PHARMACY DOMAIN

*Pharmacy is the science and technique of preparing and dispensing drugs. * It is a health profession that links health sciences with chemical sciences and aims to ensure the safe and effective use of pharmaceutical drugs. *The scope of pharmacy practice includes more traditional roles such as compounding and dispensing medications, and it also includes more modern services related to health care, including clinical services, reviewing medications for safety and efficacy, and providing drug information. *Pharmacists, therefore, are the experts on drug therapy and are the primary health professionals who optimize use of medication for the benefit of the patients. *An establishment in which pharmacy (in the first sense) is practiced is called a pharmacy (this term is more common in the United States) or a chemist's (which is more common in Great Britain). In the United States and Canada, drugstores commonly sell medicines, as well as miscellaneous items such as confectionery, cosmetics, office supplies, toys, hair care products and magazines and occasionally refreshments and groceries. *In its investigation of herbal and chemical ingredients, the work of the pharma may be regarded as a precursor of the modern sciences of chemistry and pharmacology, prior to the formulation of the scientific method. Pharmaceutical sciences

● Pharmacology: the study of the biochemical and physiological effects of drugs on human beings. ○ Pharmacodynamics: the study of the cellular and molecular interactions of drugs with their receptors. Simply "What the drug does to the body ○ Pharmacokinetics: the study of the factors that control the concentration of drug at various sites in the body. Simply "What the body does to the drug" ○ Pharmaceutical toxicology: the study of the harmful or toxic effects of drugs.

Pharmacogenomics: the study of the inheritance of characteristic patterns of interaction between drugs and organisms ● Pharmaceutical chemistry: the study of drug design to optimize pharmacokinetics and

pharmacodynamics, and synthesis of new drug molecules (Medicinal Chemistry). ● Pharmaceutics: the study and design of drug formulation for optimum delivery, stability, pharmacokinetics, and patient acceptance] ● Pharmacognosy: the study of medicines derived from natural sources

Practice Areas of Pharmacy

- Community pharmacy
- Hospital pharmacy
- Clinical pharmacy
- Ambulatory care pharmacy
- Compounding pharmacy
- Nuclear pharmacy
- Military pharmacy
- Pharmacy informatics
- Specialty pharmacy

1) Community Pharmacy - Community pharmacies consist of a retail storefront with a dispensary where medications are stored and dispensed. In most countries, the dispensary is subject to pharmacy legislation; with requirements for storage conditions, compulsory texts, equipment, etc., specified in legislation.

2) Hospital Pharmacy - Hospital pharmacies have more complex clinical medication management issues. Hospital Pharmacy have more complex business and customer relations issues. pharmacists practicing in hospitals gain more education and training.

3) Clinical pharmacy - Clinical pharmacists care for patients in all health care settings, but the clinical pharmacy movement initially began inside hospitals and clinics. The clinical pharmacist's role involves creating a comprehensive drug therapy plan for patient-specific problems, identifying goals of therapy, and reviewing all prescribed medications prior to dispensing and administration to

the patient. The review process often involves an evaluation of the appropriateness of the drug therapy.

4) Ambulatory care pharmacy - Pharmacists in this setting do not dispense drugs, but rather see patients in office visits to manage chronic disease states.

5) Compounding Pharmacy- Compounding is the practice of preparing drugs in new forms. For example, if a drug manufacturer only provides a drug as a tablet, a compounding pharmacist might make a medicated lollipop that contains the drug.

6) Nuclear Pharmacy - Nuclear pharmacy focuses on preparing radioactive materials for diagnostic tests and for treating certain diseases. Nuclear pharmacists undergo additional training specific to handling radioactive materials.

7) Military Pharmacy - Military pharmacy is an entirely different working environment due to the fact that technicians perform most duties that in a civilian sector would be illegal

8) Specialty Pharmacies- Specialty pharmacies supply high cost injectable, oral, infused, or inhaled medications that are used for chronic and complex disease states such as cancer, hepatitis

Domain Name : Pharmacy

Introduction: Pharmacy is the science and technique of preparing and dispensing drugs. It is a health profession that links health sciences with chemical sciences and aims to ensure the safe and effective use of pharmaceutical drugs.

History : The history of pharmacy as an independent science dates back to the first third of the 19th century. Before then, pharmacy evolved from antiquity as a part of medicine.

The word pharmacy is derived from Old French farmacie "substance, such as a food or in the form of a medicine which has a laxative effect"

Mahadeva Lal Schroff is considered as the father of Indian Pharmacy for his contribution to the field of pharmacy. He was the one who introduced 3 year course in Pharmacy in Banaras Hindu University for the first time.

Domain Growth: The global pharmaceutical industry reached unprecedented heights in 2017, being estimated at an astounding $1.11 trillion. By 2020, this figure is set to rise to $1.43 trillion.

Although the USA’s market share of the global pharmaceutical industry is over 45%, the Chinese, South East Asian, Eastern European and South American markets are beginning to emerge.

Top 2 Pharmaceutical Companies: 1. Pfizer Headquartered in Connecticut, USA Research-based company has a varied portfolio that spans many therapy areas, including immunology, oncology, neurosciences and rare diseases Pfizer’s key products, including Ibrance,Eliquis and Xeljanz.

2. Roche Headquartered in Bazel, Switzerland The company develops innovative drugs and devices in a number of key

indications, such as oncology, immunology, infectious diseases and neuroscience Top 3 cancer drug seller