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**TRANSFUSION MEDICINE**  
**RECENT TECHNOLOGICAL**  
**ADVANCES**

EDITORS: **Kris Murawski**  
**Frans Peetoom**

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# TRANSFUSION MEDICINE

## RECENT TECHNOLOGICAL ADVANCES

Proceedings of the XVIIth Annual Scientific Symposium  
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# TRANSFUSION MEDICINE

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## WELCOME

Alfred J. Katz, M.D.

American Red Cross

Washington, DC 20006

Good morning, and welcome to the American Red Cross XVII Annual Scientific Symposium. I'd like to welcome our distinguished speakers and thank them in advance for their willingness to join us and share their expertise, and to welcome old and new attendees to these meetings, including our visitors from other countries. Your presence here today is most appropriate -- this, coincidentally being World Red Cross Day -- a day established by the League of Red Cross Societies on which national Red Cross societies traditionally recognize their accomplishments of the previous year.

You've no doubt noticed that we are not at the Pan American Health Organization building this year. That building has undergone renovations and some of the space which we used for the meeting is no longer available. We will miss those elegant surroundings, but anticipate that these will be convenient and congenial, if not as unusual. Certainly the expectations for this symposium -- to learn about and to recognize scientific achievement and to foster collegiality are undiminished, as is the fringe benefit of a visit to Washington at this nicest time of year.

Great thanks are due Dr. Frans Peetoom, the chairman of this meeting, and his planning committee, of Drs. Murawski, Slichter, and Zanjani, for finding us a new location and for organizing this program. You will note that our program this year departs from the single subject motif. It ranges over seven subject areas, and reviews disciplines which may improve, augment, or substantially displace current transfusion medicine practices. The rate of change, and the advance of knowledge that has occurred in these many fields that relate to transfusion medicine, made an overview year with a varied menu attractive and appropriate. By creating this agenda, we may

have exhausted subject areas for years to come, but more likely we will have simply whetted our scientific appetites for more. We have, however, reserved next year's symposium for transplantation science, including tissue and organ preservation.

Two years ago at this meeting, I told you about a new American Red Cross program to support established investigators in our blood services regions. The program has not grown as rapidly as initially anticipated, but I am pleased to report that since January 1984, Stein Holme and Craig Jackson in hemostasis, Susan Radke, Harry Prince, and Michael Sheehy, in immunology, have received these five-year awards. We are very pleased that these scientists have joined us and we are equally pleased with their research contributions to date.

Major changes are also underway at the headquarters laboratory here in Washington. Since we last met, Dr. Leon Hoyer has joined us as Associate Vice President, for Biomedical Research and Development. Dr. Hoyer has been a speaker at these symposia, and it is a special pleasure that he is here in his new capacity. A new laboratory configuration is taking shape, most particularly with the identification of research units analogous to basic science departments, and we are aggressively, and optimistically seeking new quarters to house the research, production, and service laboratories.

It is thus with a continued sense of responsibility for the advancement of transfusion medicine and with the continued sense of transfusion medicine as a cornerstone of modern medicine, that we look forward to three exciting days.

INTRODUCTION: TRANSFUSION MEDICINE, RECENT TECHNOLOGICAL  
ADVANCES

Frans Peetoom, M. D., Ph. D.

American Red Cross Blood Services, Pacific North-  
west Region, Portland, Oregon, 97201

I would like to provide you with some information on the  
background of the program content and scope of this meeting.

When I accepted to be the Chairman of the Planning  
Committee for the XVII Annual Red Cross Scientific Sympo-  
sium, the working title of the symposium given to me was  
"The Impact of High Technology on Transfusion Medicine."  
After exploring program options and contacting potential  
speakers, it became clear that, thus far, "high technology"  
has had more of an impact on the imagination and expecta-  
tions of individuals working in the medical field, rather  
than having changed established transfusion medicine  
practice or procedure. Although several important clinical  
studies are currently under way, the effects of technical  
progress, classified as "high-tech", are still at the level  
of research, both laboratory and clinical, more so than at  
the routine patient care level. With this condition in  
mind, the title of the XVII Symposium was eventually  
changed to a more appropriate one: "Transfusion Medicine:  
Recent Technological Advances."

As Chairman of the Planning Committee, providing me  
with a certain freedom of choice, and as Director of a  
Regional Blood Center, explaining my "cultural" motives, I  
decided to work with two parameters that make up the sympo-  
sium program framework. These two parameters relate to a  
predictive model of the future evolution of the blood  
supply system in the U.S., authored by Suzanne Gaynor and  
myself a little over two years ago.

This model tries to anticipate the practical applications of new or "high" technologies in the field of transfusion medicine. This aspect serves as one of the parameters for the Symposium framework. The second parameter relates to the impact of these new technologies on the current blood supply system, which has been, and still remains, an integral part of transfusion medicine performance today.

The model predicts an ultimately, revolutionary change in the function of blood centers and blood banks. Many blood banks/centers, especially those with continued orientation towards basic products rather than services, will perish. Coincident with this change, new service options for continued partnership with transfusion medicine will present themselves, and blood banks/centers that will have invested in contemporary expertise and services should be able to survive in new and challenging roles.

Thus, the XVII Scientific Symposium will cover, both, new production technologies that will affect the traditional blood supply system, as well as new laboratory technologies that offer blood centers and blood banks the opportunity to expand and redirect their service interests in the near and more distant future.

Given this framework, the variety of topics covered in the Symposium may be seen to be functionally interrelated as cause and effect from rapid, scientific developments in the blood supply system and in the field of transfusion medicine.

Finally, I wish to acknowledge the substantial support of the other members of the Symposium Planning Committee:

Kris Murawski, M. D. (American Red Cross National Headquarters, Washington, D. C.) who was largely responsible for logistical and administrative support.

Sherrill J. Slichter, M. D. (Puget Sound Blood Center, Seattle, Washington) and Esmail D. Zanjani, Ph. D. (Veterans Administration Medical Center, Minneapolis, Minnesota) for their assistance with program content.

I, also, want to thank Ling Wong, designer of the Symposium program cover, who did a most commendable job.

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