TROPICAL MEDICINE

From Romance to Reality

edited by Clive Wood

Tropical Medicine from Romance to Reality

Proceedings of a Conference 12-14 December 1977

sponsored jointly by the Royal Society of Medicine, London; the Wellcome Trust, London; the Royal Society of Medicine Foundation, Inc., New York; the National Institute of Allergy and Infectious Diseases, Bethesda; the John E. Fogarty International Center, Bethesda

Edited by CLIVE WOOD

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1. Introduction

Sir John Dacie

This is the second Anglo-American meeting in a series of three organized jointly by the RSM, the RSM Foundation, Inc., of New York and the Fogarty International Center, Bethesda. The first such meeting was held in Bethesda in November 1976, and the title then was "Priorities for Use of Resources in Medicine". The third meeting of the series was also held there in March 1978, when the subject for discussion was "Issues in Research with Human Subjects".

In addition to the organizations I have just mentioned, this particular meeting has also been sponsored by The Wellcome Trust of London and by the National Institute of Allergy and Infectious Diseases, Bethesda. All these organizations have done much to help with the planning and, indeed, the financing of the meeting and we are grateful to them.

In addition, I should like to mention some individuals who have greatly assisted the organizers in the detailed planning of the meeting. First, there is Dr Krause who is a Director of the National Institute of Allergy and Infectious Diseases and who, in addition, I believe suggested the topic for the meeting.

Then, in alphabetical order, I should like to mention the following, to all of whom we are greatly indebted: Dr Alec Bearn, President of the Royal Society of Medicine Foundation, Dr Katherine Elliott from the Ciba Foundation, Professor Sidney Cohen of Guy's Hospital Medical School, Dr Warren from the Rockefeller Foundation, Dr Peter Williams from the Wellcome Trust, Sir Gordon Wolstenholme, Ciba Foundation, and Professor Woodruff of the London School of Hygiene and Tropical Medicine.

Finally, I should like to add that we are most grateful to the Ciba Foundation and to the Wellcome Trustees who arranged hospitality for the participants in the meeting.

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Richard M. Krause

This conference was conceived three years ago at the New York board meeting of the Royal Society of Medicine Foundation which endeavours to promote a special relationship between the medical profession in the United Kingdom and in the USA; these conferences are one of the mechanisms to achieve that objective. Considerable thought is given to the selection of the topics: we seek to examine critical issues of the day, issues which are common to both countries and yet, more often than not, we pursue solutions, understandably, from different points of view. At these conferences, then, there is opportunity to examine, to debate, to vitalize a common interest. In both countries tropical medicine is a specialty conceived out of the very specific needs of colonialism, here in the United Kingdom a legacy of Bruce-Chwatt, for the USA a legacy of Gorgas and Walter Reed. Now we seek the opportunity for a genuine partnership with all people to solve these intractable problems of tropical medicine, and so we welcome especially our World Health Organization colleagues to this conference. We applaud their leadership under Dr Lucas through the tropical diseases research programme which was initiated two years ago and in which we all participate.

Health in the developing countries will require the reapplication of old principles of public health on the one hand, and the generation of new knowledge through research on the other. The parasitic diseases in particular are the last of the known infections to be deciphered in biomedical and biochemical and biological terms. They represent intricate biological systems involving a multiplicity of hosts and a variety of biological life-styles, and we shall be on our mettle to decipher their mystery and their complexity, but I think that it can be done. It was Albert Einstein who said that Nature hides her secrets through her intrinsic grandeur but not through deceit, so I think that we can decipher the intrinsic grandeur.

We again owe a special word of thanks to the Royal Society of

Medicine for all they have done to help us in this conference, especially Sir John Dacie, the current President. I want to thank also past Presidents who have worked with us in thinking through the scope and nature of this conference, the immediate past President, Sir Gordon Wolstenholme, and before that Sir John Stallworthy. I should also like to thank especially Mr Richard Hewitt for all that he has done in the organization of the conference.

Finally, we at the National Institutes of Health welcome the opportunity to participate in this journey from romance to reality. The position has been embraced by President Carter in his message to the Thirtieth World Health Assembly last May in Geneva when he said: "These efforts will brings us closer to our goal, a world in which all people can live free from fear of crippling and debilitating diseases."

I. Scene Setting

L Scene Setting

3. The Real Face of Medicine in the Tropics

Stephen C. Joseph

Once upon a time there was a garden as full of weeds as of flowers. Three noted specialists were called in to recommend remedies for this situation. The first, a laboratory researcher, said "Until we know much more about the detailed distribution of weed and flower species, and unless we can develop more effective new herbicides and flower stimulants, we cannot do much." The second, a specialist in the organization and delivery of floral arrangements, demurred: "Unless we can make more efficient use of the rakes and shovels that we have, and train more and better gardeners and (especially) garden administrators, we cannot deal with the common weeds which are choking out our flowers." The third pundit, a flora-economist, disagreed with his colleagues. "Flowers and weeds are about equally good cattle fodder, and we probably have too many of both." The three specialists went their separate ways. The researcher turned his attention to the ultra-structure of rose-petals, a field in which much grant support was available. The administrator organized beautiful glass flower exhibits in the capital city. The economist persuaded the politicians to develop a herd of cattle that would require no forage at all. Meanwhile, the garden went on pretty much as before, at some seasons with more flowers and at others with more weeds. . . .

This fable is not without relevance to the focus of this Symposium. We do lack specific biomedical, epidemiological and social-science knowledge and technology with which to attack effectively many of the serious health problems of the developing countries, particularly those countries in which tropical ecologies are combined with rural poverty. The two major health problems which are the subject of this Symposium provide important examples of these gaps. Regarding malaria, increased knowledge is required both of the physiology and biochemistry of the parasite itself and of host-parasite relationships, to provide a basis for the immunological advances that will, it is hoped, lead eventually to