

Cell to cell communication

The course on cell-to-cell communication and hormone action will cover basic concepts of intracellular communication vital for multicellular organisms. Long-distance tissue communication via hormones will be covered explaining the signal transduction pathways involved in membrane and nuclear hormone receptor action. Additionally, emerging concepts in molecular metabolism and the impact of hormone signaling in the etiology of metabolic disease including diabetes, obesity, and non-alcoholic fatty liver disease will be introduced in this course.

Topics include:

1. Cell to Cell communication (Autocrine, Paracrine, Endocrine)
2. Introduction to Endocrine system
3. Molecular basis of Hormone action (membrane and nuclear receptors)
4. Hormonal regulation of glucose and lipid metabolism
5. Metabolic syndrome and Endocrine defects
6. Novel therapeutics targeting Metabolic syndrome