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TOMIZO YOSHIDA, M.D.
February 10, 1903-April 27, 1973
DEDICATION TO TOMIZO YOSHIDA, M. D.

The proceedings of this 11th International Symposium on Comparative Leukemia Research have been dedicated to the memory of Dr. Tomizo Yoshida—scientist, scholar, teacher, administrator, and organizer of the scientific community. On April 27, 1973, one of the men most responsible for the growth and development of research activities in the field of cancer, both within the country and internationally, passed, causing a nationwide feeling of deepest grief.

Born in 1903 in a small town in Fukushima Prefecture, Japan, Dr. Tomizo Yoshida received his M.D. degree from Tokyo Imperial University in 1927 and carried out his post-graduate studies and training at the Department of Pathology of his home University under Drs. M. Nagayo and T. Ogata, both of whom were most prominent pathologists of the country at the time. During the six years that followed his move to the Sasaki Institute in 1929, he undertook a series of outstanding studies on the hepatocarcinogenesis of a compound, o-amidoazotoluol. These studies apparently played the major role in firmly establishing his future carrier in the field of experimental pathology and oncology. Together with his director, Dr. R. Sasaki, he received—at an unusually young age—the highest award from the Japan Academy of Science for these prominent research activities and achievements.

In 1935, he moved to the Nagasaki Medical School, where he spent some ten years as the professor and director of the Department of Pathology. The discovery and the establishment of the Yoshida sarcoma cells, which are still used worldwide as a useful tool and experimental system for cancer research, were accomplished during these days. With these achievements, he was once again awarded the highest award from the Japan Academy, which is very unusual. In addition to these honors, the National Cultural Medal was given to him in 1954. These works properly received recognition and appraisal from many foreign organizations and were also honored by several notable prizes, including the Robert Koch Medal from Germany and the Schean Medal from Sweden.

From 1944, Dr. Yoshida spent eight years at Tohoku University and then returned to his home institution, University of Tokyo, where he held both professorship and chairmanship of the Department of Pathology until his retirement. In the meanwhile, his activities expanded to include administration when he served as dean of the medical school.

Much has been described about Dr. Yoshida's contributions to scientific societies both here and abroad. He served many terms as the chairman of the executive board of the Japan Pathology Society, including during its 50th anniversary meeting in 1961. Five years later, the UICC International Cancer Congress was held in Tokyo with
Dr. Yoshida as president.
One of the foremost of the attributes that have made Dr. Tomizo Yoshida unforgettable among the investigators of the cancer field was his great capability and enthusiasm for organizing the grant system for basic research in the field under the auspices of the Ministry of Education of the Government of Japan. It would not be exaggerating to state that the present activity in the field of cancer research in this country could not have existed without his efforts, wisdom, and dedication.

Dr. VOHEI ITO
President
IACRLRD

PREFACE

On behalf of the Organization Committee and the World Committee of the International Association for Comparative Research on Leukemia and Related Diseases, it is my great pleasure and honor to extend a warm and hearty welcome to the chairmen, participants, and invited guests of the VIth International Symposium on Comparative Leukemia Research. Most of them have traveled such a long distance in order to join this undertaking.

Interest in problems of leukemia and its related diseases has attracted many research workers in the cancer field primarily due to the fact that it provided a meeting ground for comparing the results of studies on different species of animals and also those of various methodology and discipline. The present gathering is the sixth in a series established by investigators whose interests and enthusiasms reside in attempting such comparative approaches to the study of these diseases.

This symposium, as well as those that preceded it, originated from a workshop-type meeting that took place in Philadelphia in 1960. Since then, the symposia have encountered two major turning points. One was the assembly of the first symposium held in Hannover in 1963 and the establishment of the World Committee elected by the participants of the meeting. The other was the outgrowth and development of the International Association, which was started after the Vth meeting in Padova in 1971. The Association is still growing. It is my sincere hope that the International Association will accomplish its aim here in the Far East and that the collaborations and exchange of ideas at this meeting will catalyze the advancement of our knowledge of leukemia and related diseases, which may lead us to the ultimate goal not too far in the future.

Dr. VOHEI Ito
General Chairman

FOREWORD
The VIth International Symposium held at Nagoya and Ise-Shima, Japan, provided an opportunity for eminent scientists from around the world to review the current state of knowledge and to present new findings on leukemia and related diseases. The beauty of the Japanese Islands and the congeniality of our gracious hosts were very much appreciated and contributed immeasurably to the success of this meeting. Despite the long journey, most of the nations active in cancer research were well represented. Since their inception in 1963, these symposia have played a major role in developing a truly international program of research on cancer. As attested to by the proceedings of the VIth meeting, the program was organized to contribute something meaningful to the solution of the human cancer problem. Though much emphasis is placed on the development of optimal conditions for the management of the cancer patient, it is absolutely essential that the fundamental research base be maintained and, indeed, strengthened. Thus, the comparative approach is most useful for providing important new leads for studies on the cause and control of leukemias and related diseases in man.

On behalf of the participants, we convey our thanks to Dr. Vohei Ito and other members of the World Committee for the tremendous amount of effort they put into the preparation of this program. Finally, we are most grateful to the late Dr. Ray M. Dutcher, the Secretary-General, whose deep commitment to the Society helped make these symposia possible. His sudden death a few months after the VIth meeting was an extreme shock to all his colleagues. He is missed.

Dr. J. B. MOLONEY
National Cancer Institute

INTRODUCTION

It is a great pleasure and honor for me to be here today and welcome you in the name of the International Association for Comparative Research on Leukemia and Related Diseases.

Two years have passed since we left each other at Venice at the close of the Vth Symposium. These two years have been dense with work for all of us, with the enthusiasm and disappointments that are inherent in every field of experimental research and, in particular, that of cancer and leukemia. But on the whole, I believe that the balance may be considered positive, and by listening to the reports of what has been done, you yourselves will be the judges of this in the next few days.

The World Committee for Comparative Research on Leukemia and Related Diseases was founded in 1963 in Hannover to meet the need of collecting and coordinating the multi-disciplinary contributions to leukemia in various animal species—a need which was felt by most of the scientists committed to this field. In the years that followed, four other symposia were held every two years, at Stockholm in 1965, at Paris in 1967, at Cherry Hill in 1969, and at Padova and Venice in 1971. During
these years, the interest and the participation have grown so much that it has been necessary to transform our group into an International Association, which could operate more efficiently as an organ of coordination and information exchange.

All the members and officers of the World Committee, thanks to their great experience, have contributed in a determinant manner to the establishment of the Association, and here I wish to express my heartfelt thanks to you all. A special thanks goes to our Secretary-General, the late Dr. Ray M. Dutcher, whose tenacious, untiring, and enthusiastic efforts have made our Association operative.

Recently, much has been written and rumored, particularly in the United States, in regard to which policy to follow in biological research. That is, is it more correct from a moral and practical point of view to leave the individual scientists free to carry out their studies following their own inspiration, intuition, and originality, or should government-subsidized research be channeled into predisposed programs with more or less immediate applicative ends.

My own personal opinion in this connection—which I offer as a scientist who is obliged every year to submit an application for grant renewal to the Italian National Research Council—is that in the field of cancer and leukemia research, this conflict does not exist. Perhaps because this field of research has a precise application—the control of neoplastic disease in man—the danger that it may become an abstract research does not exist. The people who coordinate and administrate cancer and leukemia research programs are very well aware of this since they are or they were personally involved in research, and they understand very well the needs and problems of the single scientist. For this, they respect his liberty.

It has also been said authoritatively that no research program, even the most endowed, brain-wise and money-wise, is able to foresee in terms of time the date of the final result—the cure of cancer and leukemic disease. Every research worker and administrator with some common sense must agree with this statement. Nevertheless, the possibility does exist that each one of us, as a single individual and as a member of a national and international institution, can work actively in forestalling leukemia and cancer. The cost, in human energy, of prolonging the life of a leukemia patient, even for a single day, is too high to permit "mankind," by waving false flags of liberty and progress, with impunity and thoughtlessness to cause hundreds and thousands of new cases of disease to occur. It is to be hoped that each one of us, with the same perseverance and enthusiasm that we feel for our studies, will focus our critical attention on all levels so that the tragic errors of yesterday and today may be avoided tomorrow.

I cannot conclude without expressing my gratitude to Professor Vohei Ito and to his collaborators on the Organization Committee. Theirs has been a difficult task, but I am sure that the success of this symposium will be the reward for their hard work.
Dr. Lumi CHIECO-BIANCHI
President (1971-1973)

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The Robert Roesler de Villiers Award of the Leukemia Society of America, Inc. was established in 1954 for the purpose of recognizing the contributions of leading leukemia researchers to the overall advancement of the attack upon leukemia. From time to time the Society selects an individual whose work warrants special recognition. Since its establishment the de Villiers Award for achievement in leukemia research has been awarded six times, once to two investigators. The award consists of a scroll, medal, and a $1000 prize.

The Leukemia Society of America, represented by Dr. Joseph Burchenal, Vice President of its Medical and Scientific Advisory Board, proudly presented awards to Dr. Howard Skipper of the U.S.A. and posthumously to Dr. Tomizo Yoshida of Japan. The award to Dr. Yoshida was graciously accepted in his behalf by his daughter, Yasuko Anzai, with the following expression of appreciation.

On behalf of my late father, I would like to express my most sincere gratitude for the great honor that you have given him. My father would have been very proud if he
could have accepted the Award himself. During his long illness it was his dream to recover and live another ten years to fight the horrible disease of cancer as he had done almost all his life. I am very happy and proud that you remember my dear father and his work. I am appealing to you on this occasion to do everything in your power to help people overcome cancer—mankind's fearful enemy.

XXX THE DE VILLIERS AWARD OF THE LEUKEMIA SOCIETY OF AMERICA, INC.

Dr. Skipper accepted his award with the following comments.
I am indeed honored to receive the Leukemia Society of America's de Villiers Award—and join previous recipients of this award in paying tribute to the memory of Robert R. de Villiers and, in turn, the fine work of the Leukemia Society.
In all honesty I have never worked alone. Therefore, I must accept this award in the names of my associates at Southern Research Institute, the National Cancer Institute Therapy Program and many scientists and research physicians with whom we have worked over the years. Three are here tonight: Dr. Gordon Zubrod, Dr. Joseph Burchenal, and Dr. Emil J. Freireich.
I am additionally pleased to accept this award at the VIth International Symposium on Comparative Leukemia Research, and in this beautiful and wonderful country of Japan. Also, I pay my deep respect to the late Dr. Yoshida who also received the de Villiers Award tonight.
This is not the time for a speech, but a word about leukemia research is perhaps not out of place.
Biomedical researchers around the world have contributed a wealth of knowledge—at the molecular, cellular, and in vivo levels—about the nature of the leukemias and their treatment. However, this basic and very practical knowledge still remains a bit too compartmentalized along disciplinary lines. In the years ahead I would plead for more effort to bridge the gaps between these bodies of knowledge (molecular, cellular, and in vivo) with the view of strengthening theoretical concepts at each level, improving clinical research direction and medical practice

Past Recipients of the de Villiers Award of the Leukemia Society of America, Inc.

1971 Dr. HENRY S. KAPLAN, M.D.
Professor of Radiology
Stanford University School of Medicine
Palo Alto, California, U.S.A.

1970 Dr. DENIS P. BURKITT, M.C.
1969 Dr. GEORGE H. HITCHINGS
Vice President
Burroughs Wellcome Company, Inc.

1967 Dr. W. RAY BRYAN
Scientific Coordinator in Viral Oncology
National Cancer Institute
National Institutes of Health
Bethesda, Maryland, U.S.A.

1964 Dr. EDWIN E. OsGOOD
Head of the Division of Experimental Medicine and Hematology
University of Oregon Medical School
Salen, Oregon, U.S.A.

1960 Sir ALEXANDER HADDOW
Director
Chester Beatty Research Institute
London, England

1958 Dr. JACOB FURTH
Professor, Department of Pathology
Columbia University
New York, New York, U.S.A.

1956 Dr. LEON O. JACOBSON
Dean, Division of Biological Sciences and the Pritzker School of Medicine
University of Chicago
Chicago, Illinois, U.S.A.
and
Dr. JOHN F. LOUTIT
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