clinical" and 20 to 30 percent academic. This means that I spend most of my time at my practice site, but I still must devote a significant amount of time to my academic responsibilities. This number, however, is only an *estimate*. In practice, both my clinical site and my academic site have their own unique demands that fluctuate within a given time frame.

It is also important to recognize that teaching responsibilities will often vary. Most faculty members are hired to assist with didactic instruction in a specific area. This limitation is usually in name only, and faculty members are often called to assist with other courses as needs arise based on their individual availability and expertise. As a new faculty member, my teaching responsibilities are, in some ways, still being fleshed out. I was hired to assist with the development and execution of the Infection and Immunology course. However, having come directly from a Post-Graduate Year 1 (PGY1) residency based out of a large academic medical center, my background in adult internal medicine has allowed me to provide didactic instruction in a variety of courses. At present, I have had involvement in several different therapeutics courses including cardiology, renal/gastrointestinal, and infection and immunology.

A faculty member's responsibilities do not usually end with didactic instruction. At my institution, all faculty members are required to help assist with small group facilitation and simulation activities across the spectrum of the curriculum. Although most didactic teaching is typically seasonal, these types of teaching can occur anywhere in the academic year. When and how this occurs is largely based on the needs of the course in question and each faculty member's current workload. Beyond teaching, each faculty member at my institution must maintain a number of other academic service responsibilities. For example, I currently sit on the Curriculum Committee and also serve as an academic advisor. I also frequently assist with student interviews and advise a student organization. In general, I am at the university once a week for an office day. I usually spend this time in meetings with faculty, developing teaching materials, meeting with students, or working on an assortment of projects.

Some shared faculty positions are paired with a clearly defined practice whereas others require the faculty members to develop their own clinical practice. In my case, my position is the latter model. When I was initially hired, I was introduced to a handful of practice sites within a region and asked to choose among them. From the university's standpoint, my practice could be anything clinically focused in an inpatient setting as long as it was designed to provide a good APPE experience. During this process, I spoke with staff at several sites and performed a needs assessment to determine where my experience and skillset would best serve. Ultimately, I was able to find a practice site that is a great fit for me.

The practice site I chose is a small academic medical center that is part of a large healthcare system. What makes my site unique is that it has the feel of a community hospital but also has many of the policies and

educational opportunities that one might see in a larger hospital. As such, clinical pharmacy is embraced, and the opportunities to develop novel, patient-centered services abound. Currently, I am developing a Transitional Care service that will focus on addressing patient pre-discharge issues. Like any other type of clinical service, this takes a significant amount of planning and discussion. Patients certainly come first; however, as I am building my practice, I always try to consider how to best design an appropriate experience for APPE students.

During a typical week, I am present at my practice site Monday through Thursday for an average of 8 to 10 hours each day. I begin each day at my practice site by checking both my university and my hospital e-mail accounts. Then I spend time at my site training in one of our many pharmacy department areas, delving the literature for more evidence that I can use to construct my practice, or meeting with various stakeholders who wish to have a part in the development of my clinical service.

One of the responsibilities of any shared faculty member is developing an area (or areas) of scholarship. The advantage of developing your own practice site is that there are usually many opportunities for research. For example, I am planning on documenting all of the data related to my service—including both my successes and failures—with the hopes of providing guidance for other individuals who wish to implement similar services. However, a clinical faculty member's research interests need not be limited to clinical practice alone. A hybrid role also allows research to be conducted in an academic setting (i.e., the scholarship of teaching and learning). Because I am quite interested in the areas of interprofessional education and active learning pedagogies, I have several projects related to both topics running simultaneously in the background.

A Teaching Experience

To date, one of my most rewarding teaching experiences was developing a simulation designed to introduce second-year pharmacy students to basic Advanced Cardiac Life Support (ACLS) concepts. Knowing that codes are interdisciplinary in nature, I designed the activity to thrust each of our students into the roles of a various code team members, with one student playing the role of the pharmacist. The code scenario was developed with branching end points, and I placed particular importance on the pharmacist's role on a code team by making the outcome of the scenario reliant on the pharmacist's ability to recommend the right medication at a critical moment. However, given logistical constraints, I knew that I would be unable to have every student participate in this simulation. To combat this, I decided to choose a team of students at random who would serve as the code blue team. To address the dilemma of only having a single group participate, I elected to stream a live video feed of the simulation down to the classroom from our simulation suite. Students were informed that this would take place in advance of class and were provided with both a reading and viewing assignment to prepare for this activity.

When the day of class arrived, I selected a group of students to participate in the simulation activity at the start of class. While the rest of the students completed a quiz on their reading assignment, I oriented the code team to their assigned roles and responsibilities, providing them with tools or scripts as appropriate. For the purposes of the simulation, I played the role of a tired emergency medicine resident who was in charge of the code. The student participants took their roles seriously and gave excellent performances. I was both surprised and excited when our student pharmacist made the correct drug decision for the mock patient.

I knew that simply watching the code, however, would not be enough for our students so I planned and delivered a debriefing session with the rest of the class following the simulation. The debriefing session discussed the case in detail, highlighting important facts about the patient and the critical decisions made during the code. Emphasis was placed on medication use, rhythm patterns, the ACLS algorithms, and team

member roles. When we began to review team member roles, I called the team that participated in the code to the front of the room. As I explained each unique role, I had the student who played a specific role (e.g., pharmacist) share his or her newfound insight. It seemed to be particularly meaningful for students to see their colleagues come back to the classroom hot, sweaty, fatigued, and visibly shaken. This realism helped to drive home the seriousness of the code and stimulated discussion. To my encouragement, the class remained engaged throughout the session. I even had several students tell me how much they enjoyed the activity.

How to Pursue This Career Path

One of the best lessons I learned during my residency training was that patient care does not end when you go home. The same applies to clinical faculty members. I must always be concerned with the safety and well-being of my patients. What makes my role different from that of a standard practitioner, however, is that I must also strive to elevate the needs of my students above my own. I like to use the phrase, *patients first, students second*. What I have just described may sound like a lot for one person to manage. This is, to some extent, true. Juggling all of these responsibilities can be difficult. I can assure you, however, that the payoff is well worth it. I have always enjoyed the challenge of learning new things, the joy of sharing knowledge with others, and the thrill of making a difference in the lives of both my patients and my students. My current position allows me to experience all of these things and more. If you are up for a challenge, have a passion for clinical pharmacy, and love education, I highly recommend seeking out a shared faculty position.

Perspective II

Mate M. Soric, PharmD, BCPS

The Career and a Typical Day

For a faculty member in a shared clinical/academic role, the typical day is very difficult to define. I typically spend four days per week in clinical practice and one day per week fulfilling academic responsibilities; however, the split can vary dramatically depending on the model employed at any given institution. The practitioner portion of my position allows me to provide direct patient care on an inpatient service, run an outpatient ambulatory care clinic, serve as the director for pharmacy residency programs, precept pharmacy students, and get involved in various administrative activities. One day I might be in high-level meetings regarding expansion of pharmacy services and the next I could be in the trenches addressing medication-related problems, improving patient care, and teaching students along the way. When on campus, I am able to turn my attention to developing lectures, serving on committees that shape the curriculum, and conducting research or other scholarly activities.

This type of position requires paying particular attention to meeting the various expectations across multiple practice areas. It is fairly easy to see how having roles in such different practice settings could lead to being spread too thin, burning out, and being ineffective at each site. For instance, it is important that I do not allow my teaching and scholarship responsibilities to fall by the wayside if my patient care services get too busy. To avoid this, I set aside dedicated time each week to review how I am doing in all of the different aspects of my career. Even if the hospital census is high, I must still make time in each week's schedule to complete my academic and research responsibilities.

Projects will also vary depending on the origination site. In order to maximize productivity, however, it helps to double-dip so that projects from the academic side of my position can cross over and be of use to the practice side (and vice versa). Examples include using materials from lectures given on campus as continuing education or nurse in-services at the practice site. Alternatively, innovative practices that

are developed at the practice site could be converted into scholarly presentations or publications that are important for disseminating knowledge and strengthening the case for tenure or promotion.

How to Pursue This Career Path

For all of the potential stress that having a shared position brings, I also feel that having one foot in practice and one foot in academia allows me to excel in both. Maintaining patient care responsibilities means I can bring real-world cases and experiences to the classroom and conduct research that is relevant to current pharmacy practice. Teaching pharmacy students, in turn, pays dividends in my practice. They can be deployed as pharmacist extenders to allow me to impact far more patients than I could ever see alone, keep my clinical knowledge sharp, and fulfill my desire to impact the future of my profession.

If you are looking to enter a shared position that resembles my current one, it is important to gain a wide array of experiences that match the kinds of roles I currently fill. Postgraduate training is becoming a requirement for clinical positions and a second year may be needed if there is interest in a specialized area of pharmacy practice. In addition to these clinical experiences, however, it is crucial to gain experience in the areas of research and teaching. If possible, try to take the reins on a research project of your own and see it to completion (all the way to publication). Seek out additional speaking and teaching opportunities that may not be considered required for the typical resident or student. These could include providing lectures at a local college of pharmacy or instructing continuing education courses within your institution or at regional or national meetings. Many residency programs are offering teaching and scholarship certificate programs that offer advice from experts in these fields and opportunities to apply what you learned in a classroom or research settings. The available networking opportunities may also become important when seeking a position or asking for recommendation letter writers. There are many organizations and resources that offer advice when seeking a position in academia. Resources and suggestions can be found in the [Resources](#) section later in this eReport.

Perspective III

Timothy R. Ulbrich, PharmD, RPh

The Career and a Typical Day

The transition into a career in academia can be one that is rewarding and daunting all at the same time. Depending on the position (tenure-track versus non-tenure track) and the institution (e.g., research focused versus teaching focused), individuals entering the academic environment will have their time distributed in different ways. For the most part, practice-based pharmacy faculty members will be dividing their time among patient care, scholarship, teaching, academic service, and professional organization service. This balance between multiple responsibilities at multiple locations, such as college or university and practice sites, differentiates the academic environment from other positions.

Whenever the question comes up about a typical day in academia, the quick answer is, "it doesn't exist." Because of the multiple responsibilities in practice, teaching, scholarship, and service, no two days generally look the same. One day may be focused heavily on providing direct patient care, the next teaching in the classroom, the next preparing for another teaching assignment, the next precepting pharmacy students or residents, the next working on scholarship, the next attending several committee meetings, and the next a combination of all of the above. For some, this may cause great anxiety, but for others the ever-changing environment is exciting.

How to Pursue This Career Path

Because many new practice-based faculty members do not have extensive training in teaching and research beyond residency training, individuals entering this field require a certain skill set that is led by a constant desire to learn and grow. Several core skills are necessary to establish yourself in the academic environment, including the following:

- *Having a passion for teaching and learning.* Those interested in a career in academic pharmacy must have a passion for utilizing innovative teaching styles that are adaptive to the students in the classroom to achieve optimal learning. For our purposes, *teaching* is defined as didactic or experiential teaching where different skills and techniques may be used. Regardless of the setting, teachers should be motivated to train the next generation of pharmacists which requires a desire for constant professional development for learning more about teaching and learning.
- *Identifying a mentor committed to helping you grow as an educator.* As a new faculty member, the requirements of teaching, scholarship, and service can be overwhelming. Identifying a mentor who can help you get your feet wet in the academic environment is critical. This mentor should be someone who the mentee feels comfortable being open and honest with regarding strengths and areas for improvement. The mentor should be open and available to providing regular feedback and teaching, scholarship, and service expectations. The mentor will play a critical role in preparing the mentee for the promotion and tenure process. Some colleges or universities may have a formal mentoring program, whereas others may be more informal and require more work for the new faculty member to identify a mentor.
- *Enhancing your scholarship skills.* Coming into the academic environment, the scholarship expectations vary from university to the next and can be overwhelming as you try to gain an identity as a practitioner and teacher. Someone new to the academic environment should have a clear understanding of the institution's scholarship expectations. Many practice-based faculty may not have extensive scholarship experiences beyond projects during residency training and, therefore, they must be committed to identifying areas for improvement and resources to help grow in that area. New faculty members should quickly identify potential collaborators in their area of practice locally and across the country that can be potential collaborators. A group of four or five experts in an area can produce a higher quality product in a shorter amount of time than one individual can accomplish.
- *Embracing time management skills.* As previously mentioned, coming into the academic environment as a faculty member with practice responsibilities, teaching, service, and scholarship expectations can be overwhelming. Individuals entering the academic environment should have solid time management skills to balance multiple activities and projects at once.
- *Defining your work-life balance.* As you begin your career, the topic of work-life balance will come up. This is always a work in progress, and for many starting a career, it is a goal to achieve some work-life balance. However, it can be difficult to know what that means if it has not been modeled by others. Therefore, it is very important to observe mentors and preceptors in this area. Finding out what allows them to achieve a balance and how they made it a priority can be very helpful. Working toward a work-life balance also involves setting aside time for hobbies and passions outside of work. It is important to identify at least one to two of these hobbies and allocate time accordingly. You should work with family, friends, and co-workers to express the desired level of balance and set goals to achieve that balance work and life.

For more resources and suggestions, see the [Resources](#) section at the end of this eReport.

PERSPECTIVE FROM A CURRENT RESIDENT IN ACADEMIA

Jaelyn Boyle, PharmD, MS, BCPS

As a PGY2 resident in internal medicine and academia, I can ensure you that no two days are the same for me. This is one of the most appealing parts of my current position, and I would highly encourage anyone who enjoys autonomy, variety, and sometimes even uncertainty in your schedule to pursue residency training as a *shared resident*. As a resident, preparing for a practice-based position throughout this opportunity provides a setting in which one learns how to balance the work of a practice site with the work of academic responsibilities. This experience is challenging and rewarding; if you enjoy impacting both learners and patients as part of your daily responsibilities, you will experience great joy in such a role.

A Typical Day

There is no typical day in my world. A day at my practice site may entail the following activities: pharmacy service, patient safety, direct patient care (both inpatient and outpatient), research and scholarship, organizational work, and hospital or health-system projects. Some days I start out with a staffing component; currently my staffing responsibility is for the dispensing aspects of our oncology pharmacy operations. Although this staffing model may not be typical for a residency program, one of the many exciting parts of working in a small community hospital is that pharmacists are a “jack-of-all-trades” when it comes to pharmacy practice. Then I will usually touch base with the oncology pharmacist to ensure all clinical and operational matters are resolved. I usually spend a short amount of time checking and responding to my university and work e-mails, after which I briefly touch base with colleagues in the pharmacy. My patient care responsibilities usually come next. I spend about an hour working up my patients—my internal medicine physician usually has a patient load of 25 to 30 patients admitted to our service. After preparing my recommendations, I meet with my internal medicine team to discuss our plan of action for our patients’ care. I work with an internal medicine physician, a physician assistant, and an advanced practice nurse on a team who had not previously had exposure to a pharmacist prior to my beginning my PGY2 year. Learning how to establish a new internal medicine service along with developing relationships and rapport with my team continues to be a part of my learning experience this year. Fortunately, I work with a welcoming team who allowed me to impact patient care from the day I began working with them. After rounds, I typically have time for working on projects, teaching, or preparing for the next day’s work. As an academic resident, part of my teaching responsibilities are associated with taking two IPPE students for a majority of the year. It is a great feeling to contribute to their learning via experiential opportunities, see students grow, and also learn from them as they continually test my clinical knowledge. My day usually wraps up by participating in a topic discussion with other residents, preceptors, and students at our site. I encourage my IPPE students to participate in topic discussions for several reasons: learning, exposure to APPE expectations, and inclusiveness.

My academia days average about one day per week throughout the year. During the time on campus, I typically work on projects related to faculty development, academic administration, or instructional design and delivery. My campus days usually consist of meetings related to project work or faculty meetings, teaching, precepting, or preparing materials for future teaching activities. Some days I would develop coursework for the evidence-based medicine elective course for which I was Course Director, while other times I might be in a meeting with the Dean’s office related to advancing initiatives for the college and university. The variety and unpredictability of my days is what I consider the most attractive aspect of my job. Additionally, I enjoy knowing that I am potentially impacting learners who will eventually touch many more patients’ lives than I could ever do on my own. One thing I did not fully realize until my PGY2 experience was the sheer variety of roles one might have in a career of academia.

Daily Responsibilities and Activities

Residency Projects

As a resident focusing on academia, I am working on several projects simultaneously. My residency research projects are focused mainly on patient care activities; one is related to a drug information question I received during my PGY1 training that turned into a prospective, randomized, placebo-controlled trial; the other is a medication-use evaluation of a recently implemented protocol related to our large orthopedic population. Within my health-system, I participate in projects related to quality improvement including implementation of pharmacist education and follow-up of patients after discharge, participation on the patient education committee at the hospital level, participation on a systemwide chronic obstructive pulmonary disease (COPD) committee, and working on projects related to formulary management or patient safety as needed.

Experiences Related to My Practice Site

Internal Medicine. I spend about 60 percent of my time as a shared resident on my internal medicine service at my practice site working as a part of a small interprofessional team. Our team sees patients that range from those in the intensive care unit (our most acute and complex population) to patients of lower acuity such as those with scheduled orthopedic surgery appointments. Of note, this team did not include a pharmacist prior to my PGY2 year. An exciting (and at times, challenging) part of my residency was demonstrating the value of the pharmacist on an interprofessional team. The physician I work with has practiced internal medicine for 30+ years; it was up to me to decide how to be an effective and efficient part of the team. Throughout the year, the team's interprofessional relationships developed, and I truly became part of daily patient care on our service.

Ambulatory Care. Outpatient clinic responsibilities include anticoagulation management, chronic disease state management, polypharmacy consultation, and telephonic medication therapy management encounters through our Accountable Care Organization (ACO) pilot program. This area of practice is where many long-lasting relationships with patients are formed. During routine ambulatory clinic visits a strong connection can be made with patients and their loved ones who accompany them. Some of the best conversations I have had with patients occur during ambulatory care visits because I can ask patients about their life outside of their healthcare issues and find out what really matters to them. The ACO pilot focuses on employees of our organization, but may soon be expanded to Medicare patients, pediatric patients, and privately-insured patients as well. Our telephonic encounters are similar to the in-person encounters we have with patients in the ambulatory care clinic. In talking to patients about possible barriers or opportunities related to their medications, I believe pharmacists are making impactful connections that make a difference in patient care.

Patient Safety. This experience includes activities related to the Joint Commission's policies on preparedness, hazardous medications handling and disposal, evaluation of new and established medications, developing recommendations for Pharmacy and Therapeutics (P&T) Committee meetings, evaluating new protocols/policies, performing failure mode effects analysis (FMEA) and root cause analysis, and identifying and reporting medication errors. Many of these opportunities involve multiple healthcare professionals which provides new perspectives on various patient safety situations. For example, when we were implementing bedside barcode administration, I attended a meeting with various leaders in our hospital including nursing staff, dietitians, administration, and pharmacy leaders to perform an FMEA. This project helped us attempt to predict all of the areas in the barcode administration process in which a potential patient safety consideration needed to be anticipated. It was extremely helpful to have several different perspectives think critically about this technology prior to its implementation.

Pharmacy Service. Staffing responsibilities include inpatient pharmacy, oncology pharmacy; developing and implementing processes related to improving workflow/patient safety, involvement with cost-savings initiatives, and dose adjustments for patients with renal impairment. During that rotation, I established relationships with prescribers that maximized my impact on pharmacy service experiences because of the trust and collaborative nature of our work.

Practice Management (longitudinal and elective rotation). This rotational experience provided exposure to human resource (HR) situations, development of clinical and operational dashboards, development and implementation of new policies/procedures as needed, and development or evaluation of new and existing pharmacy services. This is one of my favorite experiences because I help impact hospital and health-systemwide initiatives and learn the importance of understanding the “business” side of developing and sustaining pharmacy services.

Experiences Related to My Academic Responsibilities

Academic Leadership. I participated in discussions with various academic leaders to gain an understanding of their roles/responsibilities, participated in administrative/leadership projects or activities, and evaluated strategic plan changes at the college level. This experience really opened my eyes to many paths that can be taken throughout an academic administrative career. Gaining this understanding enabled me to shape my career goals and develop actionable items to lead to an academic administrative career path in the future.

Faculty Development. The activities included distributing a survey to determine the areas of interest within the college, developing and designing faculty development sessions as part of monthly department meetings, organizing programming related to monthly faculty development sessions, designing Observed Structured Teaching Evaluation (OSTE) in a simulated environment, and collecting feedback related to faculty development sessions. This experience was especially rewarding because I came to know the faculty needs and interests through the development of faculty specific programming throughout my residency year.

Instructional Design and Delivery. As a course director for a new pharmacy elective that was open to second and third professional year students, I designed and implemented course materials as well as designed simulated activities to assess students' skills. This elective course focused on evidence-based medicine skills. This small group (16 students enrolled) setting for this elective class afforded a great opportunity to build relationships with students and work one-on-one with them.

Action Steps to Further Your Career

- *Determine if academia is for you.* Expose yourself to academic opportunities, including teaching, scholarship, and service. Some ways to go about this are:
 - o Participating in an academic IPPE or APPE experiential rotation.
 - o Volunteering for teaching opportunities—didactic lectures, assisting in laboratory activities, tutoring
 - o Informally precepting students while on rotation
 - o Seeking research opportunities through faculty members or research electives if possible
 - o Seeking writing opportunities through organizational involvement, school publication involvement, or other less formal venues (blogging, etc.)
 - o Seeking participation on college, school, or university committees
 - o Becoming involved in professional organizations and student-led organizations
 - o Seeking out community service opportunities

- *Get involved in professional organizations related to academia.* One great organization that I've been fortunate to be involved with is the American Association of Colleges of Pharmacy (AACCP). This is a great way to network and learn more about academic careers and innovative teaching pedagogies.
- *Read about academia.* There are several journals devoted to teaching and learning. Some that immediately come to mind related to pharmacy education are the *American Journal of Pharmacy Education (AJPE)* and *Currents in Pharmacy Teaching and Learning*.
- *Realize that teaching will be part of your career.* Regardless of the choice you make when you enter the profession of pharmacy, teaching will be an essential skill that you will utilize as a pharmacist irrespective of your area of practice. You will teach other pharmacists, healthcare providers, patients, students (possibly), and perhaps even non-healthcare related individuals. Accordingly, to what degree you want teaching and learning to be a part of your career is up to you. The more you are motivated by lifelong learning, the more I believe academia is an excellent path to consider.

SUMMARY

Academia is an area of pharmacy that offers variety and opportunity. Pharmacists can participate in the world of academia in many ways. Academia roles offer a range of possible teaching activities, including precepting students or residents, teaching in pharmacy or other health profession curriculum, participating in college activities, contributing to professional organizations and literature, and learning about new teaching pedagogies as a part of professional development.

Training and education related to academia is not yet well-defined in pharmacy practice. Many students and residents who are interested in this field should actively seek out teaching opportunities and find mentors who can advise the best activities and organizations to get involved in. In academia, you must pursue lifelong learning, possess the desire to help others grow and contribute to patient care, and be willing to provide service in various areas of your professional life.

The stories found in this eReport provide a few examples of how different practitioners have built their careers in academia. Depending on their perspective, you might find that careers in academia can vary widely. It will be up to you to decide to what extent academia will be part of your career. All of these pharmacists have one common purpose in writing this eReport: to provide an authentic account of their daily activities and practical advice for you to consider when evaluating this career path.

RESOURCES AND ORGANIZATIONS

Activities and Resources

The following activities and resources are recommended if you are interested in entering a career in academia:

- Attending conferences such as the Annual Meeting of American Association of Colleges of Pharmacy (AACCP) that are focused on teaching and learning (<http://www.aacp.org/meetingsandevents/AM/Pages/default.aspx>)
 - o For students and residents, the Walmart Scholars Program pairs students and residents with a faculty mentor to further exposure and skills to a career in academic pharmacy at the AACCP Annual Meeting to help develop the skills needed to become an academic pharmacist. (<http://www.aacp.org/career/grants/pages/walmart.aspx>).
 - o The American College of Clinical Pharmacy (ACCP) has a specific Practice and Research Network for clinicians working in Education and Training. This group creates programming at each Annual Meeting specifically for pharmacists in academia. In addition to the network, the ACCP Academy is a certificate program that offers curricula in teaching, research, leadership, and practice development—all important aspects of a career in academia.

- o ACCP's *The Clinical Faculty Survival Guide* contains a multitude of tips and ideas to balance academia and clinical practice for those interested in and those just starting a career.
- Attending the Lilly Conferences on College and University Teaching and Learning (<http://lillyconferences.com/>) that are held at different locations throughout the year.
- Participating in a teaching elective and/or rotation—if students interested in academia have the opportunity to participate in a teaching elective and/or a teaching introductory (IPPE) or advanced pharmacy practice experience (APPE), it is highly recommended to learn more about the teaching and learning environment. In this type of experience, students can be exposed to fundamental concepts related to teaching and learning and can better identify if this is an area of interest. Additionally, students that are seeking residency training should be looking for a residency program with a strong teaching certificate program that offers a wide variety of experiences including teaching and learning seminars, small and large group teaching, opportunities to receive feedback, and others.
- Staying up-to-date on the teaching and learning literature in journals such as the *American Journal of Pharmaceutical Education (AJPE)* and *Currents in Pharmacy Teaching and Learning*.

Organizations

- American Association of Colleges of Pharmacy—www.aacp.org
- American College of Clinical Pharmacy—<http://www.accp.com/academy/index.aspx>
- American Society of Health-System Pharmacists—<http://www.ashp.org/menu/MemberCenter/SectionsForums/SICP/Resources/ASHPPreceptorsToolKit.aspx>

Additional Reading

- Zgarrick DP. *Getting Started as a Pharmacy Faculty Member*. Washington, DC: American Pharmacists Association; 2010.
- Brooks AD. Considering academic pharmacy as a career: opportunities and resources for students, residents, and fellows. *Currents in Pharmacy Teaching and Learning*. 2009;1:2-9.
- Boice R. *Advice for New Faculty Members: Nihil Nimus*. Needham Heights, MA: Allyn & Bacon; 2000.