INTRODUCTION

The discipline of Biostatistics has contributed substantially to the development of health, medical and biological sciences and has emerged as an important tool for research. By applying various statistical methodologies a variety of easily applicable diagnosis, treatment and prognosis methods have been developed with scientific validity and many diseases and health conditions have been understood and dealt with appropriately. Statistical methodologies form the strength of any research study so as to make valid judgments and conclusions. Statistical design and analysis methods are very widely used in Clinical Trials, Pharmacology, Genetics, Biotechnology, Basic Sciences, Epidemiological studies, Demography, Quality Control of Medical & Biological equipments, Medical Diagnosis & Prognosis and Health Economics. Any research work is incomplete without treating the data statistically and interpreting the results with scientific and statistical reasoning and evidence. Its importance in Public Health administration in identifying causative factors of various diseases and identifying health priorities and proper allocation and utilization of the available budget appropriately and judiciously has also been well recognized now. There is an ever growing demand for this subject due to all these reasons.

Statistician plays a major role in research studies right from the planning stage till the report is prepared. In the past, as well as in the present, post-graduate education in Statistics in most of the Universities in our country is mostly on the theoretical aspects. Topics on practical aspects covering examples on the application of statistical methods on different fields, especially on medical and biological problems are very limited. Hence, it is natural that students who are not exposed to the applications of statistical methods to medical & health problems find it difficult when they join medical colleges or medical research institutes for employment.
Hence it becomes essential to provide appropriate professional education in Biostatistics to the candidates interested in pursuing a career in medical education and research. Such courses are essential for improving the quality of teaching Biostatistics to the medical students and also the quality of research work being carried out in medical & health research institutions. Such courses will be highly beneficial to the young statisticians in advising the medical & health researchers in designing their research projects scientifically, in maintaining the quality of data and its management and in analyzing the data applying appropriate statistical methods and also in the interpretation of the results obtained, meaningfully and validly.

Though there are a variety of courses in Biostatistics at the postgraduate level in many foreign universities, only a very few such courses are available in our country which are inadequate to meet the needs of more than 300 medical colleges and research Institutions, Central and State health Ministries and related Departments and a large number of Pharmaceutical companies. With this background a postgraduate course of two years’ duration, titled 'M.Sc in Medical Statistics' was started in Amrita Institute of Medical Sciences, Kochi in 2009 for the benefit of those students who would like to specialize in Biostatistics after their graduate / postgraduate courses in Statistics or Mathematics with Statistics. This course was renamed as 'M.Sc in Biostatistics' with some essential modifications in the syllabus which are appropriate for Biostatistics.

**EMPLOYMENT OPPORTUNITIES**

Successful candidates of this course will get opportunities to work as Faculty / Statisticians and Research assistants and officers in medical colleges, research institutions, Health Ministries and Departments, Pharmaceutical companies and Universities.