

**TRANSFORMING SCIENTIFIC IDEAS  
INTO INNOVATIONS:  
SCIENCE POLICIES  
IN THE UNITED STATES AND JAPAN**

Edited by  
Bodo BARTOCHA and Sogo OKAMURA  
with assistance of  
Catherine P. AILES

Japan Society for the Promotion of Science

1985

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PROCEEDINGS OF THE THIRD U.S.-JAPAN SCIENCE POLICY SEMINAR  
February 19-22, 1984, Honolulu, U.S.A.

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## PREFACE

This book is a record of the 3rd U.S.—Japan Science Policy Seminar held from February 19 through 22, 1984 at the East-West Center in Hawaii under the auspices of the National Science Foundation (NSF) of the United States of America and the Japan Society for the Promotion of Science (JSPS).

The first seminar in this series was held from September 29 through October 2, 1980 at the East-West Center in Hawaii to discuss the organization of scientific activities, the kinds and amounts of resource allocations made to research projects, and the evaluation of scientific research. An idea of holding this kind of meetings originated from the recommendation made at the 5th Co-Chairmen's Meeting of the U.S.—Japan Cooperative Science Program, held in Washington D.C. in September 1979, that a joint scientific seminar be organized in order to make a comparative study of science policies of the United States and Japan. The Co-Chairmen were firmly convinced that information concerning various sectors in the two countries would be highly valuable in furthering cooperation in basic research under the Cooperative Science Program. The second seminar was held at the East-West Center in Hawaii from August 24 through 26, 1982, to make a more detailed discussion of specific topics. The proceedings of the first and second seminars were published by the JSPS and the Academic Press of the United States, respectively.

To deepen our understanding of the role of the science policies under changing economic and scientific situations the third seminar was held with the main theme "Transforming Scientific Ideas into Innovations". This theme consisted of four aspects: production, communication, application and barriers to the transformation of scientific knowledge. Distinguished scientists and specialists representing academic, industrial and governmental sectors participated in the discussions, which proved very fruitful.

I would like to express our sincere appreciation to the American and Japanese participants, without whose dedicated efforts we could not have conducted such a successful meeting. It is my sincere hope that this book will contribute to a deeper understanding of the science policies of the United States and Japan, and will help to clarify the academic situation in each country, with the goal of improving the implementation of basic research activities.

Sogo OKAMURA  
Director General  
Japan Society for the  
Promotion of Science

## **ACKNOWLEDGMENTS**

Our special thanks go to Dr. Bodo Bartocha, Director of the Division of International Programs of the National Science Foundation. Without his excellent suggestions which led to the establishment of a framework for the seminar topics, as well as his skillful chairmanship during the three-day seminar meeting in Hawaii, we could not have conducted such a successful meeting.

We would also like to express our sincere appreciation to Ms. Catherine P. Ailes, who is a Senior Science Policy Analyst at SRI International. At the request of the National Science Foundation, Ms. Ailes carefully probed into the papers presented at the seminar, particularly those of the Japanese participants, and revised them thoroughly so that the proceedings will be much more readable to English-speaking people.