



## ALDERSON RESEARCH LABORATORIES, INC.

48-14 33RD STREET

LONG ISLAND CITY, N. Y. 11101

EMPIRE 1-8855

April 29, 1965

Dr. James G. Kereiakes  
 Radioisotope Laboratory  
 Cincinnati General Hospital  
 Burnet Avenue  
 Cincinnati, Ohio 45229

Dear Dr. Kereiakes:

This will summarize our discussion yesterday with respect to tissue-equivalent materials, the RANDO Phantom, etc.

1. We will give you an informal price reduction on the fat-equivalent and lung-equivalent slabs, by doubling the shipment at the prices quoted previously.
2. We will investigate the possibilities for bone-equivalent materials. I find that I was in error yesterday in quoting vinyl as having a specific gravity close to that of bone. Its specific gravity is 1.35 compared to bone, which is 1.85 to 1.95. The Z of vinyl is 13.8 compared to published values of bone of 13.8 to 14.0. Teflon has a specific gravity of 2.14 to 2.17. It will take us a few days to obtain the empirical formulae for teflon and the various ingredients of vinyl plastisols, after which we will compute Z's and send you the date for decision as to what should be furnished for bone-equivalent material.
3. On your RANDO Phantom, we will drill our standard 5 mm holes on a 3 cm X 3 cm grid. We will mark, but not drill, the locations for added holes to make a 1.5 cm X 1.5 cm grid. We will furnish a proper size drill, an electric iron "reamer" and instructions for you to make these holes, at a charge of \$10.00. There will be no additional charge over the \$152.00 for the standard grid for marking the intermediate locations. We recommend 200 major Mix-D plugs at \$80.00 per hundred, 25 bone plugs at \$1.75 each and 500 capsules for isotopes or for lithium fluoride at \$16.00 per hundred. The capsules will have outer dimensions of 5 mm in diameter X 2.5 cm long. The inside diameter will be 4 mm with a 2.5 mm thickness on each end. The filling end will have a shouldered plug to fall within the end dimension noted above. We will add a slight chamfer to facilitate cementing the plug to the capsule when used with isotopes. We will

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also furnish a supply of cement at no extra charge. Your order will also include 1,000 assorted data charts at \$31.75. The RANDO Phantom price of \$3,595.00 includes the assembly unit.

We trust that this adequately summarizes our discussion.

We are also returning a copy of your requisition, which I came away with. You will probably want this back.

Sincerely,

ALDERSON RESEARCH LABORATORIES, INC.



Samuel W. Alderson  
President

SWA:lw  
Enc.