Nutraigenomic: Gene-diet interactions in green tea polyphenols

**OBJECTIVES**

- Have an overview of nutrigenomic
- Know the main bioactive component of green tea and its features.
- Understand the molecular signaling pathways and mechanisms of action related to green tea polyphenol: epigallocatechin-3-gallate.
- Gene expression changes induced by green tea polyphenol epigallocatechin-3-gallate in several cell lines of different cancer types.

**Mechanisms of action of EGCG**

**Signal transduction pathways of EGCG**

**CONCLUSIONS**

- Green tea polyphenols down-regulate the expression of genes involved in cellular proliferation and they up-regulate apoptotic genes.
- EGCG could have an important role in cancer prevention.