Discussion Letter

Origin of human neuroblastoma cell lines TGW and TNB1

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Received 19 February 1990

Analysis of DNA rearrangements and N-myc gene amplification was reported by H. Kato and associates in the July 1989 issue of this journal [1]. They used three human neuroblastoma cell lines, IMR-32, TGW and GOTO. TGW (also designated TOG [2]) was established as a cell line by one of us (M.S.) in May 1979 from a human neuroblastoma in nude mice. It originated from an autopsy specimen of a 23-month-old Japanese boy with disseminated neuroblastoma who died on April 28, 1977 [3]. The tumor in nude mice was later called 'TNB1 xenograft' in our laboratories due to the rapid increase in number of human tumors in nude mice. In December 1983, this xenograft was given to another investigator in our group (N.K.) as in vivo material of human neuroblastoma, who also succeeded in culturing this material in vitro. Since then, the tumor in nude mice and the new cell line have both been referred to as TNB1, and the name TNB1 has appeared in several publications [4–9].

Cytogenetic and some molecular cytogenetic characteristics of both the first and the second cell line were recently studied again. Representative karyotypes are:

TGW: 49, −X, −X, +5, −7, +9, +13, −16, +20, +der(X)t(X;?)(q28;?), +hsr(7)(q36), +hsr(16)(q24), +mar1

TNB1: 51, X, −Y, +9, +11, −12, −12, +13, −17, +18, +18, +hsr(12)(q15), +hsr(12)(q15), +der(18)t(18;?)(q23;?), +mar2

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Amplifications of clones 8, G21 and N-myc are:

	Clone 8	Clone G21	N-myc
TGW	none	none	60-fold
TNB1	80-fold	50-fold	50-fold

The genetic characteristics differ so greatly between the first and the second cell line that we should like to continue to refer to them by different names, TGW and TNB1, respectively.

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Published by Elsevier Science Publishers B.V. (Biomedical Division)
00145793/90/$3.50