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(54) Title: GENERATION OF MUSCLE-LINEAGE CELLS FROM STEM CELLS

(57) Abstract: Methods and compositions for producing cells expressing CD56/Pax3, CD56Pax7, and/or Pax3/Pax7 are provided herein. In some instances, the method involves contacting a pluripotent stem cell in an *in vitro* culture with one compound, or with two or more compounds at the same time, wherein the contacting the pluripotent stem cell in the *in vitro* culture with one compound, or with two or more compounds at the same time, directly results in generation of cells expressing CD56/Pax3, CD56/Pax7, or Pax3/Pax7. Also provided are methods of using the generated cells. Typically one of the compounds is a wnt pathway activator, such as the GSK3 inhibitor CHIR99021.



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