II INTERNATIONAL SYMPOSIUM ON SCIENCE AND BIOTECHNOLOGY
ENTREPRENEURSHIP AND INNOVATION

# SHORT - COURSE: MOLECULAR BIOLOGY APPLIED TO CLINICAL ANALYZES

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Abstract

In recent years, genetics, cellular biology, genome sequencing of pathogens, among other resources, have significantly changed the opportunities for epidemiological investigations, pathogenesis studies, diagnosis and control of microbial diseases. The PCR technique has expanded the possibilities of DNA analysis and has made molecular biology find new applications even in areas outside its traditional field, such as medicine, agriculture and biotechnology. PCR presents a wide range of applications in various branches of scientific research. This reaction allows a particular region of the genome of any organism to be multiplied in millions of copies, which facilitates genetic analysis and allows the development of diagnostic techniques, much more sensitive and more specific than those traditionally used. The mini-course will have a brief presentation on molecular techniques and after the practical part with the following steps: Extraction of bacterial DNA, Quantification of DNA by the absorption spectrum of nucleic acids, Polymerase Chain Reaction (PCR) associated with length polymorphism DNA fragments (PCR_RFLP / ARDRA) terminating with Sample Analysis using the technique of Agarose Gel Electrophoresis.

Keywords: Genetics. Epidemiological. Polymerase Chain Reaction.

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