

Reprinted from

**PROCEEDINGS OF THE
FIRST NORDIC MEETING ON
MEDICAL AND BIOLOGICAL
ENGINEERING**

15.—18. 1. 1970
OTANIEMI, FINLAND

EDITED BY
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Published by the Finnish Society for
Medical and Biological Engineering
Box 25010, Helsinki 25, Finland

PROCESSES REGULATING THE FIRING RATE OF MOTONEURONS

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The lecture will follow Chapter VI in a book by the author, now in course of publication. The title of it is Basis of Motor Control (Academic Press, London & New York, 1970). Thus will be presented (i) the properties of the cell membrane as a generator of impulses, both with transmembrane stimulation from the tip of the intracellular electrode as well as with natural stimuli, (ii) afterhyperpolarisation, (iii) recurrent inhibition, (iv) the role of soma, dendrites and firing zone for the process of firing, (v) investigations on algebraical summation of excitation and inhibition in terms of impulse frequency.