a testing system less influenced by refractoriness and subnormality of periphery and centre. Facilitation was expressed in multiples of the control in monosynaptic testing. It was clear that a discharge test, such as the one provided by electromyography, indicated reflex activity which did not necessarily run parallel with the amount of facilitation measured in multiples of a control, further, that monosynaptic testing with the aid of the severed nerve of the synergist did not indicate silent periods (depressions and inhibitions) which appeared in the records from the muscle.

GRANIT, RAGNAR, and GUNNAR STRÖM (Nobel Institute for Neurophysiology, Stockholm, Sweden). **Stretch reflexes before and after de-efferentation.**

In decerebrate cats in which the hind limbs had been denervated except for the gastrocnemius nerves, the facilitation of the gastrocnemius monosynaptic response was measured during slow stretch of the gastrocnemius-soleus muscle. The test was applied on to the one gastrocnemius nerve, severed below the electrodes, the stretch impulses arriving to the centre through the other unsevered nerve. The monosynaptic response was led off from a small severed part of the S_1 or L_7 ventral root. These as well as other roots were left intact to begin with. The experiment was then repeated with L_9, L_7 and S_1 ventral roots severed. In this preparation the effect of stretch could thus be tested before and after de-efferentation. It was found that the early facilitation was greater with the roots intact, provided that the initial tension of the muscle was low. High tension tended to make differences before and after de-efferentation than before. The early excess facilitation was seen before the stretch impulses themselves had had time to activate the muscle suggesting that, in decerebrate animals, tonic reflexes may involve the muscle end organs in addition to the muscle fibres themselves.