### 2004 AMMA Research Grant | Summary

# THE CONTRIBUTION OF THE AUSTRALIAN MILITARY TO THE SCIENCE AND PRACTICE OF TROPICAL MEDICINE

#### **SUBJECT REVIEW**

Tropical disease has always played a pivotal role in the health and welfare of the majority of the world's population and even today over 100 million individuals are infected with malaria annually. The health of soldiers and sailors was the deciding factor in most hostile encounters up to World War One but till 1600 there was little regard for their welfare. Indeed it was not until the late eighteenth century that most commanders took heed of their medical officers' advice. Subsequently the military have made a seminal contribution to the science of the practice of medicine and tropical medicine in particular.

Tropical medicine evolved as a specialty when it became appreciated that European practice and experience could not be applied directly to the people living and working in the developing world. The specialty assuming prominence when authorities recognized that more soldiers were dying from disease than in battle.

The Australian Military's contribution to tropical medicine is considerable. The work of the Malaria Experimental Group under Brigadier Sir Neil Hamilton Fairly during World War II provided a scientific basis for the control of malaria with drugs and insight into the tissue forms of the malaria parasite. This lay the groundwork for the discovery of the pre-erythrocyte stages of human malaria in the liver. Australian research predates WWII and we continued to lead the world in malaria prophylaxis and management through work and the Australian Army Malaria Institute.

#### PROPOSED RESEARCH

It is the aim of this research project firstly to examine the impact of tropical disease on the outcome of military campaigns through history. Secondly, to detail the emergence of physicians and nurses as vital members of the military force culminating in the formulation of the Royal Army Medical Corps. This section will trace the role of the health services in reducing morbidity and mortality in troops with special emphasis on tropical disease. Key personnel to be studied include Major Ross, Leishman Bruce and Walter Reed. Finally, the role of the Australian Military in the prevention and management of tropical disease will be studied with special emphasis on malaria (1900-2000).

There is no comprehensive study detailing the enormous contribution of the Australian Military to the science and practice of tropical medicine. This project aims to rectify this omission to the literature. It is proposed to publish the work in a series of articles in Australian Military Medicine and perhaps in book form.

## RESOURCE MATERIAL

Bulletin of Malaria Research

Unpublished papers of major D Bruce, Major R Ross. Wellcome Institute, London.

Unpublished papers in Basser Library Australian Academy of Science.

Unpublished papers in the Archives of National Academy of Science, Washington.

Fairley papers

War Cabinet Agendum 106/1943