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## Role of Molecular Epidemiology in Prediction of Cancer Among Tobacco Smokers

Tobacco smoke is common unacceptable habit worldwide, and among the various histologic types of lung cancer, cigarette smoking had the strongest effects on small cell carcinoma, followed by squamous cell carcinoma and adenocarcinoma. Gene susceptibility to cancers among smokers was discussed and proved in several studies. Therefore, it is important to define the predictive role of molecular epidemiology in prediction of cancers among tobacco smokers. This presentation will summarize the recent trends of using epigenetics, gene polymorphism, comets assay, telomere length, and other biomarkers in prediction of cancers in smokers compared to nonsmokers. These molecular biomarkers proved to have significant effects in early prediction of cancers among smokers

**Keywords:** Smoking, Cancer, Epigenetics, Gene polymorphism, Comets Assay, Telomere length

### Biography:

Amal SaadEldin Ahmed Hussein is an Emeritus Professor of Environmental Health & Preventive Medicine, Environmental & Occupational Medicine Department, National Research Centre, Egypt Former Dean of Environmental Research Division, and Former Head of Environmental & Occupational Medicine Department, NRC, member in National Committee of Toxicology, Academy of Scientific Research and Technology, and expert in IPCC, and reviewer several international journals. Ph.D., M.D., MPH were in Public Health and Environmental Medicine from Faculty of Medicine, Cairo University, and obtained several scientific prizes, and Certificates of Excellence in Scientific Productions. She is General Sectary for PAEMGS, and Deputy Head of EEMS. She established Smoking Cessation clinic and Environmental Toxicology Clinic in NRC. She has 72 International and 21 National Publications, and she was the principle investigator of several national projects.