The homeostasis of organs and tissues requires a complex orchestration of many cell-cell interactions. In addition to provide physiological functions, most tissues exhibit the capacity for the identification, deletion, and replacement of damaged cells. As such, within any specific tissue, equilibrium exists among renewal, differentiation, and cell death. Although the regulatory mechanisms that govern these control points plays an important role in the genesis of cancer. Cancer is a disease that knows no geographic boundaries. In virtually every country of the world, it is a major health problem. Despite decades of basic and clinical research and trials of promising new therapies, cancer remains a major cause of morbidity and mortality. In view of the wide spread documentation’s of the strong anticancer ability of vitamin D₃. The role of vitamin D₃ is still unexplored and obscure in a well-defined chemical carcinogenesis model that could partly mimic human cancers in vivo. Role of vitamin D₃ in transplantable tumors and some human cell lines are well defined and have shown great promise in several clinical and epidemiological surveys worldwide. This work undertakes the interesting approach of understanding the pathophysiology of chemical carcinogenesis and anticancer potential of vitamin D₃. The works embedded have clearly make an indoors in the complicated aspect of carcinogenic process. The essential nutrients limit molecular break in DNA molecule with considerable harmony and in concert. This work in future contribute vitamin D₃ in rationale potential cancer chemoprevention and its documented interaction at the genetic circuit warrants further study may have the broadest implication to the well being of our society.