

Copy

February 6, 1965

Professor Ancel Keys
Laboratory of Physiological Hygiene
University of Minnesota
Stadium, Gate 27
Minneapolis 14, Minn.
USA

Dear Ancel,

Thank you for your letter of January 27.

Robin Herron would like to take part in the field work in Italy. He is genuinely interested in the epidemiology of peripheral circulation and a very efficient worker. He prefers to start at the beginning of the field study, March 18, and would be able to spend some 5 weeks in Italy. His wife is expecting a baby, I believe in April, and understandably Dr. Herron would prefer to be in Helsinki by that time. If Andy would like to take care of the rest, the peripheral arteries would be adequately covered.


The cost of travel from Helsinki to Italy and back is in the order of \$ 250 plus, which leaves almost \$ 500 for the stay. 5 weeks equals 35 days, which leaves him with a per diem of appr. \$ 14.

I do not quite appreciate the logic of Finland supporting the field operations in Italy. Hence I would not be too eager to pay the travel of Herron. I draw your attention to the fact that I am nevertheless providing him with his normal salary throughout his stay in Italy. Further, since any eventually forthcoming continuation grant from the NIH will not start to operate before May 1, I have to take care of Roine's and my own trip to Venice anyway from our local funds. I would suggest Flaminio to take care of Herron's travel cost. We did not get all of our valuable foreign support in Ilomantsi and Pöytyä without paying some of their expenses from the local funds.

With best regards,

Sincerely yours,

cc: Dr. H.Blackburn
" A.S.Dontas
" F.Fidanza
" D.Herron


Martti Karvonen

P.S. Cable from Ancel advised. Herron suggests that some Italian should take care of the rest.

February 8, 1965

Dr. Martti Karvonen
Institute of Occupational Health
Haartmaninkatu 1
Helsinki, Finland

Dear Martti, Esko, Allan & Robin:

Pentti has returned to Dalhousie. His visits here are good because they stimulate us, and also because he comes down to earth in actually doing something toward the processing of records, and finds his estimates of time and complications have been optimistic.

In a primitive and inefficient way we now have all XYZ leads digitized and the numerical data packed on digital magnetic tape. We will keep you apprised of developments in the analysis. We are now, in an even more primitive program, averaging, printing out and punching on cards data on the CM5 lead during exercise. Pentti has again accomplished a tour de force.

We've decided it's too much to get things in order for a tape operation in Crevalcore in March, especially since Pentti can't be there. We will work in Montegiorgio, and if any progress in the pulse wave instrumentation develops we will keep you informed. I have not been included in the correspondence between your place and Pentti on this subject and don't know your progress.

Pentti thinks it a good idea to have TMC in Frankfurt check the Mnemotron before Italy. Will you be good enough to inquire about the customs problems and he will inform you where it should be shipped.

On clinical classification I tried to do this last year as on the enclosed. For "new events" since 1959 the combinations of Rose questions on page 2 are O. K. for angina, and the positive response to the severe chest pain question O. K. for infarct (recent or old) if kept separate from the ECG.

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February 8, 1965

Martti, Esko, Allan, & Robin

I think your possible IHD list is satisfactory if better defined, except enlarged heart, which should be eliminated I believe.

Please send us confirmation of receipt of the 1959 ECG tabulation runs.

Cordially,

Henry Blackburn, M. D.

HB/mjj

CC: Dr. Orma

Dr. Keys

Encl.

TYÖTERVEYSLAITOS

FEB 16 1965

INSTITUTE OF OCCUPATIONAL HEALTH - L'INSTITUT DE MÉDECINE DU TRAVAIL - INSTITUT FÜR ARBEITSMEDIZIN

HAARTMANINKATU 1—HELSINKI—FINLAND

DIR.PROF. LEO NORO, M.D.

12th February, 1965

Dr. Henry Blackburn
Laboratory of Physiological Hygiene
University of Minnesota
Stadium Gate 27
MINNEAPOLIS
Minnesota 55455
U.S.A.

Dr. Keys info
please return

Dear Henry:

Thank you for your letter to Martti, Esko, Alan and me, dated Feb., 8th.

Concerning the taping of carotid pulse waves, here is a brief report: The initial period of trial and error would have been shorter and would have involved less complication in exchanging equipment, had Pentti or Hans been more readily accessible. However, I was anxious to get going on the problem so that we would know something more about it, if only for discussion purposes, at the time of the Italian meetings. I have taped about 270 records of subjects from the two mental hospitals near Helsinki--at Nikkila and Kellokoski. On being played back here most of the pulse waves seemed quite "clean." The tapes (3 reels) are now with Pentti and I am awaiting his report. We ^{can} review the situation at the conference in Venice.

With kindest regards,

Yours very truly,

Robin

Robin Herron

TYÖTERVEYSLAITOS

INSTITUTE OF OCCUPATIONAL HEALTH - L'INSTITUT DE MÉDECINE DU TRAVAIL - INSTITUT FÜR ARBEITSMEDIZIN

HAARTMANINKATU 1 — HELSINKI — FINLAND

DIR. PROF. LEO NORO, M.D.

February 15, 1965

*Dr. Henry
info
return*

Dr. Henry Blackburn
University of Minnesota
Stadium Gate 27
Minneapolis, Minn.
USA

Dear Henry,

Thanks for your letter and for the enclosures. I believe that the statement of the working subcommittee on standardization of the ecg for exercise tests is a very useful addition to the volume.

As to the pooling of the ecg, clinical & eventually heart size criteria we evidently need to correspond further. Are you satisfied with the reporting scheme written by Rose for the WHO European Office? I believe that you most probably have a copy of it.

Our roentgenologist has kept our records longer than expected, in order to add the heart volume data to the sheets. After receiving the data we shall immediately start to fill up the initial sheets. There might be a more practical form the coding sheets, too.

I have received almost all the contributions to the conference volume now. Evidently some will drop out, but that is not unusual.

With best regards,

Sincerely yours,

Martti Karvonen

Martti Karvonen

P.S. I am just as much outside the correspondence between Robin and Pentti as yourself. However I believe that their

FEB 23 1965

TYÖTERVEYSLAITOS

INSTITUTE OF OCCUPATIONAL HEALTH - L'INSTITUT DE MÉDECINE DU TRAVAIL - INSTITUT FÜR ARBEITSMEDIZIN

HAARTMANINKATU 1 — HELSINKI — FINLAND

DIR.PROF. LEO NORO, M.D.

February 19, 1965

Dr. Henry Blackburn
Laboratory of Physiological Hygiene
University of Minnesota
Stadium, Gate 27
Minneapolis 14, Minn.
USA

*Dr. keeps info.
P. M. ...*

Dear Henry,

Robin Herron is taking care of the transports of the equipment to the various places. We have asked Flaminio to send us the necessary addresses in Italy. We can do here very little about the customs in either Germany or Italy, but Hans may be able to help us with the formalities, when we are taking the Mnemotron to Frankfurt.

With best regards,

Sincerely yours,

Martti Karvonen

Martti Karvonen

TYÖTERVEYSLAITOS

INSTITUTE OF OCCUPATIONAL HEALTH - L'INSTITUT DE MÉDECINE DU TRAVAIL - INSTITUT FÜR ARBEITSMEDIZIN

HAARTMANINKATU 1 — HELSINKI — FINLAND
DIR.PROF. LEO NORO, M.D.

March 3, 1965

Dr. Henry Blackburn
Laboratory of Physiological Hygiene
University of Minnesota
Stadium, Gate 27
Minneapolis, Minn. 55455
USA

Dear Henry,

Instead of sending to you a pile of the initial sheets, we suggest to send the same information in a more compact form, on large sheets containing the coded information for several men. According to my judgement, it should not be too difficult for your punchers to change their system of reading the information. This method would at the same time better serve our purposes, the transfer of the data to our Hollerith cards.

I enclose copies of our suggested scheme of arranging the data. They are meant to be final; however, some minor changes are possible. Please, let me know, if you wish any changes. If I shall not hear from you in the near future, we shall start with the transcription of the data.

With best regards,

Sincerely yours,

Martti Karvonen

Martti Karvonen

Your Hollerith Deck 41

*can be readily punched in
one format. Thanks. See
you soon.*

H.B.

March 4, 1965

Dr. Flaminio Fidanza
Istituto Di Fisiologia Della Universita
S. Andrea Delle Dame 8
Napoli,
Italy

Dear Flaminio:

I'm sure you will find 12 bottles of ECG paste rather than 6 in the air mail carton we sent you. Another 12 were sent surface mail on February 8th.

On March 1st the extra spirometry mouthpieces & paper & pipettes you needed were sent air mail.

Tomorrow I am sending 8 Welsh infant-type ECG electrodes. Dr. Lamm may want to use them. On the other hand, he may figure a better way of mounting the chest electrodes & should have freedom to do so.

I enclose form 10 which you already have thoroughly completed on the deaths. I suggest you have copies of it in the examination room for the physicians to complete if there is a significant interval illness or hospitalization. I suggest after your "Questionario Sulle Malattie CV & Resp" that the examiner ask:

- 1) "Have you visited a doctor or hospital since we examined you 5 years ago?"
- 2) If no, "Have you had any illness since we examined you 5 years ago?"

If yes, the details can be entered on form 10.

You did not mention whether you had obtained the rental 4-channel Elema machines. We are no longer in a position to beg for loaned apparatus from Elema. I was sure I had convinced you in December the necessity, for an efficient operation & comparability, to rent two four-channel Elemas. One four-channel with your 2-channel as a spare is only as a last resort. It is very bad to use 2 different models & recording formats, & the 2-channel operation is absolutely too slow both for recording & for reading.

March 4, 1965
Dr. Flaminio Fianza
Page 2

Sorry I can't be there. Regards to Tratt Giulia. I enclose a note to
Dr. Lamm.

Regards,

Henry Blackburn, M.D.

HB/mjj
Encl.

March 16, 1965

Prof. H. Denolin
Hopital Universitaire St-Pierre
Brussels, Belgium

Dear Prof. Denolin:

It appears that a very good electrode is finally available to us. We have been quite successful with the Beckman biopotential skin electrodes, and I can recommend them highly. I would suggest that you order and try:

- 1) a set of electrodes with 18 inch (for telemetry) and longer leads (for coupled recording),
- 2) 100 adhesive collars,
- 3) 1 tube electrolyte gel,
- 4) 1 applicator.

They are rather expensive so we cannot send examples, but are semi-permanent. Dr. Bernard will see them when he comes to the field in Italy.

We also have used a remarkably stable and relatively inexpensive (\$500) telemetry system, with excellent response characteristics, available from Parks Electronics Co.; Beaverton, Oregon. It is superior to Medtronics of Minneapolis.

Regards,

Henry Blackburn, M. D.

HB/mjj

March 19, 1965

Dr. G. Lamm
c/o Matalda Bergami
Via Tomasso Rossi 100
Crevalcore (Emilie),
Italy

Dear Dr. Lamm:

I don't believe there is any major difference between our recommendations and those designed specifically for the W. H. O. studies. There will always be small differences as time goes on.

G. Rose and I are working up this manual together for W. H. O. We should have it in pre-print form by June 1 and will send you a copy.

I am distressed that the ECG equipment is "not in excellent condition." Dr. Fidanza was to obtain a rental 4 channel Elema and a spare. If the ECGs are not good you must simply insist that proper equipment and technical help be obtained from Gorla-Siama in Milan. There is no reason to do the study if the ECG's are not good and I hope you will be given adequate support for this. Please let me know if you are not.

Regards,

Henry Blackburn, M. D.

HB/mjj

Dr. Keys info.

March 23, 1965

Dr. Flaminio Fidanza
Albergo Europa
Corso Vittorio Emanuele 52
Modena, Italy

Dear Flaminio:

I appreciate the problems in your schedule and in our long-distance communications. However, you will find in my letter the complete approval of your translated Rose questionnaire as the only medical history items relevant to our classifying of new coronary events. These questions have been used for all follow-up areas.

The questionnaire parts on chest and leg pain require 2 minutes or less in the usual case and never more than 5 minutes, and must be obtained in all subjects (parts on Dolore da sforzo, possibile infarto and claudicatio intermittens).

We must have following this part of the Rose questionnaire either the questions I sent you ("Have you visited a doctor or hospital since we examined you five years ago?

If no, "Have you had any illness since we examined you 5 years ago?") or Section E of your translated questionnaire.

This is followed by details on Minn. form 10 if answers on interval disability or illness are positive.

This, in turn, is followed by the physical examination and clinical impression as I sent you and here enclose another copy.

The entire procedure including physical examination is only 15 to 20 minutes for the physician. No other history item is required.

Those who have not had the chest and leg pain questionnaire must now be contacted by Imbimbo, or a clerk who has been trained by Menotti to use the questionnaire. It must be administered in a standard fashion by a trained observer, which I thought we had agreed upon and for which I considered Menotti well-equipped to supervise.

Dr. Flaminio Fidanza
March 23, 1965
Page 2

I am sorry you have not gotten the respiratory and smoking history, but will be satisfied with the chest and leg pain questions on all.

Nedra is checking on the ECG paste a second time and we will ship more by air.

The magnetic tape equipment for the Montegiorgio operation will be arriving from Frankfort, Halifax, and Minneapolis. It is University of Minnesota and Dalhousie University equipment to be imported and re-exported after one month. Its total value is around \$12,000. It will arrive during the week of the Venice conference. Please cable me immediately the best address so that its entrance may be facilitated with customs and air freight, and the name of a bonding agent who I can employ to help us get the material imported. We considered sending it to me, care of Puddu in Venice, or care of you in Naples. We must know where to ship it by March 29th latest and I'll be grateful for your cabled advice.

Regards,

Henry Blackburn, M. D.

HB/mjj
Encl.

March 27, 1965

Dr. A. S. Dontas
10, Neofytou Vamva Street
Athens, Greece

Dear Andy:

Thank you for your letter from Crevalcore. We have also heard from Herron and I am glad that things go well in a busy schedule, even though A. C. interference is troublesome.

About Crete, I see no reason why Dr. Ivan Mohacek cannot bring the two-channel Elema from Zagreb. As you know he has agreed to participate in the study in Crete for the full period. In addition, I see no reason why we cannot make available the 3-channel Cardiopan which is in Italy. And it is possible we could arrange to borrow another 2-channel Elema, either the one which is partly ours, at Rome (Dr. Puddu's place), or one of the two at Belgrade (Prof. Djordjevic). It may be difficult to get one of the latter for September-October because the Belgrade group may be working at the same time. Finally, inquiry should be made about renting an Elema in Greece for the work in Crete.

Henry Blackburn and I both plan to be in Crete though I may be unable to stay more than a week or so.

We shall discuss these matters with Christ Aravanis in Venice.

You may like to know that we now have a 2-channel impedance machine which seems to work well, no interference when using both channels simultaneously on the same subject. Here we are increasingly interested in pushing work on plethysmography and hope before long to put the records on magnetic tape with a view to computer-assisted analysis.

All good wishes,

Sincerely,

Ancel Keys, Director

AK:cj
CC: Dr. H. Blackburn
Dr. C. Aravanis