

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 4

The School of Medicine

DEPARTMENT OF ANATOMY

February 16, 1956

Albert B. Sabin, M.D.
The Children's Hospital Research Foundation
Elland Ave. and Bethesda
Cincinnati, Ohio

Dear Dr. Sabin:

Your letter of February 13th has just come. I regret not to be able to send you the reprints you request, but I am completely out of them. I had no idea there would be so many requests for them or I would have ordered more.

As to the most important criterion for differentiation of neurons, this is difficult to decide. Dr. Margaret Murray, Dr. Panerat and I hope to get together sometime and see if there is any definite way of distinguishing neurons from glia cells. However, there are certain features which seem reliable to me. Many of the neurons are larger than most of the glia cells. Then too, the neurons are usually more granular. Indeed some of their large processes are full of granules. The processes of neurons are often large and branched in a characteristic way which one learns from the long study of them.

The presence of a nucleolus, which Penfield has given as characteristic of a neuron nucleus, many of us feel does not hold. There are many other cells which have a nucleolus besides the neuron. These characteristics are all for human brain cell -- I have not worked with other forms.

If you could stain for Nissl bodies, that would help as Nissl substance is seen only in neurons. Unfortunately, there is no vital dye for Nissl bodies.

I am afraid this is not very definite, but large neurons are quite easily distinguished and the small ones I try to let alone until there is some more definite criterion for their identification.

Very sincerely yours,



Mary Jane Hogue, Ph.D.

MJH:m