

## Societies and administration

The International Union of Basic and Clinical Pharmacology, Federation of European Pharmacological Societies and European Association for Clinical Pharmacology and Therapeutics are organisations representing standardisation and regulation of clinical and scientific pharmacology.

Systems for medical classification of drugs with pharmaceutical codes have been developed. These include the National Drug Code (NDC), administered by Food and Drug Administration;<sup>[1]</sup> Drug Identification Number (DIN), administered by Health Canada under the Food and Drugs Act; Hong Kong Drug Registration, administered by the Pharmaceutical Service of the Department of Health (Hong Kong) and National Pharmaceutical Product Index in South Africa. Hierarchical systems have also been developed, including the Anatomical Therapeutic Chemical Classification System (AT, or ATC/DDD), administered by World Health Organization; Generic Product Identifier (GPI), a hierarchical classification number published by MediSpan and SNOMED, C axis. Ingredients of drugs have been categorised by Unique Ingredient Identifier.

## Education[ ]

*Main article: Medical education*

The study of pharmacology overlaps with biomedical sciences and is the study of the effects of drugs on living organisms. Pharmacological research can lead to new drug discoveries, and promote a better understanding of human physiology. Students of pharmacology must have a detailed working knowledge of aspects in physiology, pathology, and chemistry. They may also require knowledge of plants as sources of pharmacologically-active compounds.<sup>[38]</sup> Modern pharmacology is interdisciplinary and involves biophysical and computational sciences, and analytical chemistry. A pharmacist needs to be well-equipped with knowledge on pharmacology for application in pharmaceutical research or pharmacy practice in hospitals or commercial organisations selling to customers. Pharmacologists, however, usually work in a laboratory undertaking research or development of new products. Pharmacological research is important in academic research (medical and non-medical), private industrial positions, science writing, scientific patents and law, consultation, biotech and pharmaceutical employment, the alcohol industry, food industry, forensics/law enforcement, public health, and environmental/ecological sciences. Pharmacology is often taught to pharmacy and medicine students as part of a Medical School curriculum.