

**AMERICAN MEDICAL RESEARCH EXPEDITION  
TO EVEREST, 1981  
A CALL FOR ASSISTANCE**

Next year a physiological expedition will be going to Mt. Everest with plans to make measurements of human cardiopulmonary function at altitudes far higher than have been attempted before. Historically, physiological expeditions to high altitude have contributed much to our knowledge of the effects of hypoxia on man. Expeditions such as the Anglo-American Expedition to Pike's Peak in 1911, the International High Altitude Expedition to Cerro de Pasco, Peru in 1921-22, and the International High Altitude Expedition to Chile in 1935 made major contributions to our understanding of the physiological effects of extreme hypoxia.

The chief objective of the American Medical Research Expedition to Everest is to obtain information on cardiopulmonary physiology at altitudes above 26,000 feet (7900 m). Such measurements have not been attempted before. However, they are of considerable physiologic interest because there is abundant evidence that the hypoxia of these altitudes is very near the limit of man's tolerance. The first successful ascent of Mt. Everest by two climbers without supplementary oxygen in May, 1978 was an event of great physiologic significance.

Naturally, only relatively simple measurements can be made at these extreme altitudes. However, even these will throw considerable light on how the cardiopulmonary system adapts to this extraordinary environment. We expect to make the first measurements of alveolar gas composition, maximal ventilation, maximal oxygen consumption, heart rate, rhythm, and ECG wave form above 26,000 feet (7900 m).

A small laboratory will be erected on the South Col of Everest (26,200 feet; 8000 m). Maximal work will be studied with a bicycle ergometer and venous blood samples will be taken for analysis at the main laboratory lower on the mountain. In addition, scientists in this South Col laboratory will equip climbers with miniature tape recorders and other equipment so that further measurements can be made up to the summit, at an altitude of 29,028 feet (8848 m). Another laboratory will be set up at 20,000 feet (6100 m). This will be thermally insulated and equipped with electrical power so that more sophisticated measurements can be made there.

The personnel of the expedition will include six experienced Himalayan climbers, six South Col scientists, and six other scientists. The expedition will leave the U.S.A. in July and return in November 1981.

The Scientific Advisory Committee of the Expedition includes D.B. Dill (leader of the 1935 International High Altitude Expedition), Robert F. Grover, Thomas H. Hornbein (Everest summitter in 1963), Nello Pace, and John W. Severinghaus, all of whom are members of the American Physiological Society.

Grants of approximately \$200,000 from the National Heart, Lung and Blood Institute will cover the cost of developing and buying scientific equipment. Another \$200,000 is needed to cover the costs of climbing equipment, food, porters, oxygen, and transportation. We need your help.

Contributions are tax deductible.

Contributors of \$25 or more will receive a postcard from the expedition. Contributors of \$100 or more will also receive a poster of

Mt. Everest. Contributors of \$500 or more will be sent regular newsletters.

Checks should be made out to AMREE, 1981 and sent to Box 9038, Bakersfield, CA 93389 in the reply paid envelope.

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**1981-82 ADVANCED RESEARCH FELLOWSHIPS IN INDIA**

Twelve long-term (six to ten months) and nine short-term (two to three months) research awards, without restriction as to field, are offered for 1981-82 by the Indo-U.S. Subcommission on Education and Culture. Applicants must be U.S. citizens at the post-doctoral or equivalent professional level. The fellowship program seeks to open new channels of communication between academic and professional groups in the United States and India and to encourage a wider range of research activity between the two countries than has previously existed. Therefore, scholars and professionals who have limited or no experience in India are especially encouraged to apply.

Fellowship terms include: \$1,000 - \$1,500 per month, depending on academic/professional achievement and seniority, \$350 per month payable in dollars and the balance in rupees; an allowance for books and study/travel in India; and international travel for the grantee. In addition, long-term fellows receive international travel for dependents; a dependent allowance of \$100-\$250 per month in rupees; and a supplementary research allowance up to 34,000 rupees.

*The application deadline is July 1, 1980.* Application forms and further information are available from the Council for International Exchange of Scholars, Attention: Indo-American Fellowship Program, Eleven Dupont Circle, Washington, D.C. 20036, telephone (202) 833-4978.