CLAIMS

1. A pharmaceutical composition for maintaining viability of a therapeutic mammalian cell including:

a freezing medium;

a freezing agent comprising dimethyl sulfoxide at 7.5% or lower; and

an organic polymer, wherein the organic polymer is a glycosamino glycan selected from hyaluronic acid, sodium hyaluronate, or hyaluronan, and the therapeutic mammalian cells are stem or progenitor cells.

2. The pharmaceutical composition of claim 1, wherein the medium excludes animal serum.

3. The pharmaceutical composition of claim 1 or 2, wherein the organic polymer is hyaluronic acid.

4. The pharmaceutical composition of any of claims 1-3, wherein the stem or progenitor cells are derived from disc tissue, skin, muscle, intestine, bone marrow, neural, liver, heart, lung, pancreas, articular cartilage, bone, thymus, thyroid, or lymph tissue.

5. The pharmaceutical composition of any of claims 1-4, wherein the stem or progenitor cells are derived from disc tissue, articular cartilage, heart tissue, or bone.