

# Global Summit on Electronics and Electrical Engineering

November 03-05, 2015 Valencia, Spain

## A survey of microarray technology for DNA analysis

**Begum Erciyas**

Dokuz Eylul University, Turkey

With the discovery of DNA, which is the basic building stone of all living organisms in 1953 a secret door was opened. In 2000, with the finalization of "Human Genome Project" the genetic code that composes human was solved and gene age started. But learning the arrangement of millions of DNA bases does not mean that everything was found. According to the types of the cells and the changes in the messenger RNA (mRNA), the causes of the diseases can be found, the causes of getting old and being ill can be found, the effects of the diseases' differences on different people can be commented. Exactly at this point, we come across with "microarray technology" which provides reading of six billions characters of human DNA fast and efficiently, comparing of control sequences and other sequences accurately and finding even the littlest change in a very short time. In this work, the answers of the questions; what is a microarray, what requirements caused a need for microarrays, what are the types, where the microarrays are used and how they are produced, what are the advantages and disadvantages of the microarrays and how they can be developed in the future will be investigated.

### Biography

Begum Erciyas has obtained her Undergraduate degree of Electrical and Electronics Engineering from Eastern Mediterranean University, Northern Cyprus. She took her first MSc from Ege University Biomedical Technologies Department, Turkey. Presently she is pursuing her 2<sup>nd</sup> Master's degree in Biomedical Technologies Department in Dokuz Eylul University, Turkey. She is also the Research Assistant of the same department in Dokuz Eylul University. Her Master's thesis title is "Design of hardware and software for heart rate variability analysis".

[begum.erciyes@deu.edu.tr](mailto:begum.erciyes@deu.edu.tr)

### Notes: