



**SUPPLEMENTARY FIG. S6.** Extension of human myoblasts in cell culture chips. Human skeletal muscle myoblasts differentiate anisotropically through 0.5 mm channels up to 10.5 mm long. *Inset (top left)* showing continuity of desmin-positive myotubes, with chips used for coculture studies detailed visually (*center*) and with dimensions (*right*). Coculture chip (*far left*) schematic from AIM biotech website (<http://aimbiotech.com/>). *Bottom two rows* depict full 10.5 mm gel channel with anisotropically differentiated myotubes present throughout. Each image displays 5 mm of cell growth inside channel of chip. IF images depict Desmin (*red*, Alexa 555), alpha-bungarotoxin (*green*, Alexa 488 conjugated), and DAPI nuclear stain (*blue*).