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Altri autori (Persone)	EveredDavid WhelanJulie
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muscle fibres; Neurotrophic interactions in the development of spinal cord motoneurons; The role of muscle in the development and differentiation of spinal motoneurons: in vitro studies; Distinct roles of neurofilament and tubulin gene expression in axonal growth; General discussion I I; Comparison of injury and development in the neuromuscular system

Model for the study of plasticity of the human nervous system: features of residual spinal cord motor activity resulting from established post-traumatic injury Responses of diseased muscle to electrical and mechanical intervention; Final general discussion; Index of contributors; Subject index

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## Sommario/riassunto

Presents new information on the mutual interaction of skeletal muscle fibers and motoneurons at all levels, from the physiological to the molecular. Covers genetic, physiological, and hormonal factors affecting skeletal muscle development, control of acetylcholine receptor gene expression, selection and organization of motoneurons, and remodelling and refinement of synaptic inputs under the influence of muscle-derived growth factors. Also discusses the plasticity of the neuromuscular system during regeneration after injury, and in the modification of muscle properties and movement patterns in

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