BioSpectrum the business of Bio & Health Sciences

â€œI am keen to explore the real potential of biotech in Indiaâ€?

07 May 2013 | Views

â€œI am keen to explore the real potential of biotech in Indiaâ€?

Biotechnology is an exploratory course designed to create an awareness of career possibilities in the field of biotechnology. Students are introduced to diagnostic and therapeutic laboratory procedures that support bioscience research and practice.

I want to understand the molecular basis of life. The main objective of taking biotechnology as a major course is that I want to the explore natural resources of my country. Though India is rich in natural diversity and resources, we are not yet able to utilize it in a better way. I want to do research related to endangered species and study the basis of their inheritance. There are lots of plants which have medicinal importance, but their production is very low. If we can do invitro propagation of such plants then we will be able to elicite the medicinal metabolite in huge amount. We can understand the molecular mechanism of production of the metabolites and can engineer the pathway of secondary metabolite production so as to generate the metabolite of our interest in large quantity. Biotechnology gives us to understand the existence of life. Career opportunity in biotechnology is broad. We can do various research and works such as:

â€¢ **Medical biotechnology:** The diagnosis, treatment and prevention of disease have all benefited from the use of biotechnology. Diagnoses of both infectious diseases and genetic disorders have been improved by assays using biotechnology. The development and production of preventative agents, such as vaccines, and medications by animals and microorganisms have been expanded to include antibiotics, anti-toxins and other medicines. New methods of treating diseases are also being explored, such as injecting active genes into individuals to replace the inherited inactive genes which cause inherited disorders.

â€¢ **Plant biotechnology:** Biotechnology is being used to increase crop yields by inserting genes for resistance to diseases or pests using genetic engineering techniques. Crops such as soybean and canola are being modified to increase their usefulness as industrial lubricants and to produce oils lower in saturated fat that will have a longer shelf life.

â€¢ **Environmental protection and clean up:** Genetically engineered plants and microorganisms are being used to remove

toxins from the environment in a process known as bioremediation. In a process called biopulping, a fungus is used to speed the conversion of wood chips into paper pulp. The goal is to reduce both energy use and the production of water-polluting byproducts.

My goal in a life is to become a scientist and explore the real potential of biotechnology in India.