In 1985, Mutsuyuki Kochi reported a novel anti-tumour agent after acquiring a Japanese Patent in 1969 [1,2]. According to his patent, 4-Hydroxybenzaldehyde is a water-soluble anti-tumour agent without any side-effects. Mostly, so called anti-tumour agents are incapable of ceasing carcinogenesis. In other words, they are only able to control multiplications of malignant tumour cells. Still in other words, they inhibit divisions of malignant cells. Therefore, they cannot be used for cancer prevention. On the contrary, 4-Hydroxybenzaldehyde is capable of stopping carcinogenesis via competitive inhibition of tyrosine kinase activity, which is regarded as a rate limiting enzyme in the pathway of carcinogenesis [3]. The concept of competitive inhibition originates in the classical enzymology, which tells you that the enzyme molecule accepts a molecule that has a similar but not identical structure of its substrate as an error. In the case of competitive inhibition of tyrosine kinase, the rate-limiting enzyme in carcinogenesis, 4-Hydroxybenzaldehyde has three groups in common with tyrosine, benzene nucleus, carbonyl group and hydroxyl group. In conclusion, 4-Hydroxybenzaldehyde can be used for cancer prevention e.g., 1000 mg of the compound dissolved in 200 ml of mineral water orally taken once a month will prevent most carcinogenesis. In order to raise the probability of the prevention, you can either raise the monthly amount of the compound or shorten its interval.

References