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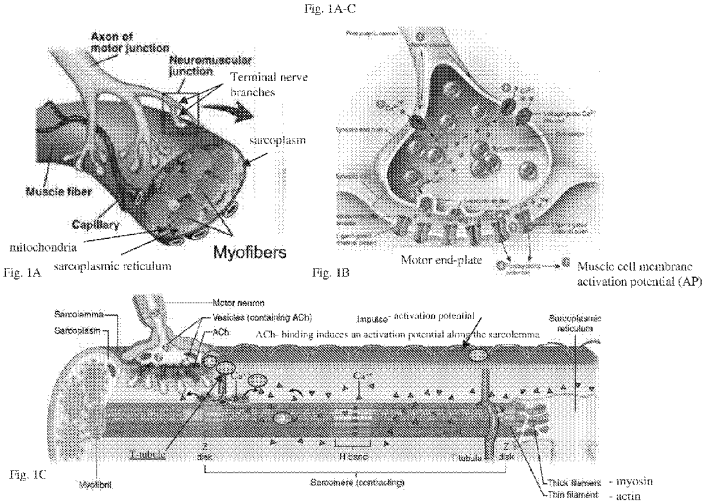
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(54) Title: NEUROMUSCULAR JUNCTION: NMJ-ON-CHIP



(57) Abstract: The invention relates to culturing motor neuron cells together with skeletal muscle cells in a fluidic device under conditions whereby the interaction of these cells mimic the structure and function of the neuromuscular junction (NMJ) providing a NMJ- on-chip. Good viability, formation of myo-fibers and function of skeletal muscle cells on fluidic chips allow for measurements of muscle cell contractions. Embodiments of motor neurons co-cultures with contractile myo-fibers are contemplated for use with modeling diseases affecting NMJ's, e.g. Amyotrophic lateral sclerosis (ALS).

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