

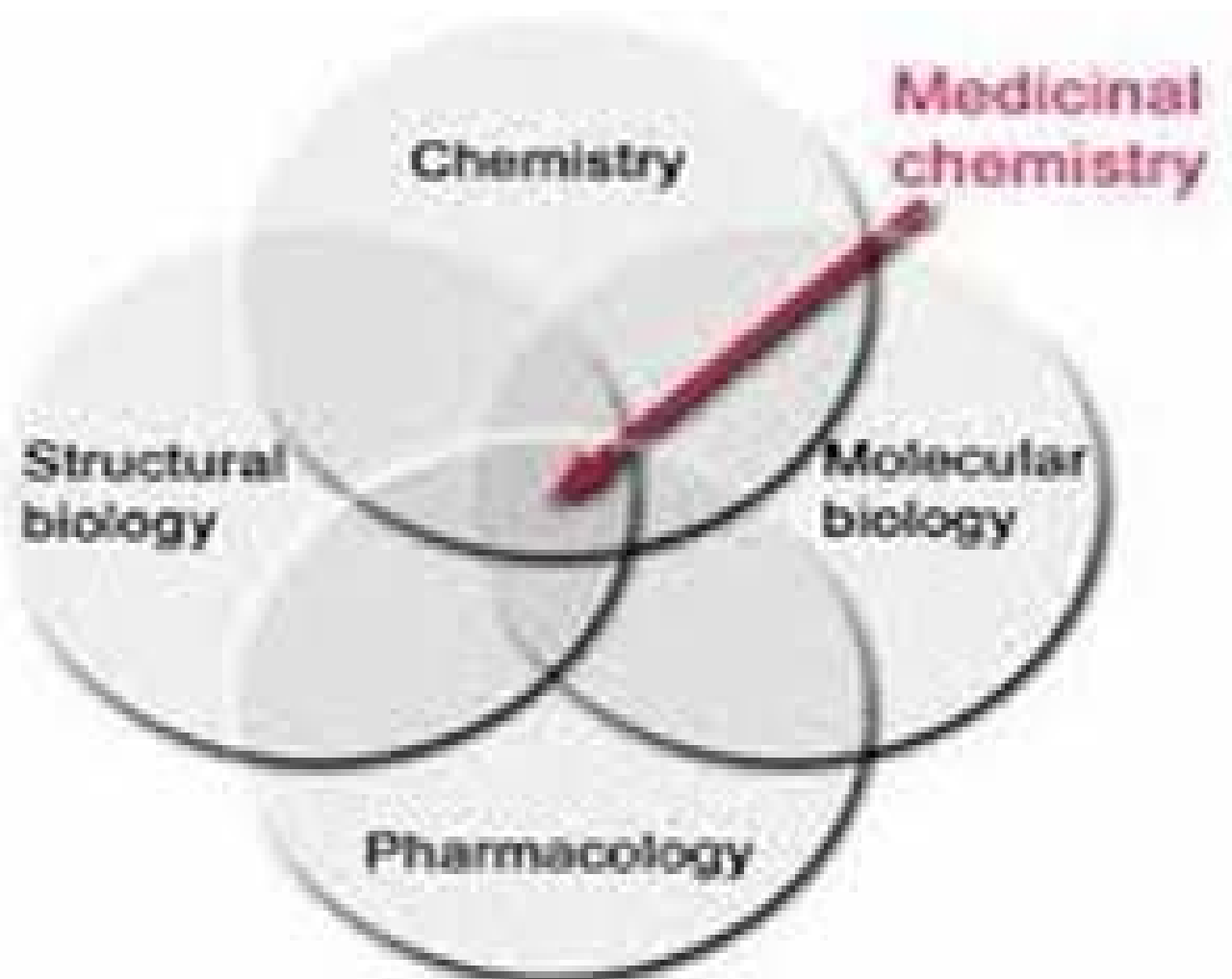
Introduction to medicinal chemistry

Introduction to medicinal chemistry

In the field of science history of Medicinal chemistry comprised of the ideas, knowledge and available tools that have advance contemporary knowledge. Thus medicinal chemistry uses principles of chemistry, physics, biology and pharmaceutical chemistry leading to the invention of lead compounds and lead optimization.

Introduction to medicinal chemistry

Medicinal chemistry and pharmaceutical chemistry are disciplines on the intersection of chemistry, especially synthetic organic and natural chemistry, and pharmacology as well as various biological specialities, where they are involved with design, chemical synthesis and development for market place of pharmaceutical brokers, or bio-active elements. Pharmaceutical chemistry is concentrated on quality areas of medicines and aims in order to guarantee fitness for aim of medicinal products



Bacteriostatic and bactericidal activity

- Antibacterial agent alone or in combination may either inhibit or kill bacteria.

- **Bacteriostatic**

If the growth of bacteria is inhibited or slower down, then it is bacteriostatic activity

- **Bactericidal**

If the microorganisms are completely destroyed by killing them, then it is bactericidal activity.

In vitro and in vivo

- ***in vitro*** means ("within the glass"), susceptibility towards microorganisms formerly not tested and is tested outside the animal body experimentally, , i.e., in a laboratory environment using test tubes, petri dishes, etc.
- ***In vivo*** means the active agent is tested either in animal or human body. Studies that are ***in vivo*** (Latin for "within the living"; are those in which the effects of various biological entities are tested on whole, living organisms or cells, usually animals, including humans, and plants as opposed to a tissue extractor dead organisms.
- Examples of investigations *in vivo* include: the pathogenesis of disease by comparing the effects of bacterial infection with the effects of purified bacterial toxins; the development of antibiotics, antiviral drugs, and new drugs generally; and new surgical procedures.