# FIND OUT HOWGOOD YOU REALLY ARE.

GRADUATE PROGRAMS:
DRUG REGULATORY AFFAIRS
PHARMACEUTICS
PHARMACOLOGY/TOXICOLOGY
PHARMACY/SPECIALIZATION IN
PHARMACEUTICS
PHARMACY ADMINISTRATION



**LIU Pharmacy** 

Arnold & Marie Schwartz College of Pharmacy and Health Sciences

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The Arnold & Marie Schwartz College of Pharmacy and Health Sciences, the oldest unit of LIU, was established in 1886 as the "Brooklyn College of Pharmacy" by the Kings County Pharmaceutical Society. In 2011, the College celebrated 125 years of service to the state and the nation, having educated more than 20,000 undergraduate and graduate pharmacy students. In fact, one of every four pharmacists in New York State is a graduate of the College.

LIU Pharmacy offers graduate programs leading to the Doctor of Philosophy (Ph.D.) in Pharmaceutics and the Master of Science (M.S.) degree in the following fields: Pharmaceutics (with specializations in Industrial Pharmacy and Cosmetic Science); Pharmacology/Toxicology; Pharmacy Administration; and Drug Regulatory Affairs.

The graduate programs are designed to instill in students the specialized knowledge and skills and provide the relevant experience they need to succeed. Students are prepared for demanding but rewarding careers in the pharmaceutical, biotechnology and cosmetic industries; related support areas, such as independent research and development laboratories; advertising agencies and consulting firms; governmental regulatory and scientific agencies; and academic institutions. Students who pursue the Ph.D. or the thesis option in the M.S. programs will further advance their capability to conduct research in their chosen field of study.

Below is a list of the graduate programs in LIU Pharmacy. For more information, contact **gradadmissions@brooklyn.liu.edu** or visit **liu.edu/brooklyn/pharmacy**.

#### Ph.D. in Pharmaceutics

The Ph.D. in Pharmaceutics is designed to prepare students to meet the challenges and the current and future needs of researchers engaged in the pharmaceutical sciences and drug development process. This program offers a blend of didactic and elective courses in the basic material sciences and mathematics, drug delivery, biopharmaceutics/pharmacokinetics and other areas related to academic and industrial research. After completing a broad-based core of fundamental courses, all students are required to perform original research in a specialized area, culminating in a dissertation. The program is designed so Ph.D. students have considerable flexibility in selecting areas of research for the Ph.D. project. The curriculum includes required prior coursework in organic chemistry, physiology, pharmacology, calculus and differential equations. Students who lack these prerequisites will be required to take the appropriate courses before starting the doctoral program.

#### M.S. Programs

All of the Master of Science programs in the College allow students to pursue either thesis or non-thesis tracks. Each program offers considerable flexibility in study through numerous elective course offerings.

#### Drug Regulatory Affairs (M.S.)

This program prepares students to face the unique challenges and complexities of the regulatory and legal environment associated with the research, development, production, distribution and promotion of pharmaceutical products. Career opportunities for people with this specialized knowledge are expanding in the pharmaceutical and biotechnology industries, consultancies and governmental regulatory agencies.

# Pharmaceutics (M.S.) with specialization in Industrial Pharmacy

The mission of this program is to prepare students for entry-level positions in the pharmaceutical industry and for entry into Ph.D. programs in the pharmaceutical sciences and related fields. Graduates are highly sought after by the global pharmaceutical industry to support research, development and manufacturing operations in such areas as product formulation and design, quality assurance and scale-up for production.

# Pharmaceutics (M.S.) with specialization in Cosmetic Science

This program prepares students with the knowledge and skills to enter the cosmetics, toiletries and fragrance industries. The program is designed for technologically inclined individuals with an interest in supporting research, development, product safety, quality assurance and manufacturing operations in the production of personal care and aesthetic enhancement products.

#### Pharmacology/Toxicology (M.S.)

Students in this program earn the requisites for career opportunities with pharmaceutical companies, governmental laboratories and agencies as well as for further study at the doctoral level in related areas. The program focuses on the effects of drugs on physiology (pharmacodynamics) and the effects of physiology on drugs (pharmacokinetics), along with the adverse effects of drugs and chemicals (toxicology).

#### Pharmacy Administration (M.S.)

The pharmaceutical and health-care industries face continuing pressure to deliver economically efficient products and services amid increasing societal demands and expectations. Students in this program develop the abilities to apply the administrative, managerial and social sciences to successfully address the special challenges associated with the marketing, provision and selling of pharmaceutical and related products.



#### VICKIE FERDINAND-POWELL

M.S. in Pharmacy Administration Class of 1993 Site Director of Pharmacy, Columbia University Medical Center, New York-Presbyterian, the University Hospital of Columbia and Weill-Cornell Medical College

Originally from New Orleans, Vickie Ferdinand-Powell was fascinated by science at an early age. She attended a high school for gifted children and decided to pursue a career in pharmacy. She earned a B.S. in pharmacy from Xavier University and worked first as a registered pharmacist at the Lenox Terrace Drug Store in Manhattan and later as a pharmacist at St. Luke's-Roosevelt Hospital Center. There, she met College of Pharmacy alumnus Harvey E. Maldow '67, '72 (M.S.), who became her supervisor. He promoted her to inpatient pharmacy supervisor and encouraged her to continue

her education. She enrolled in LIU Pharmacy while working and raising her family.

Since 2001, she has been site director of pharmacy at Columbia University Medical Center, New York-Presbyterian, the University Hospital of Columbia and Weill-Cornell Medical College. She oversees 298 pharmacists, technicians, interns, attendants and other staff members, and has overall responsibility for 1,200 beds and eight outpatient clinics.

She has served as president of the New York State Council of Health-System Pharmacists and is a member of the LIU Pharmacy's Alumni Association Board of Directors. Her many honors have included the 2009 Distinguished Alumni Award from LIU Pharmacy, the Professional Award from the National Association of Business and Professional Women and the Joel Yellin Award of Merit from the New York City Society of Health-System Pharmacists.



RUTESH DAVE B.Pharm., Ph.D. Assistant Professor

After earning his bachelor's degree in pharmacy in India, **Rutesh Dave** came to Brooklyn to earn his Ph.D. at LIU Brooklyn. He serves as program adviser for the College's M.S. and Ph.D. programs in pharmaceutics and runs a research lab, where he teaches his students about development of new technologies and

"I believe in making concepts clearer and letting students apply these concepts in real-life scenarios."

methodologies. He also has formed an advisory committee comprising leading scientists from major pharmaceutical companies to further

strengthen the College's graduate programs. Before joining the faculty, he was senior scientist at Par Pharmaceuticals and group leader at SigmaPharm laboratories. "As a professor, I believe in teaching students the fundamentals of pharmaceutics at the professional and graduate level by making concepts clearer and letting students apply these concepts in real-life scenarios," he says.

## Highlights:

- Students are trained by dedicated faculty who are leaders in their respective fields.
- The College provides graduate student assistantships in all of its programs.
- Graduate students have the opportunity to conduct cuttingedge research in such areas as drug formulation development, pharmacokinetics, pharmaceutical engineering, cellular pharmacology and drug transport.
- Internship opportunities are available at leading pharmaceutical companies in New York and New Jersey.

With a degree from LIU Pharmacy, you'll join an illustrious alumni network that includes:

- Malaz AbuTarif (Ph.D. '03), Director of Clinical Pharmacology, Bristol-Myers Squibb
- Vickie Ferdinand-Powell
   (M.S. '93), Site Director of
   Pharmacy, Columbia
   University Medical
   Center, New York Presbyterian, the
   University Hospital of
   Columbia and Weill Cornell Medical College
- Muhammed Majeed
   (M.S. '80), Founder and
   Managing Director,
   Sami Laboratories Ltd.,
   a global manufacturer
   of integrated medicine
   products

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#### **Graduate Application Requirements**

- Apply online at liu.edu/brooklyn/apply
- \$40 application fee
- Official transcripts from all colleges and universities attended
- Personal statement/statement of professional goals
- Resume/Curriculum vitae
- Three letters of recommendation
- General test required for all programs
- TOEFL or IELTS score (for applicants whose native language is not English)

**Deadlines:** All graduate programs are available every semester and operate on a rolling admissions basis, with applications accepted as long as space is available. However, early submission of application is strongly encouraged.

Please send application materials and credential cover sheet to:

LIU Brooklyn Admissions Processing Center P.O. Box 810 Randolph, MA 02368-0810

International Applicants: Please send application materials and credential cover sheet to:

LIU Brooklyn Office of Admissions 1 University Plaza Brooklyn, N.Y. 11201-5372

#### **490 FULTON**

#### Brooklyn's Only All-Graduate Housing

LIU Brooklyn offers graduate students, apartment-style housing at 490 Fulton Street located just 2 blocks from campus. Graduate students are eligible to stay in brand new studio and one-bedroom apartments or enjoy private suite like bedroom accommodations in the building's fully furnished two, three, four, five and six-bedroom apartments units. Located in the heart of Downtown Brooklyn and just minutes away from New York City; the apartments are conveniently located in a vibrant retail center within close proximity to Brooklyn's art and entertainment districts.

# Why LIU Brooklyn?

- ▲ Graduate Education Tailored to Suit Your Needs
  - ▲ Flexible Course Schedules
  - ▲ Small Classes & Personalized Advising
- Outstanding Career Services & Distinguished Alumni Network
  - ▲ Close-Knit Community with Big-City Benefits

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College of Pharmacy Dean's Office (718) 488-1004 • brooklyn.liu.edu/pharmacy

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