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(54) **SEEDING AN ADHERENT CELL BIOREACTOR WITH NON-ADHERENT CELLS INCREASES SEEDING DENSITY LIMIT AND REDUCES REQUIRED EXPANSION TIME**

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(57) **ABSTRACT**

We have found a counter-intuitive way to improve the commercial-scale production of recombinant biological products in adherent-cell bioreactors, which reduces the risk of cell culture contamination, increases total yield and reduces the delay between seeding and harvest, thus minimizing expression product degradation, by inter alia inoculating an adherent culture bioreactor with suspension-adapted producer cells.