

May 2, 1940

Dr. Donald D. Cummings
University of Colorado
Division of Industrial Hygiene
4200 East Ninth Avenue
Denver, Colorado

Dear Doctor Cummings:

We should be very pleased to have Miss Pekrul visit us at the laboratory at her convenience. It would seem wise if she were to arrange to spend several days at least in Cincinnati and to familiarize herself in detail with our procedures. She may find that it is better to make use of the highly sensitive and precise dithizone method rather than the spectrographic method, although if you have spectrographic equipment available, the method here would be quite satisfactory. In any case, we should be glad to have her and give her an opportunity to see exactly what we are doing.

Referring again to the dithizone method, you may be interested in knowing that we are using such a method in parallel with the spectrographic method, and that we are able to obtain equally good results by the two methods, both having a high degree of sensitivity and accuracy, although for very minute quantities, the spectrographic method is superior by virtue of its higher sensitivity. In either case the methods of analysis are much more precise, generally speaking, than the methods of obtaining samples. It still appears that a number of workers in this field do not realize the extreme difficulties associated with the collection of uncontaminated biological materials. The errors here may be and often are quite large, and as a consequence the final result is likely to be valueless despite the use of highly sensitive and accurate analytical methods.

For practical purposes you may also be interested, I believe, in various methods for the collection of samples of urine, blood and the like. The utmost precaution must be taken in the collection of samples since, under occupational conditions, widespread opportunities for gross contamination of the samples exist. On this account you will have to maintain a very precise technique for the collection of your materials.

Close supervision and rigid precautions will be required to obtain samples that are worth analyzing. We shall go into these matters with considerable care so as to familiarize Miss Pekrul with our technique as well as with the basic difficulties which require such technique or some modification of it.

Cordially yours,

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Robert A. Kehoe, M.D.

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