

[P-59]**Anti-Proliferative Effect of Sulforaphane in Human Breast Cancer Cells and V-MYC Transformed WB-F344 Rat Liver Cells**

Eun Hye Jo¹, Ji Won Jung¹, Sung Dae Cho¹, Se Ran Yang¹, Joon Suk Park¹,
Jae Woong Hwang¹, Byoung Su Yoon², Sung Hoon Kim³, Yong Soon Lee¹
and Kyung Sun Kang¹

¹*Department of Veterinary Public Health, College of Veterinary Medicine, Seoul National University,* ²*Department of Biology, College of Natural Science, Kyonggi University and*

³*Graduate School of East-West Medical Science, Kyunghee University*

Sulforaphane, contained abundantly in Brassica species vegetables, is associated with reduced risk of cancer in human populations, thereafter is regarded as an prospective chemotherapeutic agent. In this work, we have analyzed a possible mechanism by which isothiocyanate induces cell death in cancer cell lines. Our results show that sulforaphane inhibited cell proliferation and triggered apoptotic pathways including changes in p53 and Bcl-2/bax ratio, caspase cascades, proapoptotic proteins (PARP and Apaf-1), and eventual changes in morphology of nuclei. We suggest that sulforaphane might have potency for being used as chemotherapeutic agent.

Keyword : Sulforaphane, MCF-7 cell, WB cell, v-myc, Apoptosis