BioSpectrum the business of Bio & Health Sciences

â€œThere is missing link between research and commercializationâ€?

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I was fascinated towards biotechnology while doing my graduation. Since then, I have been greatly interested in this subject and I gradually developed a keen aptitude for teaching and research in this field. I got the opportunity when I cleared the national level common entrance test and went ahead to do masters in biotechnology from the Department of Biotechnology, University of Pune. After finishing the course, I did a post-graduate diploma course in clinical research and clinical data management from Bioinformatics Centre, University of Pune. Later, I also got an opportunity to teach MSc biotechnology students and conducted practical classes in molecular biology at the department of biotechnology, LNM University, Darbhanga, Bihar. At present, I am doing research in the fields of plant biotechnology and plant molecular biology at Birla Institute of Technology, Mesra, Ranchi under able guidance of Dr Kunal Mukhopadhyay, professor, BIT Mesra, Ranchi and Dr Neera Bhalla Sarin, dean and professor, School of Life Sciences, Jawaharlal Nehru University, Delhi.

It has been my constant endeavor to sustain and enhance my interest in the study of biotechnology and delve deep into the fountain of knowledge to come up with works of original value. During post-graduate study, I did my project related to plant molecular biology under the guidance of Dr Vidya S Gupta, scientist G, plant molecular biology division, National Chemical Laboratory, Pune (Maharashtra). My project titled "Simple Sequence Repeat Analysis of kernel Hardness in Hexaploid Wheat" was based on the principle that the combination of molecular marker and trait data can be used to explore the individual genes concerned with quantitative trait. This project involved isolation of DNA from wheat leaves, amplification of genes by using SSR primers, electrophoresis such as agarose and denaturing polyacrylamide gel electrophoresis followed by linkage and QTL analysis done with the help of Map Maker and QGENE softwares respectively.

The training that I received in my department and later in National Chemical Laboratory, Pune gave me good exposure to the field of molecular biology and genetics. As it is my fondest dream to obtain doctorate in plant biotechnology, I am currently doing research on Ocimum in exploring its usefulness in cancer treatment and its possibility of being used as an antioxidant.

Biotech companies are preparing medicines, vaccines for various ailments; high yielding crops (genetically modified); healthy food with enhanced vitamin and nutritional elements; and biofuels produced from forest residues, algae, municipal solid

waste, or other renewable sources of biomass, without altering the environment. Despite having a rich biodiversity, huge market, trained manpower, strong knowledge-based industry and large export potential, India is still lagging behind as there is missing link between research and commercialization. Low expenditure by industries and lack of proper funding by private and public sectors all have affected the quality of Indian products to meet international standards. Thus we need proper funding for conducting research to advance ourselves and excel in this niche sector.