

## Professor János Sugár 1922-2010



Professor Sugár's teaching and research activity spanning more than 50 years in pathology departments of medical universities was particularly esteemed for his diagnostics of tumor pathology. He was head of the pathology department of the Research Institute of the National Oncology Institute from 1974 until 1992. His professional, scientific teaching and science policy activities have been widely recognized over the years with numerous distinctions such as the Academy Prize of 1988, or the Order of the Star embellished with the Golden Wreath awarded by the Hungarian Republic.

His interest focused on determination of the pre-neoplastic processes, the reversible and irreversible phenotypic and more recently the genotypic characterization. He firstly described the electron microscopic microinvasion preceding the real invasion occurring in serious dysplastic tumors in skin, laryngeal, breast and gastroenteric pre-cancerous states (Europ J Cancer, 1968).

He started to apply the wide spectrum of quantitative morphometric methods early in the sixties. His DNA cytometric investigations proved that aneuploidia, the DNA index rise and proportional percentage increase of S-phase cells may occur already in the precancerous period and that was an early biomarker of the malignant transformation.

More recently (1997), his molecular pathological investigations have proved that besides the changes in the protein of mutant P-53 genes, in certain laryngeal pre-cancerous states, the gene cohesive glycoprotein variant of CD-44 also occurs promoting invasive growth and later metastatic formation. Among his other research achievements, we should mention his early study revealing the carcinogenic effect of Dioxin (TCDD) which was used in the Vietnamese war (Nature 1979).

His lectures and teaching of pathology comprising the latest critically assessed results over many decades, have led to outstanding professionals who have followed in his footsteps.

**Anna Tompa**