We claim:

1. An isolated sub-population of spore-like cells.

2. The sub-population of spore-like cells of claim 1 expressing one or more markers selected from the group consisting of Oct4, nanog, Zfp296, cripto, Gdf3, UtF1, Ecat1, Esg1, Sox2, Pax6, nestin, SCA-1, CD29, CD34, CD90, B1 integrin, cKit, SP-C, CC10, SF1, DAX1, and SCG10.

3. The sub-population of spore-like cells of claim 2, wherein the cells are isolated from post-natal animal tissue selected from the group consisting of ectodermal, mesodermal and endodermal tissue.

4. The subpopulaton of spore-like cells of claim 3, wherein the post-natal animal tissue is selected from the group consisting of mammalian, avian, reptilian and amphibian tissue.

5 The subpopulation of spore-like cells of claim 4, wherein the tissue is selected from the group consisting of heart, intestine, bladder, kidney, liver, lung, adrenal gland, skin, retina, and pancreas.

6. A method of isolating a subpopulation of spore-like cells comprising the steps of:

(a) isolating spore-like cells from a tissue

(b) culturing the cells in for a time sufficient for expression of one or more markers selected from the group Oct4, nanog, Zfp296, cripto, Gdf3, UtF1, Ecat1, Esg1, Sox2, Pax6, nestin, SCA-1, CD29, CD34, CD90, B1 integrin, cKit, SP-C, CC10, SF1, DAX1, and SCG10, and

(c) identifying and isolating cells expressing the one or more markers.

7. The method of claim 6 wherein the cells are isolated using antibodies specific for the marker.

8. The method of claim 7 comprising the steps of: (a) contacting the population of cells with a binding partner that is specific for a marker, and under conditions sufficient to allow binding of the binding partner to its target, if present, on each cell of the population of spore-like cell; and (b) isolating the marker-positive subpopulation.

9. The method of claim 8 wherein the cells are isolated using fluorescence-activated cell sorting.

CLAIMS

1. An isolated sub-population of spore-like cells expressing one or more markers selected from the group consisting of Oct4, nanog, Zfp296, cripto, Gdf3, UtF1, Ecat1, Esg1, Sox2, Pax6, SCA-1, CD29, CD34, CD90, B1 integrin, cKit, SP-C, CC10, SF1, DAX1, and SCG10, in which the cells remain viable following oxygen deprivation for at least 24 hours.

2. A sub-population of spore-like cells according to Claim 1, in which the cells are isolated from post-natal animal tissue selected from the group consisting of ectodermal, mesodermal and endodermal tissue.

3. A sub-population of spore-like cells according to Claim 2, in which the post-natal animal tissue is selected from the group consisting of mammalian, avian, reptilian and amphibian tissue.

4. A sub-population of spore-like cells according to Claim 3, in which the tissue is selected from the group consisting of heart, intestine, bladder, kidney, liver, lung, adrenal gland, skin, retina, and pancreas.

5. A sub-population of spore-like cells according to Claim 1, in which the cells further express nestin.

6. A method of isolating a subpopulation of spore-like cells comprising the stepsp of:

(a) isolating spore-like cells from a tissue,

(b) culturing the cells for a time sufficient for expression of one or more markers selected from the group consisting of Oct4, nanog, Zfp296, cripto, Gdf3, UtF1, Ecat1, Esg1, Sox2, Pax6, nestin, SCA-1, CD29, CD34, CD90, B1 integrin, cKit, SP-C, CC10, SF1, DAX1, and SCG10, and

(c) identifying and isolating cells expressing the one or more markers in which the cells remain viable following oxygen deprivation for at least 24 hours.

7. A method according to Claim 6 in which the cells are isolated using antibodies specific for the marker.

8. A method according to Claim 7 comprising the steps of:

(a) contacting the population of cells with a binding partner that is specific for a marker selected from the group consisting of Oct4, nanog, Zfp296, cripto, Gdf3, UtF1, Ecat1, Esg1, Sox2, Pax6, nestin, SCA-1, CD29, CD34, CD90, B1 integrin, cKit, SP-C, CC10, SF1, DAX1, and SCG10, under conditions sufficient to allow binding of the binding partner to its target, if present, on each cell of the population of spore-like cells; and

(b) isolating the marker-positive cells to yield a subpopulation of spore-like cells.

9. A method according to Claim 8 in which the cells are isolated using fluorescence-activated cell sorting.