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November 23, 1965

TO: Dr. Ancel Keys  
FROM: Dr. Henry Blackburn  
SUBJECT: Needed Equipment

Recorders are widely available. Our problem is to get good data onto tape in a format which will allow their optimal manipulation. This requires a sophisticated control system, not commercially available except in astronautical physiology for astronomical cost.

Rautaharju has developed a control system with 12 input channels and 4 output channels (allowing 4 ECG leads or any combination with pulse waves).

The material costs are \$2500, including 12 operational amplifiers, BCD encoder, wiring boards, switches, etc.

Estimated labor is two months at \$500 per month if we contract with Dalhousie. They will explore estimates at a commercial electronics firm which could build it under their guidance.

To this we should add \$500 for the mechanical pick-up and transducer for pulse waves.