

初代培養: 1965年・JAR-1F24 ♀、生後11日の肝臓由来。主に4NQOによる試験管内発癌実験に使用。

NIH 50367
JCRB 0718-1

培養法: 静置培養、CS10%+LD培地。

樹立当初の特徴: 形態は上皮様。染色体核型は正二倍体。細胞電気泳動的にも均一な細胞集団であった。(1-1)(1-2)

4NQOによる変異

Carcinogenesis in Tissue Culture

23: Population Analysis in the Cultures of Transformed Rat Liver Cells by Cell Electrophoresis¹⁾

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Summary: In eight cultured strains of rat liver cells transformed in culture with 4-nitroquinoline 1-oxide (4NQO) or spontaneously, population analysis of cells was carried out by an automatic photo-recording cell electrophoresis.

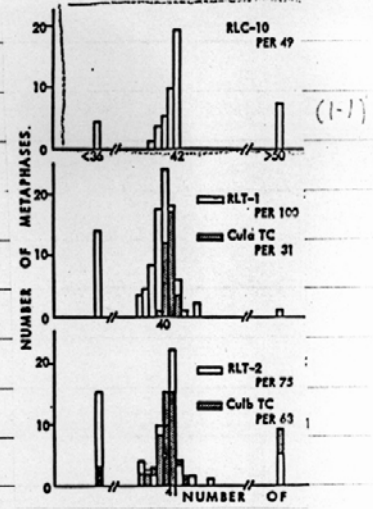
The lowest frequency range of the presence of malignant transformants in the cell strains was anticipated to be less than 5%, and the cell strains having low population of malignant transformants were those transformed spontaneously or by a single or several times of application of 4NQO.

On the contrary, the highest was as many as 18%, the strains malignantly transformed in culture by many times of application represented higher population of transformants.

Hence it was strongly suggested that, when cell strains were malignantly transformed in culture by different ways, their malignant cell populations were quite different in number from each other. The biological property of cell strains transformed in culture could be not reasonably compared with each other unless cell population analysis is employed.

ID=5572

(1-2)



(肝癌細胞との相互作用)

肝癌AH-7974細胞の放出する毒性¹⁾についての実験では、正常細胞の代表として使用した。まず双子管を用いて相互作用を観察し、次に肝癌培地を化学的に分析して、RLC-10細胞に対する増殖阻害度を検索した。(4)

(テロメアとテロメララーゼ)

テロメララーゼは一、テロメア長は2.0キロベース。

(4)

Toxic Metabolites Released From Rat Hepatoma Cells in Culture. I. Effects of Metabolites of Hepatomas on Various Cells^{1,2)}

Hajim Katsuta, Toshiko Takaoka, and Shigeru Yasumoto*

SUMMARY—All fractions obtained with Sephadex G-10 or G-25 from media in which various rat hepatoma cells were cultured inhibited the growth of normal rat liver cells in culture, whereas those from normal rat liver cells accelerated growth. The fraction from the media of rat hepatomas had little effect on the growth of rat hepatoma cells but markedly inhibited growth of liver cells which were not backtransplantable.—J Natl Cancer Inst 51: 1841-1844, 1973.

ID=1710

スパーミンに感受性

Effects of spermine on the proliferation of liver cells, hepatoma cells and peritoneal-lining cells of the rat in culture.

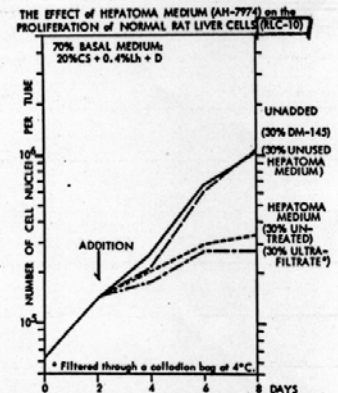
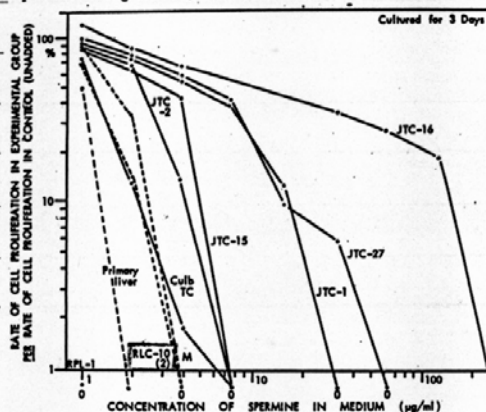
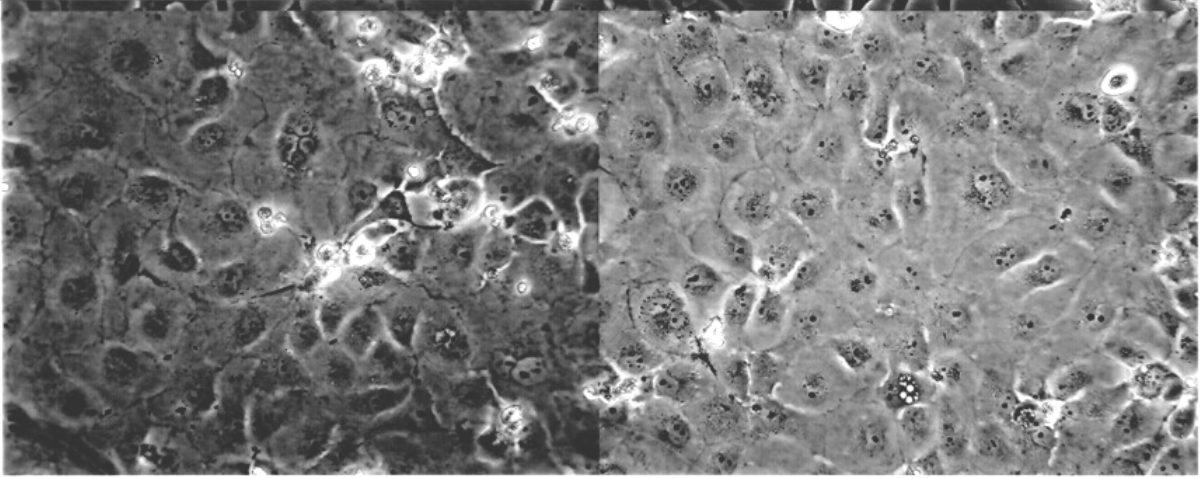


図4 正常ラット肝細胞の培養内増殖に対する肝癌培地(点線)およびそれを透析膜透過した濾液(縦線)の影響。縦線は肝癌細胞を加えずに再期間加温した肝癌用の培地を添加した群を示す。



RLC-10
· P3