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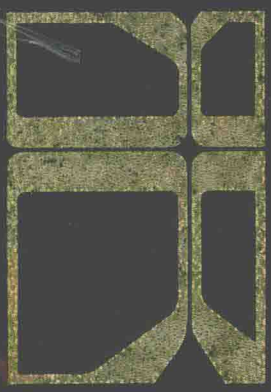
human lymphocyte differentiation: its application to cancer



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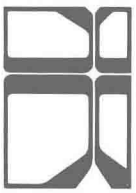
HUMAN LYMPHOCYTE DIFFERENTIATION: ITS APPLICATION TO CANCER

Proceedings of the International Symposium on Human Lymphocyte Differentiation: Its Application to Cancer, held in Montpellier (France), 2-4 March, 1978.

Sponsored by Institut National de la Santé et de la Recherche Médicale and Délégation Générale à la Recherche Scientifique et Technique.

Editors: B. SERROU
C. ROSENFELD



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HUMAN LYMPHOCYTE DIFFERENTIATION: ITS APPLICATION TO CANCER

FOREWORD

In recent years, the study of mouse lymphocyte differentiation has developped considerably. During this time, relatively few human studies have been undertaken in the same area and human lymphocyte sub-populations remain more poorly defined due, in some part, to the obvious difficulty in gathering material for such studies.

The purpose of this Symposium (Human Lymphocyte Differentiation and Its Application to Cancer) was to pinpoint the present state of these studies. This is the first Symposium on this theme on an international level. A reasonable point of departure seemed to include an attempt to define possible approaches toward human studies in terms of those employed in animal models, in particular, those relating to mice. This introductory and solely experimental consideration permitted an evaluation of different approaches to the problem posed by human lymphocyte differentiation. Although the study of human lymphocyte markers and functions have made some progress, it has yet to reach the point that mice studies have. So far it has not been possible to fully characterize the existing populations according to their antigenic properties.

However, certain substances which modulate this differentiation are beginning to be elucidated, especially at the level of T-lymphocyte function. They are capable of acting at different levels situated between immature lymphocytes of bone marrow and effector lymphocytes. Moreover, normal cell lines as well as leukemic cells represent an extremely interesting model for differentiation not only on the marker and functional level, but in relation to modulating substances as well. The genetic investigations have reached the first plateau, but the expression and the role of Ia-like antigen and the Fc receptor remain to be defined. In spite of these shortcomings, there is still a wide scope of application to the cancer problem, both, at the level of immune response monitoring systems as a function of tumor type, in addition to therepeutic considerations for which substances modulating lymphocyte differentiation (especially thymosin) could prove to be of considerable importance, particularly during immunorestoration in tumor-bearing patients. Applying all available information toward a classification of leukemias and lymphomas seems useful, while the therapeutic advantages are evident.

.../...

This kind of application has been a principal concern of INSERM and D.G.R.S.T., through whose research efforts in this field have led to various therapeutic programs. Through the efforts of INSERM with the help of the D.G.R.S.T., the Ministry of Foreign Affairs and the VILLEJUIF Association for Research against Cancer (A.R.C.V.), the first International Symposium on Human Lymphocyte Differentiation was made possible. The Symposium was held in MONTPELLIER, March 2, 3 and 4, 1978.

Obviously the subject was quite broad which forced the organizers to focus participant attention on a certain number of topics which admittedly could not cover the entire field. In particular, the role of a number of substances and lymphokines considered to be important to lymphocyte cellular differentiation were not discussed, nor were gene products dealt with specifically. The role of the Fc receptor was discussed very little, which, along the Ia-like antigen could have been the topic of an entire conference in themselves.

Due to this practical limitation,articles presented in this text do not purport to be of an encyclopedic nature. THeir goal is merely to clarify a given topic and to present the most recent information on the topic under consideration. Toward this goal, a number of pivotal concepts will compose the nucleus of this work.

We wish to thank all the speakers at this Symposium whose cooperation and enthusiasm dominated the mood and assured the success of this first gathering. The fine quality research presented in this publication renders this book of great interest concerning the latest findings on human lymphocyte differentiation.

The Editors

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