

Environmental Mutagens and Carcinogens

Editors

Takashi Sugimura

Sohei Kondo

Hiraku Takebe

Environmental Mutagens and Carcinogens

Proceedings of the 3rd International Conference on
Environmental Mutagens, Tokyo, Mishima and Kyoto,
September 21-27, 1981

Editors

TAKASHI SUGIMURA

National Cancer Center, Tokyo

SOHEI KONDO

Osaka University, Osaka

HIRAKU TAKEBE

Kyoto University, Kyoto

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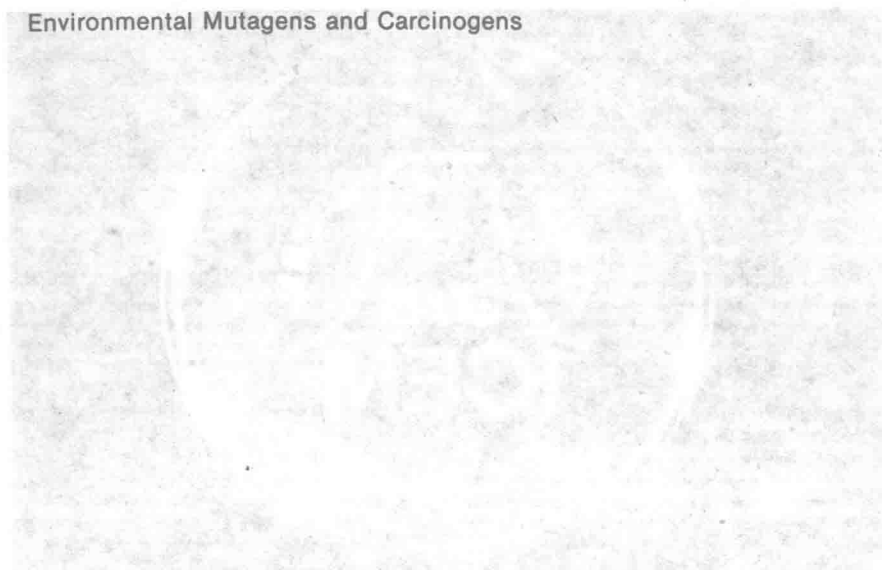
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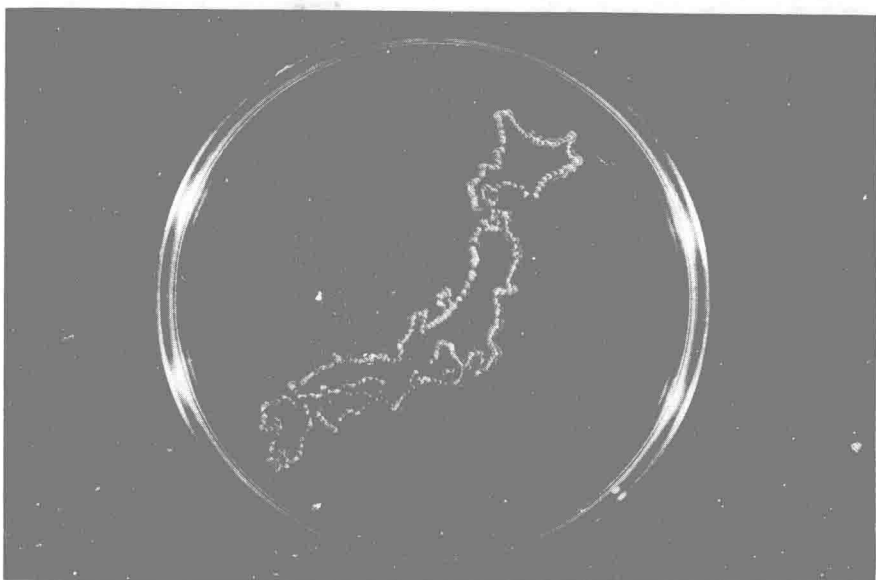
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These "mutagenic drawings" were obtained by suitably streaking sensitive bacteria (*S. typhimurium*, strain TA98) on the surface of top agar incorporating a promutagen (2-aminofluorene), without S-9 mix. 2-Aminofluorene had been previously exposed either to ultraviolet light (upper plate [ICEM]) or to sunlight (lower plate [JAPAN]). For further details on this subject see the article by De Flora in this volume (pp. 527-542).

Preface*

Scientists working on environmental mutagens gathered together on the occasion of the 3rd International Conference on Environmental Mutagens which was held on September 21-27, 1981, in Japan. It was a wonderful opportunity to discuss in depth the issue of environmental mutagens. We hope that everyone made the most of this splendid opportunity to exchange valuable information and perhaps even make some breakthroughs in this field of research.

Our scientists can take pride in the remarkable accomplishments already achieved in the short history of this field. Studies on environmental mutagens cover various areas. Environmental mutagens affect germ cells as well as somatic cells of humans. Not only humans, but also bacteria, plants and animals, are continuously exposed to environmental mutagens, and biological evolution has occurred in the presence of enormous numbers of mutagens. What role have environmental mutagens played in this evolution? Have mutagens always had adverse effects on creatures? Studies on environmental mutagens are intimately involved with the central issues of life science.

In addition, studies on environmental mutagens are very important for devising ways to protect humans from hazardous effects that may produce genetic diseases, birth defects, cancer and aging. Thus scientists in the field of environmental mutagens have the great responsibility of providing the general public and their governments with precise information for procedures to ensure that the health of all humanity is protected from potentially harmful agents.

We on the Organizing Committee in Japan were very glad to have been asked by the International Association of Environmental Mutagen Societies to hold this 3rd International Conference on Environmental Mutagens in Japan. The Conference was held in Tokyo and Mishima, so that the conference members had a chance to see a big city like Tokyo and a small city like Mishima, where traditional Japanese life still remains. We also held an official Satellite Meeting in Kyoto, a historical city where the traditional culture of Japan survives to this day.

I am greatly indebted to all the members of the Organizing Committee. I also wish to thank the various societies, industrial enterprises and many individual persons for the generous financial support that made this conference possible.

*This preface is mainly based on a speech given at the opening ceremony of the Conference.

This book contains plenary and special lectures, symposium papers and selected papers presented at panel discussions and contributor sessions of the Conference and has been edited according to the contents of the papers.

I think that this volume of Proceedings reflects the fruitful scientific outcome of the 3rd International Conference on Environmental Mutagens.

October 1, 1981

Takashi Sugimura

President

Third International Conference
on Environmental Mutagens

IAEMS President's Address

Your excellency Mr. Murayama, your honor Dr. Kurokawa, President Dr. Sugimura, Dr. Auerbach, Dr. Hollaender, Friends and Colleagues. It is a great and profound pleasure to participate in the opening of the Third International Conference on Environmental Mutagens.

It seems like a very short time ago that we met in Edinburgh—and even in Asilomar—where it all started. And yet the development of our science during these years has been tremendous. The International Association now has six regional societies, with a total of close to two thousand members. We have seen a proliferation — and some elimination — of test systems, and an ever growing stream of test results. The mapping of our total environment for mutagens has been going at a tremendous rate. At the same time, a great deal has become known of the mutagenic process, but admittedly our understanding and identification of underlying general principles is still spotty and incomplete.

Our warnings against the threat from mutagens has coincided with the general awakening to the reality of our planet's limits to growth. Our test methods and our concepts of carcinogenic and mutagenic effects have become everyday words in newspapers as well as in regulatory statements.

Concern today is largely about the carcinogenic effects—which mainly affect older people. Genetic effects may be catastrophic but are given less attention. They need attention and more knowledge.

Conferences like this are like fish eye photographic cameras: the whole field of our science is brought together in one picture. Accents, contrasts, profiles and similarities are brought into focus and made recognizable and negotiable. Ideas are created, propagandaed for—or punctured.

As I said, our little corner of the biological sciences has become a fashionable bit of society's establishment. Conferences like this serve — among other things — to keep the scientific wheels turning, and

to prevent a premature petrification of rules and regulations on unsatisfactory bases of facts and understanding.

It is my firm belief that our Japanese hosts will provide all the facilities — as well as much of the science — to make this conference a successful and memorable event which I am happy to declare opened.

Per Oftedal

President
International Association of Environmental
Mutagen Societies

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