

# Working Group on Human Biology and Medicine

## Reports to SCAR XXVI, 10-14 July 2000, Tokyo, Japan

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### 1. Attendance

Fourteen members including 12 National Delegates and Representatives and 9 Observers participated in the meeting.

### 2. Welcome and tribute

New members were welcomed and apologies tendered for the members who were unable to attend. The work of Professors Jean Rivolier and Rainer Goldsmith who had retired since the last SCAR was acknowledged. Both have been members of the original SCAR groups for over 40 years, and Professor Rivolier had been an indefatigable Chairman and research organiser throughout that time.

### 3. Report of the last meeting

The report of the last Working Group on Human Biology and Medicine (WGHB & M) at XXV SCAR in Concepción, Chile in 1998 was tabled and approved.

### 4. Medicine

Comprehensive reports on polar medical practice were presented by the National Representatives

The discussions included:

- morbidity and mortality in Antarctica
- illnesses, injuries, and accidents
- epidemiology
- environmental health
- predeployment medical and psychological screening
- validation of screening
- medical support capabilities
- recruitment and retention of doctors including training initiatives
- medical credentialling and skill requirements
- medical systems quality management
- pharmaceuticals and formularies
- guidelines for recommended medical equipment
- medical diagnostic capabilities including imaging and ultrasound
- nutrition
- prophylactic vaccinations

- TB & parasitic infections
- preparation of personnel for isolated duty
- post-Antarctic debriefing
- medevacs and off-ice consultations
- recognition and management of impaired physicians in Antarctica
- substance abuse
- specific medical incident management including complicated obstetric care and cancer diagnosis and therapy
- health and emergency care for tourists and private expeditions
- surgical capabilities and practices
- medical databases
- dissemination of medical information
- confidentiality
- accident analysis
- telemedicine
- videoconference-aided treatment
- communications
- standards of medical care
- medical litigation
- bioethics
- evolution of medical capabilities, standards and equipment
- diving medicine
- aviation medicine
- recreational activities and morbidity
- decedent affairs
- disaster preparedness and response
- blood transfusions
- management of medical crisis events when doctor is patient
- multinational collaborative medical practices
- interaction with the International Union of Circumpolar Health

## 5. Research

Reports on current and new initiatives in research concerned a wide range of fundamental and applied research; discussion included:

- cardiovascular physiology
- cold and altitude-related studies
- immunology
- endocrinology
- uv radiation, photobiology
- neurohumoral studies
- microbiology
- chronobiology
- epidemiology
- nutrition
- health services
- sleep studies
- diving physiology
- Antarctic-space analogue studies
- ergonomics

- psychology and behavioural studies
- cross-cultural research
- nosography study
- disaster response studies

6. The report Preparing SCAR for 21st Century Science in Antarctica was discussed by the WG HB & M. There was wide ranging discussion but strong agreement that the WG HB & M, mindful of the challenge by the SCAR Executive in the 1980s that the Working Group should be disbanded, has evolved into a robust, multidisciplinary body promoting significant, broad-reaching studies and encouraging new and younger investigators. Further, this group was seen as an integral part of SCAR, simultaneously supporting all programs through its operational activities as well as conducting its own research, and should therefore remain a long-term group. There were concerns expressed by some members regarding the projected centralization and expansion of activities and decisions by the Secretariat and the proposed cost infrastructure. All requested more detailed information than outlined in the report, and felt that Chief Officer must be involved in any proposed changes.

7. Discussions took place regarding the need to reassess the Guidelines for Health Care Services in Antarctica. The last position paper on this subject was presented by Dr D Lugg in 1996. The incoming chairman will appoint a subcommittee to work on this project.

8 The WG HB & M considered that it was important and timely to develop a web page and upgraded mailing list. Dr S Pillon agreed to assist in this task. When this has been implemented, requests will go to all WG representatives for material to go on the web page.

9 Since XXV SCAR Dr S Pillon had conducted a review of telemedicine in Antarctica. Current practice was presented and comment made on future directions. It was considered that a small subcommittee be organized to investigate the best practice for Antarctica, and define standards, modalities and procedures to facilitate the establishment of telemedicine for all nations operating in Antarctica. The incoming chairman and Dr S Pillon will organize this subcommittee.

10 The WG HB & M reviewed the current status of Prof Rivolier's study "Criteria Related to the Psychological Selection and Preparation of personnel for Antarctic Service". The current draft of this review of selection methods will be circulated to members of the Working Group for revision prior to subsequent publication.

11 Professor J Hassi, the WG HB & M Representative to the International Union of Circumpolar Health (IUCH) furnished a report on IUCH activities. He will continue to represent the WG HB & M until that group meets in 2002 and a new replacement is elected.

12 A progress report was given by Drs C Bachelard and A Peri on Concordia station and on the proposed medical research program, and there was an invitation for other nations to participate.

13 The initiatives of the Latin American Antarctic medical directors were presented, and collaborative procedures for blood transfusion, emergency surgery and medical evacuation were reviewed.

14 The WG HB & M also acknowledged the efforts of the subcommittee on "The Study of the Specific Nosography (systematic description of diseases) of Manifestations of Maladjustment during Winter-Over". Preliminary results were reviewed, and a number of countries are expanding upon the initial work performed at Dumont D'Urville.

15 The issue of medical preparedness for disaster was reviewed at SCAR XXIII in Rome. The work

discussed has not been completed. The Chairman will appoint a subcommittee to address this issue.

16 The WG HB & M reaffirms its commitment to work with COMNAP and SCALOP on any and all operational medical matters.

17 The assistance of Prof T Morimoto in the organization of the meeting was gratefully acknowledged. As Prof Morimoto is standing down after this meeting, his contributions to the WG HB & M were also noted. Prof H Ohno, the new Japanese representative was welcomed to the group.

18 The WG HB & M requests that the SCAR Delegates approve a meeting of the WG HB & M at SCAR XXVII in 2002.

19 There was a suggestion that there be a meeting of the WG HB & M in 2001, and preliminary plans were outlined.

20 Dr D Lugg, the Chairman of the WG HB & M for the last 16 years, stood down and Dr A Peri took over as the new Chairman. Dr C Bachelard was elected Secretary.

Antonio Peri, Chairman

Claude Bachelard, Secretary

## Recommendation

Welcoming the report Preparing SCAR for 21st Century Science in Antarctica by the Ad Hoc Group on SCAR organisation and Strategy;

Considering the recommendations of the report;

Noting the WG HB & M's

- dual roles of operational medicine and research
- assistance to national programs to maintain high standards of health care
- promotion of successful international Antarctic human biological and behavioural research programs
- promotion and support of Antarctic space-analogue human factors research
- multidisciplinary composition, stability and mentorship of new researchers;

Recognizing the WG HB & M success to date in meeting the challenges of intensive review;

and Considering that the Report by the Ad Hoc Group fails to make a persuasive case for change in the status or objectives of the WG HB & M;

The WG HB & M recommends to SCAR that:

1. no changes be made to the role or structure of the WG HB & M
2. the WG HB & M remain as a long term group and integral part of SCAR:
  - supporting all scientific efforts in Antarctica, and
  - initiating and conducting human biological and behavioural research.