

We claim:

1. Use of a population of cultured allogeneic mammalian cells that contain a vector containing a gene encoding a member of transforming growth factor (TGF) superfamily of proteins selected from TGF- β 1, TGF- β 2, TGF- β 3, BMP-2, BMP-3, BMP-4, BMP-6, BMP-7, or BMP-9, in the manufacture of a medicament for treating osteoarthritis, wherein the cultured allogeneic mammalian cells that contain the vector are human embryonic kidney cells; and wherein said medicament is to be transferred by intraarticular injection to an arthritic joint space of a mammalian host with a pharmaceutically acceptable carrier, such that the activity of the population of cultured allogeneic mammalian cells within the joint space results in regenerating connective tissue.
2. The use according to claim 1, wherein the vector is a viral vector.
3. The use according to claim 2, wherein the viral vector is a retroviral vector.
4. The use according to claim 1, wherein the vector is a plasmid vector.
5. Use of an in vitro population of cultured allogeneic mammalian cells that contain a vector containing a gene encoding a member of transforming growth factor (TGF) superfamily of proteins selected from TGF- β 1, TGF- β 2, TGF- β 3, BMP-2, BMP-3, BMP-4, BMP-6, BMP-7, or BMP-9, in the manufacture of a medicament for regenerating hyaline cartilage, wherein said medicament is to be transferred by intraarticular injection to an arthritic joint space of a mammalian host with a pharmaceutically acceptable carrier, such that the activity of the population of cultured allogeneic mammalian cells within the joint space results in regenerating connective tissue, and wherein the cultured allogeneic mammalian cells that contain the vector are human embryonic kidney cells.
6. The use according to claim 5, wherein the vector is a viral vector.
7. The use according to claim 6, wherein the viral vector is a retroviral vector.
8. The use according to claim 5, wherein the vector is a plasmid vector.
9. Use of a population of transfected allogeneic mammalian cells in the manufacture of a medicament for regenerating hyaline cartilage, wherein said manufacturing the medicament comprises transfecting in vitro a population of cultured allogeneic mammalian cells with a recombinant viral or plasmid vector comprising a DNA sequence encoding a member of a

transforming growth factor superfamily of proteins operatively linked to a promoter, resulting in the population of transfected allogeneic mammalian cells; wherein the member of a transforming growth factor superfamily of proteins is selected from TGF- β 1, TGF- β 2, TGF- β 3, BMP-2, BMP-3, BMP-4, BMP-6, BMP-7, or BMP-9; wherein the transfected allogeneic mammalian cells are human embryonic kidney cells; and wherein said transfected allogeneic mammalian cells are to be transplanted by intraarticular injection to an arthritic joint space of a mammalian host with a pharmaceutically acceptable carrier, such that expression of said DNA sequence within said joint space results in regenerating hyaline cartilage.

10. The use according to claim 9, wherein the allogeneic mammalian cells are in vitro transfected with a recombinant viral vector.

11. The use according to claim 10, wherein the recombinant viral vector is a retroviral vector.

12. The use according to claim 9, wherein the allogeneic mammalian cells are in vitro transfected with a plasmid vector.

13. Use of a population of transfected allogeneic mammalian cells in the manufacture of a medicament for treating osteoarthritis, wherein said manufacturing the medicament comprises transfecting in vitro a population of cultured allogeneic mammalian cells with a recombinant viral or plasmid vector comprising a DNA sequence encoding a member of a transforming growth factor superfamily of proteins operatively linked to a promoter, resulting in the population of transfected allogeneic mammalian cells; wherein the member of a transforming growth factor superfamily of proteins is selected from TGF- β 1, TGF- β 2, TGF- β 3, BMP-2, BMP-3, BMP-4, BMP-6, BMP-7, or BMP-9; wherein the transfected allogeneic mammalian cells are human embryonic kidney cells; and wherein said transfected allogeneic mammalian cells are to be transplanted by intraarticular injection to an arthritic joint space of a mammalian host with a pharmaceutically acceptable carrier, such that expression of said DNA sequence within said joint space results in regenerating hyaline cartilage.

14. The use according to claim 13, wherein the allogeneic mammalian cells are in vitro transfected with a recombinant viral vector.

15. The use according to claim 14, wherein the recombinant viral vector is a retroviral vector.

16. The use according to claim 13, wherein the allogeneic mammalian cells are in vitro transfected with a plasmid vector.

17. Use of a population of cultured allogeneic mammalian cells that contain a vector containing a gene encoding a member of transforming growth factor (TGF) superfamily of proteins selected from TGF- β 1, TGF- β 2, TGF- β 3, BMP-2, BMP-3, BMP-4, BMP-6, BMP-7, or BMP-9, in the manufacture of a medicament for treating an injury to connective tissue in a joint, wherein the cultured allogeneic mammalian cells that contain the vector are human embryonic kidney cells; and wherein said medicament is to be transferred by intraarticular injection to an arthritic joint space of a mammalian host with a pharmaceutically acceptable carrier, such that the activity of the population of cultured allogeneic mammalian cells within the joint space results in regenerating connective tissue.

18. Use of a population of transfected allogeneic mammalian cells in the manufacture of a medicament for treating an injury to connective tissue in a joint, wherein said manufacture of the medicament comprises transfecting in vitro a population of cultured allogeneic mammalian cells with a recombinant viral or plasmid vector comprising a DNA sequence encoding a member of a transforming growth factor superfamily of proteins operatively linked to a promoter, resulting in the population of transfected allogeneic mammalian cells; wherein the member of a transforming growth factor superfamily of proteins is selected from TGF- β 1, TGF- β 2, TGF- β 3, BMP-2, BMP-3, BMP-4, BMP-6, BMP-7, or BMP-9; wherein the transfected allogeneic mammalian cells are human embryonic kidney cells; and wherein said transfected allogeneic mammalian cells are to be transplanted by intraarticular injection to an arthritic joint space of a mammalian host with a pharmaceutically acceptable carrier, such that expression of said DNA sequence within said joint space results in regenerating hyaline cartilage.