

AMERICAN  
PHARMACY  
EDUCATOR  
WEEK

October 25–31, 2009

SHAPE THE FUTURE OF TOMORROW'S  
HEALTHCARE...TODAY.

BECOME A PHARMACY EDUCATOR!

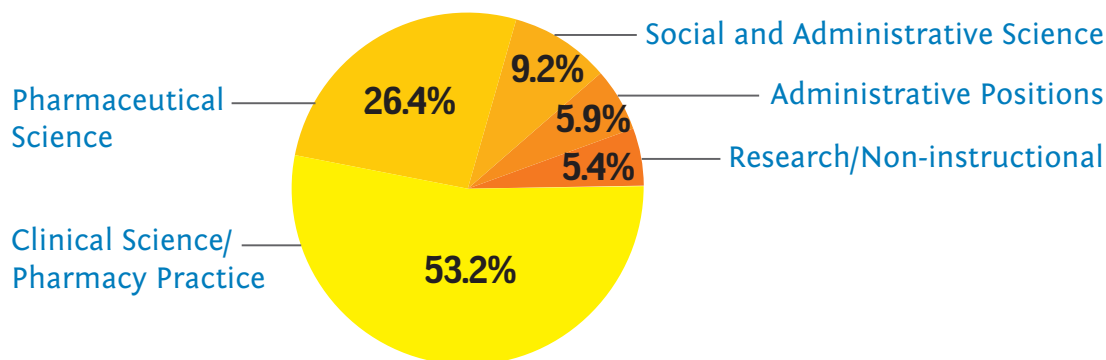
# FAST FACTS ABOUT THE ACADEMY

## INSTITUTIONS AND PROGRAMS

- As of June 1, 2009, there are **102** colleges and schools of pharmacy with accredited (full or candidate status) professional degree programs and **10** schools with precandidate status.
- The number of colleges and schools of pharmacy has risen from 89 in 2004 to 112 in June 2009, a **25.8 percent increase** over the past five years.
- Forty (40) of the schools with full or candidate status are private institutions and sixty-two (62) are publicly supported universities.

## DEMAND FOR QUALIFIED FACULTY\*

- Ninety-three (93) colleges and schools of pharmacy reported a total of 425 vacant and/or lost positions in 2007–08. Eighty of the 93 schools reported 375 vacant non-shared positions, which are positions that are not shared among university departments or practice sites. Twenty schools reported 39 vacant shared positions and nine schools reported 11 lost positions.
- Of the 425 vacant and lost positions:



- Over 47 percent of the vacant positions remained vacant because there were not enough qualified candidates in the pool, a significant increase from 37.4 percent in 2006–07.

\*AACP Research Brief Volume 9: Vacant Budgeted and Lost Faculty Positions—Academic Year 2007–08

# WHY PHARMACY EDUCATION?

**Do you have a passion for learning, inspiring others and impacting patient care? If so, consider a career in pharmacy education.**

The demand for well-qualified pharmacy faculty of diverse backgrounds and experiences is greater than ever. The benefits and advantages of entering academia are plentiful. Pharmacy educators contribute to scientific and clinical knowledge, collaborate with other professionals and improve the learning experience of future pharmacists.

## PURSUIT OF KNOWLEDGE

“Pharmacy academia provides the opportunity for continuous learning, innovation and involvement in a variety of areas such as teaching, scholarship and service. You are able to influence pharmacy practice by teaching the latest innovative skills to your students and shaping their professional development.”

*Magaly Rodriguez de Bittner, Professor and Chairperson, University of Maryland School of Pharmacy*

## CREATIVITY

“I love pharmacy education because it is fun and invigorating. There are so many emerging fields of science and research that are impacting what we teach and how we teach. Also, there are numerous opportunities for innovation as we seek to prepare graduates for contemporary practice. I also enjoy being in a field that prepares graduates to pursue many diverse interests including advocacy, association leadership, business and research.”

*Barbara E. Hayes, Dean, Texas Southern University College of Pharmacy and Health Sciences*

## SHARING YOUR PASSION

“Every day I take potentially difficult material and make it exciting for students and patients. I also format information to help students relay it to patients and make them feel good about their healthcare choices. I truly believe everything I do is about people. I think being a pharmacist and an educator is the stage through which I can affect the lives of others.”

*Stephen H. Fuller, Associate Professor, Campbell University School of Pharmacy*

## MENTORSHIP

“I believe that I am helping create human potential. Every day we increase the potential of our students who will graduate, take care of their patients, and in turn, patients with better quality of lives will increase the potential of society.”

*Gireesh V. Gupchup, Associate Dean, Southern Illinois University Edwardsville School of Pharmacy*

# DISCOVERIES IN PHARMACY EDUCATION

## SHHH! THE POLYSACCHARIDES ARE

### LISTENING

Former University of Iowa pharmacy faculty member Dr. Robert J. Linhardt pioneered research efforts on complex polysaccharides, such as heparin, determining that they are capable of carrying information. Dr. Linhardt's research on heparin-like compounds resulted in a new class of therapeutic short-acting heparin analogs.

## OCEAN REVEALS ITS LIFE SAVING SECRETS

University of Florida researchers, led by Dr. Hendrik Luesch, have found a compound in bacteria living on coral reefs that activates the gene that suppresses tumor growth. The history of pharmacy traces its roots back thousands of years to plants growing on Earth's continents, many of which were used by ancient civilizations for medicinal purposes. Yet only in the past 30 years have scientists begun to explore the organisms in Earth's oceans.



## A SECOND CHANCE AT LIFE IMPROVED

### WITH TACROLIMUS

Successful organ transplants could not be possible without the work of pharmacy educator Dr. Raman Venkataramanan and colleagues at the University of Pittsburgh. Interprofessional collaboration helped define the dosage, dosage form and therapeutic guidelines for the approval of tacrolimus, the drug that allowed the successful transplantation of the liver and other organs.

## RIGHT DOSE REDUCES INFANT MORTALITY

Public health measures such as infant mortality are used as global comparators of health. In spite of being a developed country, the United States suffers with nearly a 10 percent incidence of pre-term birth and associated complications. University of Pittsburgh pharmacy faculty members are involved in understanding the mechanism and optimizing the dose of 17-hydroxy progesterone caproate, the only agent that appears to show some promise in the prevention of pre-term labor.

## DELICIOUS DAIRY

Think pharmacy education the next time you enjoy dairy products. Why? Because Professor Emeritus James Ayres, along with researchers in the Department of Microbiology at Oregon State University, patented a process used throughout the food industry in the production of cottage cheese, yogurt, salad dressing and many other refrigerated foods, making them last longer and taste better. YUM!



## BEING A CADD ISN'T ALWAYS BAD

Drug development has been facilitated by the establishment of the Computer-aided Drug Design (CADD) Center at the University of Maryland. Dr. Alexander MacKerell Jr., noted pharmacy educator, focuses on interdisciplinary research projects with a goal of discovery and development of new drug entities. These collaborative efforts have led to the filing of more than 10 patents and one licensing agreement to date.

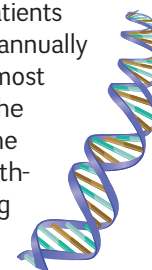
## GLAUCOMA, YOUR TIME IS RUNNING OUT

Glaucoma, a debilitating eye condition, may be well on its way to being eradicated because of the work of another pharmacy educator. The research of Dr. Pradeep K. Karla at Howard University has helped improve the understanding of the molecular and functional existence of efflux pumps, which may improve the efficiency of ocular drug delivery formulations and strategies in the future.

## PHARMACY FACULTY RESEARCH LEADS

### TO NIH INITIATIVE

Dr. Julie A. Johnson, renowned pharmacy educator at the University of Florida, and her team developed a way to use information about a patient's genetic makeup to determine optimal doses of the anti-coagulant warfarin. An estimated 2 million new patients with heart conditions begin treatment annually in the U.S., making warfarin one of the most widely prescribed drugs in the world. The findings of this team are the basis for the NIH launching clinical trials to test whether a gene-based strategy for prescribing the initial warfarin dose will improve patient outcomes.



# CAREER OPPORTUNITIES IN PHARMACY EDUCATION

**Perhaps no other career in pharmacy has the potential to make such far-reaching contributions to the profession than educators. It is within academia that one can excite individuals about pharmacy and lay the groundwork for continuing advances in science and education.**

More than 5,500 full-time faculty members work in our nation's colleges and schools of pharmacy. They are involved with teaching, research, public service and patient care. Many serve as consultants to local, state, national and international organizations and agencies. Each educator makes unique contributions to pharmacy education and the profession. Disciplines within academic pharmacy include social and administrative sciences, biological sciences, pharmacy practice and clinical sciences, continuing education, experiential education, pharmaceuticals, medicinal/natural products chemistry, and pharmacology.

## COMMON CHARACTERISTICS

### AMONGST PHARMACY FACULTY:

- They are experts in their fields
- They teach pharmacy students
- They engage in scholarly work and research
- They publish their work
- They participate in service activities

## DIFFERENCES AMONGST

### PHARMACY FACULTY:

- Classroom and laboratory vs. practice setting instruction
- Type and length of education and training required (e.g., Pharm.D., Ph.D., residency/fellowships)
- Patient care responsibilities
- Educating and supervising residents/fellows vs. graduate students
- Research interests

## TYPES OF PHARMACY FACULTY

### Pharmaceutical Sciences Faculty

Pharmaceutical sciences faculty perform research in all aspects of the drug discovery and development process, as well as teach graduate and professional pharmacy students. Pharmaceutical scientists perform research that includes sophisticated instrumentation, analytical methodology and procedures on animal and human subjects to study drug products.

### Pharmacy Practice Faculty/Clinical Scientists

Pharmacy practice faculty have significant responsibility for patient care in addition to their work in teaching and research. These academicians are called upon to be educators, practitioners and clinical scientists. They serve as role models for pharmacy students and residents in many education, practice and research settings. In their role as clinical scientists, these faculty are often involved in research with human subjects.

### Social, Economic, Behavioral and Administrative Pharmacy Faculty

Social, economic, behavioral and administrative pharmacy faculty are concerned with matters pertaining to people, health-care and pharmacy services (distributive and clinical) in professional, institutional, business, social and other consumer-oriented environments. These faculty members teach professional and graduate students, and perform research. Research training is in economics, epidemiology, social, psychological and cultural aspects of medication use and health policy.

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Colleges of Pharmacy **AACP**  
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