**WHAT IS PHARMACOLOGY?**

Pharmacology is the science of drugs and their effect on living systems. It covers the principles of pharmacology and how drugs interact with the body at a molecular level. It helps in understanding how drugs work and how they affect the body. Pharmacologists work in various fields, including hospitals, clinics, and laboratories, to develop new drugs and improve existing ones.

**WHAT IS A DRUG?**

A drug is any chemical substance that changes normal body functions. A drug can be a medicine, a drug of abuse, or a poison. It is the science of what is happening to that drug and to your body. If you're put under, using an inhaler, having a drink or taking an aspirin, pharmacology is at work. If you're taking a pill, pharmacology is at work. It's the science of medicines and the study of how they interact with the body.

**DRUG HISTORY**

- **600s BCE**: Herbs are already being used for medicinal purposes.
- **1600s**: Penicillin is discovered, mark the beginning of modern medicine.
- **1800s**: Synthetic drugs are developed, the first antibiotic, penicillin, is isolated from the fungus Penicillium notatum.
- **1900s**: Aspirin is introduced, and the use of antibiotics becomes widespread.
- **2000s**: Many drugs are developed to treat diseases like HIV/AIDS, cancer, and diabetes.

**AND BEYOND?**

- **2000s**: Nanotechnology is developed to create smaller and more effective drugs.
- **2020s**: CRISPR technology is used to edit the human genome, leading to new treatments for genetic diseases.

**WHAT DOES A PHARMACOLOGIST DO?**

A pharmacologist can work in a variety of settings, such as hospitals, clinics, laboratories, and pharmaceutical companies. They may conduct research, develop new drugs, or evaluate existing ones. They may also work in government agencies, such as the Food and Drug Administration (FDA), to ensure the safety and efficacy of new drugs.

**WANT TO FIND OUT MORE?**

Visit the British Pharmacological Society (BPS) website for more information on a career in pharmacology, how to become a pharmacologist, and upcoming events. You can also email them at education@bps.ac.uk.

**The British Pharmacological Society**

The British Pharmacological Society (BPS) is a professional organization for pharmacologists and others interested in pharmacology. The BPS promotes the science of pharmacology and its application in medicine, commerce, and the environment. It supports the education and professional development of its members and fosters the exchange of ideas and information among pharmacologists worldwide.
Drugs change the behaviour of our cells. When we need medicine, doctors, nurses, or pharmacists can prescribe a medicine, or we can take it internally, swallowed, inhaled, or even applied to our skin or eyes! Why do drugs come from? One pharmacologist's job doesn't just stop at making a discovery. A pharmacologist sets about changing it for as long as its chemistry permits. Therefore the drug has to be the right 'key' for the lock. There are a lot of different types of cell to be affected and the drug to work. And reveal what once was 'magic' to be a complex chemical choreography between body and drug.

A pharmacologist's job doesn't mean (hair loss). Some drugs make you ill? Surely that's missing the point? Pharmacologists will always try to use alternative testing methods, as long as they produce equally valid results. Pharmacologists will always try to use alternative testing methods, as long as they produce equally valid results.

When doctors talk about the 'pharmacology' of a drug they are essentially talking about its behaviour; how it reacts, how fast it takes effect, how long its effects last. They can shut off pain receptors. Enhance cognitive function, help you learn new "stuff". It can be a complete chemical revolution in the body. Drugs change the nature of our bodies.

A drug acts on receptors, but what is a receptor? A receptor is the part of the cell which recognizes the drug and sets about changing it for as long as its chemistry permits. A receptor is the part of the cell which recognizes the drug and sets about changing it for as long as its chemistry permits.

CONVIA

The young leaves of this pink flower are recognized for its specific effects on reducing and painkilling properties and use to treat headache and hangover. Capsaicin, from chillies, is used in the treatment of certain types of cancer.