

CY-514 NATURAL PRODUCT CHEMISTRY

Chemistry of Natural Products: General Introduction with reference to terpenes & steroids, plants sterols, C-28 and C-29 sterols, isolation, structure elucidations, Vit.D, estrogens, cardiac steroids.

Chemistry of Glycosides: Glycosides of flavonoids, coumarines, and saponins: Isolation, detection and chromatographic separation, acid alkaline and enzymatic hydrolysis to aglycons, identification of sugar residue, Spectroscopic determination of aglycone and glycoside structures, derivatization, structural elucidation and biological importance of glycoside.

Biosynthesis of Natural Products: Biosynthesis of fatty acid and triglycerides, isoprenoids, amino acids and alkaloids, metabolites from shikimic acid and metabolites derived from acetates and mevalonate.

Plant Growth Regulators: Naturally occurring plant hormones: Auxins, Gibberellins (Introduction, occurrence, physiological properties, isolation, biosynthesis, synthesis, and structure activity relationship).

Fatty lipids and Prostaglandin (Hydroxy and Ketohydroxy fatty acids):

Identification and extraction, biogenesis and metabolism of prostaglandin, stereochemistry, physical methods of characterization, chemical degradation studies.

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