problem was compounded by a series of reports of experiments analyzing the organization of peripheral motor control which appeared about this time (Granit, 1955; Granit and Kellerth, 1967; Kuffler and Hunt, 1952). The results of these experiments showed that one-third of the fibers leaving the spinal cord destined for muscle end in muscle receptors and have, under the experimental conditions, no immediate influence on muscle contraction. What happens when these fibers (called the γ system because they are the smallest in diameter) are stimulated electrically is that a

Fig. 2. A. Cortical response evoked by stimulation of superficial peroneal nerve. Upper trace in the postcentral “sensory” cortex; lower trace in the precentral “motor” cortex. Time: 10 msec. B. Same as A except that stimulus was applied to posterior tibial nerve. Note that the response in the “motor” cortex is practically identical to that in the “sensory” area.

Fig. 3. These responses were obtained on sciatic stimulation after complete resection of cerebellum plus additional resection of cortex of both postcentral gyri. Upper trace, postcentral exposed decorticated white matter; lower trace, precentral cortex. Time: 2 and 10 msec. This indicates that the responses shown in Fig. 2 do not traverse the sensory cortex or the cerebellum on the way to the “motor” cortex.