【CLAIMS】

1. A pharmaceutical composition for use in the treatment of osteoarthritis comprising a transformed mammalian cell population and an untransformed mammalian cell population,

wherein cells or cell groups included in the transformed mammalian cell population have a particle diameter D_{90} of less than 200 μm,

wherein the transformed mammalian cell is transformed with a transforming growth factor beta (TGF-β) and treated by irradiation,

wherein the cells or cell groups included in the untransformed mammalian cell population have a particle diameter D_{90} of less than 300 μm,

wherein the untransformed mammalian cell is a chondrocyte, and

wherein the pharmaceutical composition is to be administered by intra-articular injection.

2. The pharmaceutical composition according to claim 1, wherein the untransformed mammalian cell population and the transformed mammalian cell population are mixed in a mixing ratio of 1 to 10 : 1 based on the number of cells.

3. A kit for preparation of a pharmaceutical composition

for use in the treatment of osteoarthritis, comprising a mammalian cell population transformed with a transforming growth factor beta (TGF-β) and an untransformed mammalian cell population, wherein cells or cell groups included in the transformed mammalian cell population have a particle diameter D_{90} of less than 200 μm,

wherein the transformed mammalian cell is treated by irradiation,

wherein the cells or cell groups included in the untransformed mammalian cell population have a particle diameter D_{90} of less than 300 μm,

wherein the untransformed mammalian cell is a chondrocyte, and

wherein the pharmaceutical composition is to be administered by intra-articular injection.

4. The kit according to claim 3, wherein the untransformed mammalian cell population and the transformed mammalian cell population are mixed in a mixing ratio of 1 to 10 : 1 based on the number of cells.

5. A method for manufacturing an osteoarthritis therapeutic agent, comprising the steps of:

(1) preparing a transformed mammalian cell population with TGF-β and an untransformed mammalian cell population,

respectively;

(2) selecting cells or cell groups having a particle diameter D_{90} of less than 200 μm included in the transformed mammalian cell population with TGF-β in the above step (1); and cells or cell groups having a particle diameter D_{90} of less than 300 μm included in the untransformed mammalian cell population, respectively;

(3) filling a separate vial with both of the selected cell populations in step (2), respectively; and

(4) mixing the selected cell populations in the vial in step (3),

wherein the untransformed mammalian cell is a chondrocyte,

wherein the transformed mammalian cell population with TGF-β in step (1) is further irradiated,

wherein the mammalian cell is transformed with a transforming growth factor beta (TGF-β), and

wherein the osteoarthritis therapeutic agent is to be administered by intra-articular injection.

6. The method according to claim 5, wherein the mixing in step (4) is to mix the untransformed mammalian cell population and the transformed mammalian cell population in step (2) in a mixing ratio or 1 to 10 : 1 based on the number of cells.