

Significance of nutrigenomics in clinical diagnostics

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Abstract

Nutrigenomics is the application of genomics in the field of nutrition enabling associations between specific nutrients and genetic factors influence gene expression. This area provide information of diet related disease on a genome wide range and to understand the mechanisms underlying genetic predispositions. Such diet regulated genes likely to play a role in the onset, incidence progression and severity of chronic diseases. Modifying dietary intake can prevent monogenetic diseases. It also reveals why and how people respond differently to same nutrient. Global analysis techniques known as “omics” opened new avenues in nutrition. Advances in DNA sequence micro assay, mass spectrometry and nuclear magnetic resonances have provided insights. Role of dietary components such as fruits, vegetables, plant extracts, micronutrients, macronutrients, carbohydrates, fibers, vitamins, protein in health maintance or in disease development. A compressive knowledge of genetic, epigenetic nutrition, non coding RNAs proteomic and metabolic and liptonic biomarkers and their significance in clinics will be presented. Biomarkers of exposure include biological biomarkers of exposure recommended for dietary food take. In clinics the biomarkers may help to formulate personalized dietary recommendation to achieve optimal health and wellness. Combining new information with personal nutritional biomarker profile and translating into to specific outcomes helps empowering citizens to have a healthiness optimal behaviour and life style adaptations.



Biography:

Rudrama Devi did Ph.D. Osmania University in 1981 joined university services 1983 has 35 Years of teaching and research experience Published 208 research papers presented 98 research papers at National and International conferences. She was the Head, chairman, BOS for Zoology Dept. O.U. She is the member of research Reviewer's Board, North Carolina, USA. She is the reviewer for national and international journals. Award of Distinguished Basic Science Faculty

Fellowship in 2015-18 member Editorial Board Asian Journal of Pharmaceutical and Biological Sciences, International of Journal Agricultural and Biological Research.

Speaker Publications:

- 1."Nuclear anomolies in exfoliated buccal cells of Occupationally lead exposed population", Rudrama Devi 2011. International Journal of Pharma and Bio Sciences. 2. 710-716.
- 2."Modulatory effects of garlic extract against the cyclophosphamide induced genotoxicity in human lymphocytes in vitro", Rudrama Devi,(2009). Journal of environmental biology / Academy of Environmental Biology, India. 30. 663-6.
3. "Effects of paint particles inhalation on superoxide dismutase and glutathione peroxidase activities in industrial painters",Rudrama Devi (2008)Toxicological & Environmental Chemistry. 90. 341-347. 10.1080/02772240701500237.
4. "Increased Frequency of Chromosomal Aberrations in Industrial Painters Exposed to Lead-Based Paints", Rudrama Devi,(2008).Journal of environmental pathology, toxicology and oncology : official organ of the International Society for Environmental Toxicology and Cancer. 27. 53-9. 10.1615/JEnvironPatholToxicolOncol.v27.i1.60.

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