Acute Lymphoblastic Leukemia

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André Hermans: In Memoriam

The Wyeth-Ayerst Laboratories–UCLA Workshop on **Acute Lymphoblastic Leukemia,** held in San Antonio, Texas, November 29–December 2, 1988, has been dedicated to our colleague André Hermans. For this generous initiative I am most grateful to the organizers Drs. Robert Peter Gale and Dieter Hoelzer.

After finishing Medical School in Amsterdam in 1984, André Hermans started his scientific training in the department of Cell Biology and Genetics at the Erasmus University, Rotterdam. He worked on the molecular charac-

André Hermans

terization of the Philadelphia translocation in Philadelphia-positive acute lymphoblastic leukemia. His major contribution to this field was the discovery of an alternative BCR-ABL gene fusion in this type of leukemia.

Since he understood both clinical and scientific problems, his future interest was to bridge the gap between the clinic and science, a task for which he was well qualified. Arrangements to reach his ideal had been made, his practical work had been finished, and he was writing up his thesis.

On November 9, 1988, André Hermans decided not to live any longer. Although we will never understand his reasoning and feelings, we will remember him as a bright, stimulating colleague and friend. His sudden death is a great loss for all who knew him—in particular for his wife Anne-Pauline and his family and friends, but also for his colleagues and the scientific community as a whole.

...

Gerard Grosveld

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ETIOLOGY OF CHILDHOOD ACUTE LYMPHOBLASTIC LEUKEMIA: A SOLUBLE PROBLEM?[1]

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Acute lymphoblastic leukemia (ALL) is the major subtype of pediatric cancer in developed countries (1) and is remarkable clinically in that a substantial proportion of cases are curable with relatively modest doses of chemotherapy and prophylactic CNS radiation (2); the basis for this success is unknown.

ALL is a biologically diverse disease and can be divided into broad subgroups according to immunological and karyotypic criteria (Table 1). These subtypes have varying clinical responses and correspond approximately to developmental stages of B and T cell precursor populations (3). It is important to appreciate that the correspondence between leukemic and normal cells accommodates the fact that the former have asynchronous phenotypes and that the dominant leukemic cell phenotype does not necessarily identify the target cell for the disease which could reside at a less differentiated developmental level (cf CML). This latter issue is important from both a therapeutic and etiologic viewpoint. Table 2 summarises what are the likely target cells for childhood ALL. These are either multipotential stem cells or lymphoid (T or B) stem cells.

The distinctive and diverse chromosomal abnormalities associated with these subtypes (Table 1; see also paper by Williams et al) are likely to be important components of the etiological mechanisms involved. Their diversity and cell type specificity presumably reflect in some way the selective advantage that certain genes or the proteins they encode can confer at particular stages of differentiation (3).

[1]This work was supported by the Leukaemia Research Fund of Great Britain.