Natural Killer Cells Express the CD16 Antigen

To the Editor:
We read with great interest and benefit the recent article from Kohchiyama et al [1] concerning immunohistologic studies of squamous cell carcinoma (SCC).

The authors suggest a possible participation of Leu-7$^+$ cells as antitumor effector cells against SCC. Moreover, they state that anti-Leu-7 monoclonal antibody identifies natural killer (NK) cells. This is partly in contrast with recent reports from us and other investigators. In fact, light microscopy [2,3] and electron microscopy [4,5] double-labeling procedures provided evidence for the existence of three discrete NK cell subpopulations, i.e., Leu-7$^+$,11$^-$, Leu-7$^+$,11$^+$, and Leu-7$^-$,11$^+$ cells. The Leu-7$^-$,11$^+$ subset possesses the most potent NK cell function capability, whereas the Leu-7$^+$,11$^-$ subset demonstrates the lowest NK activity [2,3,5]. Furthermore, NK cells expressing the CD16 (Leu-11) antigen display a different ultrastructural pattern in comparison to Leu-7$^+$,11$^-$ cells [6]. Finally, the HNK-1 (Leu-7) antigen is coexpressed by the majority of T8, CD11+ suppressor cells [7].

The authors describe both OKT8$^+$ and Leu-7$^+$ cells in close association with individual cancer cells. Are they the same cells? Unfortunately, by using a single labeling, Kohchiyama et al could not well characterize the immunophenotype of their Leu-7$^+$ cells.

In conclusion, it would be necessary to perform double labelings to verify to which cell subpopulations the described Leu-7$^+$ cells belong. Investigations performed by Kohchiyama et al [1] are not sufficient to define Leu-7$^+$ cells as NK cells.

Gian Carlo Manara, M.D.
Corrado Ferrari, M.D.
Giuseppe De Panfilis, M.D.
Department of Dermatology
University of Parma
Parma, Italy

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REPLY

The authors appreciate Dr. Manara's comments. As was pointed out above, we were not able to characterize the Leu-7$^+$ cell subpopulations, and the possibility cannot fully be denied that the OKT8$^+$ cells also expressed the Leu7 antigen. Although both OKT8$^+$ and Leu-7$^+$ cells could be seen in close association with individual cancer cells, a difference could be seen in their distribution by careful observation of serial sections. So we believe that the OKT8$^+$ and Leu-7$^+$ cells were not the same cells. We intend to verify the Leu-7$^+$ cell subpopulations in lesions of SCC in the future.

Akira Kohchiyama, M.D.
Kawasaki Medical School
Okayama, Japan

Keratinocyte Grafting: Covering of Skin Defects by Separated Autologous Keratinocytes in a Fibrin Net

To the Editor:
The clinical application of autografts by cultured keratinocytes was first demonstrated in 1981 [1]. We read with great interest the article by Takashima et al in the May 1986 issue. The authors reported in connection with an animal model that freshly isolated epidermal cells transplanted onto full-thickness wound beds formed a multilayered epithelial structure after 10 days [2]. On the basis of this observation, we have developed a method, keratinocyte grafting (KG), for the autotransplantation of skin defects with living keratinocytes. A fibrin net is an important element in the healing of wounds, as it provides a provisional matrix for epidermal cell migration during reepithelialization [3,4]. Keratinocyte grafting was therefore carried out with an artificial fibrin net containing living keratinocytes.

Epidermal cells were separated from a fresh surgical skin specimen of the patient by the trypsin digestion method described by Eisinger et al [5]. The cells were washed 3 times in phosphate basal solution (PBS; 0.05 M phosphate buffer, pH 7.2, and 0.1 M

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