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(54) Title: NOVEL METHODS FOR PRODUCTION OF THERAPEUTIC MAMMALIAN CELLS AND CELL SPHERES AND COMPOSITIONS OF SAME

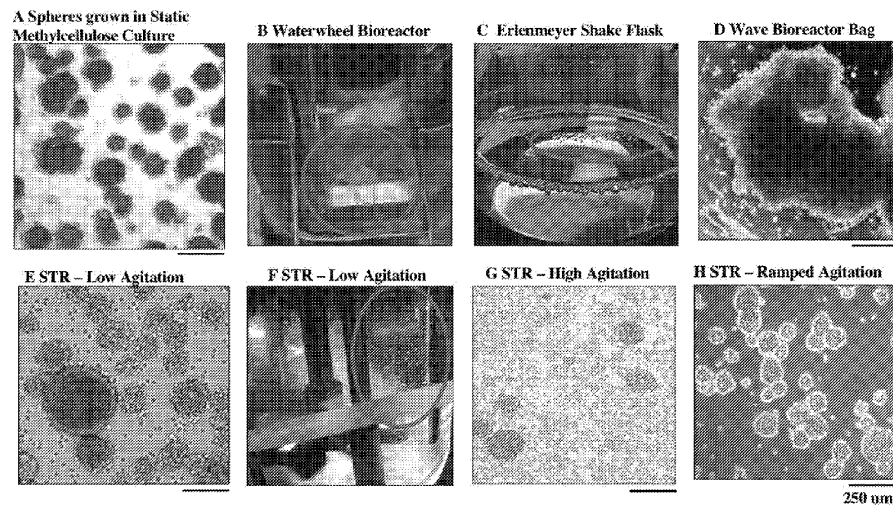


FIG. 1

(57) **Abstract:** Disclosed herein are compositions, devices, methods, processes, and systems for culturing of large quantities of mam-  
malian cells in suspension culture. Also disclosed are unique and surprising cell populations derived from the disclosed methods,  
processes, and systems. In many embodiments, the cells are cultured in suspension in liquid culture media that is agitated to maintain  
the cells in suspension, and agitation increases to maintain cells in suspension while growing and dividing to create cell spheres. The  
disclosed devices, methods, processes, and systems are useful in tailoring characteristics of the resulting cells based on characteristics  
of donor subject / initial cells. The disclosed cell populations are useful in treating subjects with cell based therapies in need thereof  
for various diseases and conditions.

[Continued on next page]

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