• Biological Sources of L-DOPA as a drug in neurological disorders

Parkinson’s is a neuron degenerative disease widely affecting a large population across the globe. L dopa is an effective drug for the treatment of Parkinson’s disease which is synthesized chemically but when isolated from different biological sources has preferred advantages over the chemical methods. L-DOPA is found naturally in certain microbes and plant foods, particularly broad beans which found to replenish brain levels of L-DOPA even more quickly, and for longer periods, than conventional medication. The current work in the department is focused on detecting new and novel sources for mining L-dopa from microbial and plant sources. In this direction, potential microbial sources have been obtained and well standardized protocols have been established for the isolation of this drug. Simultaneously, plant sources were also explored and *Mucuna monosperma* (a wild plant) and *Antheum graveolens* (a vegetable) have proved to be an ideal sources for extracting L-dopa in sufficient quantity. A newly discovered species of *M. sanjapee* has been analyzed which has been demonstrated to contain a high level of L-dopa which is presently under scrutiny for its efficacy and other related studies. Development of a drug, based on our results, comprising animal models and other related medical experiments is currently being actively pursued. This work has been supported by DBT, New Delhi.