URI College of Pharmacy

Department of Pharmacy Practice
Department of Biomedical and Pharmaceutical Sciences
Improving Health Care in the U.S.

• Health disparities across the U.S.
  – Priority populations
  – Urgent attention needed
• Culturally competent care
  – Process of developing cultural competence
• Need for minority health care providers
• Patient-centered care, interdisciplinary teams
The Pharmacist

• Expert in the application and usage of pharmaceuticals, including the formulation, compounding, storage, and dispensing of medications

  — Pharmaceutical Care:
  • Optimal drug therapy for patients
  • Drug interactions & potential side effects
  • Treatment guidelines for medical conditions
  • Education and promotion of public health

❖ Community Pharmacy
❖ Hospital Pharmacy
❖ Specialty Pharmacy
Future of Pharmacy (Emerging Roles)

• Primary and preventive care:
  – Immunizations
  – Medication Therapy Management (MTM)
    • Adherence and compliance
  – Asthma Educators
  – Diabetes Educators
  – Health literacy
Resources for High School Students

• Websites:
  – Pharmacy is Right for Me
    • [http://pharmacyforme.org/](http://pharmacyforme.org/)
    • Provides pharmacy career profiles, information about financial support, internships
  – American Association of Colleges of Pharmacy
    • [http://www.aacp.org](http://www.aacp.org)
      – Resources-> Student Center
  – The University of Rhode Island -College of Pharmacy
    • [http://www.uri.edu/pharmacy/](http://www.uri.edu/pharmacy/)
Career/Research Opportunities
(Doctor of Pharmacy)

- Residencies: specialized pharmacy education
- Specialty certifications: e.g. oncology, infectious diseases
- Pharmaceutical Companies: R&D, clinical trials, and drug approval departments
- Government agencies: FDA and military
- Pharmacoeconomics and managed care: MBA
- Drug Information, medical, and scientific publishing
- Academia: clinical and research (MS and PhD)
B.S. in Pharmaceutical Sciences
What is/are Pharmaceutical Sciences?

- Drug Discovery
- Drug Development
- Biomedical Sciences
  - Medicine
  - Physiology, pathology
  - Pharmacology
  - Molecular & Cellular Biology
  - Automation, robotics, engineering
  - Medicinal chemistry, analytical chemistry, biochemistry
  - Human Biology, Structural Biology, Chemical Biology
  - Informatics, Bioinformatics
  - Economics, efficacy
BS, MS, PhD
Pharm Sciences

• Discover, develop, research, manufacture and test new medications
• New medications
  – Creating new medicines requires a large team of scientists with training in many different scientific disciplines, including chemistry, biology, bioinformatics and genetics
• http://explorehealthcareers.org/en/Career/144/Pharmaceutical_Scientist

PharmD,
Licensed pharmacist

• Medication experts
• Dispense and educate patients about existing medicines
• Interact with patients and health professionals
• Advise on selection, dosages, interactions, side-effects of medications
• Research best use of medications
• http://explorehealthcareers.org/en/Career/14/Pharmacist
Specialties here at URI, continued

- Programs: Pharmaceutical Sciences Graduate Program
  - Medicinal Chemistry & Pharmacognosy
  - Pharmaceutics and Pharmacokinetics
  - Pharmacoepidemiology & Pharmacoeconomics
  - Pharmacology & Toxicology
Research/Career Opportunities

• Many pharmaceutical scientists begin working in the field after college, and then go on to complete advanced degrees in more specialized subjects.

• Pharmaceutical companies often pay for talented workers to complete graduate and postgraduate degrees such as Masters of Science (M.S.), Doctor of Medicine (M.D.), Doctor of Pharmacy (Pharm.D.) or Doctor of Philosophy (Ph.D.), to help them qualify for advancement.
A Network of Six Participating RI Institutions

The network has the objective to support and develop talented individuals, committed to research careers in Rhode Island, and to build the biomedical research capacity of Rhode Island.
Virtual Tour
RI-INBRE Centralized Research Core Facility

Video by: Matthew DeAngelis
Student Perspective

- About myself
- Educational Talent Search/ Talent Development
- Experience first 2 years
- Professional school
- Student organizations
- Scholarships/opportunities
- General advice before coming to college/pharmacy school