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Henry Blackburn, M.D.
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Dear Henry:

Many thanks for forwarding the report of the meeting of the technical group held last September 29-30. It was of special interest in view of the related study proposal which Dr. Newton Birkhead, Chief of the Cardiopulmonary Laboratory here, and his colleagues are preparing. I have suggested to Dr. Birkhead that he correspond with you directly. Instrumentation plays such a vital role in the collection of biological data these days that much is to be gained in the direction of what your group is trying to accomplish if early discussion of competing views is made possible. In this connection, I am hopeful that you will visit us when you are able, and perhaps present a seminar (we could guarantee a modest \$50.00 plus a box of La Voz reeds for the service).

I present the following points in order:

- (1) The Ergocardiography (sic.) Laboratory here uses a Telemedic RKG 100, and also their 2 channel system, the MCM. If you are aware of equipment that is superior to the Telemedic systems, we would appreciate your advice.
- (2) I am pleased that the EKG tapes from Finland were found usable. From memory, there were very few instances where deviations from protocol were advertently or inadvertently made.
- (3) Recent word from Charles Thomas indicates that the galley proof from the proceedings of the Helsinki meeting will be ready soon, so that the report should be available early next year.

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(4) Reference is made in the report of the September meeting to standardizing the work load. The perception data I collected in Finland together with what is known about the effects of feeling states on the cardiovascular system suggest that the term 'standard work load' may be a conceptual abstraction, but I'm glad you propose to examine it. Nowhere in the area of exercise physiology do prejudices reign more securely, and especially is this so with respect to the mode of work - bicycle, treadmill, etc. Attachment to use of the bicycle or treadmill is largely historical - Scandinavians, a very practical people as I came to appreciate, use the bicycle, while American workers have preferred the treadmill. Your former colleague Rowell has recently made a case for the treadmill, but I found it difficult to suppress a smile at the observation: "The increased availability of the motor-driven treadmill to hospitals and clinics offers an easy solution to the problem", (Am. Heart J., October, 1965). Work physiologists in general display a compulsion to render the essential variables constant ("Therefore a test which requires of all individuals of the same sex the same oxygen consumption per kilogram is indeed desirable"). I am always wary of blanket prescriptions, including those regarding methodology. What Rowell says holds true if one is using the traditional experimental approach and wishes to maintain constant all related variables except the experimental variable. But it completely overlooks the possibility of using multivariate analysis where all related variables are allowed to covary. The latter approach is probably closer to conditions as they exist in the natural order of things. I have used both the bicycle and the treadmill, and consider the treadmill more useful in testing young people and sportsmen, and the bicycle for work with older individuals and in the presence of pathological states. The bicycle is less costly and handles the problem of body weight without mathematical manipulation of the data.

I hope you can include Lankenau in one of your future itineraries.

All the best,



Alan J. Barry, Ph.D.
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AJB/mp