Claims – Fourth Auxiliary Request

1. A prosthetic heart valve for replacing a native valve, comprising:

a collapsible and expandable stent (300) extending between a proximal end (302) and a distal end (304), the stent (300) including an annulus section (310) adjacent the proximal end (302), the annulus section (310) having cells (330) arranged in at least one annulus row, each said annulus row having a same first number of cells (330), the first number defining a first cell density, an aortic section (314) adjacent the distal end (304), the aortic section (314) having cells (334) arranged in at least one aortic row, each said aortic row having a same second number of cells (334), the second number defining a second cell density, the first cell density being greater than the second cell density, and a transition section (312) disposed between the annulus section (310) and the aortic section (314), the transition section (312) having cells (332) arranged in at least one transition row, the number of cells (332) per transition row defining a third cell density that is different from the first cell density and the second cell density; and

a valve assembly (104) disposed within the stent (300),

wherein each cell (334) in the at least one aortic row is directly coupled to ~~a~~both circumferentially adjacent cells (334) in the at least one aortic row.

2. The prosthetic heart valve of claim 1, wherein the first cell density is equal to twelve cells per row.

3. The prosthetic heart valve of claim 1, wherein the second cell density is equal to nine cells per row.

4. The prosthetic heart valve of claim 1, wherein the cells (330) in each said annulus row are smaller than the cells (334) in each said aortic row.

5. The prosthetic heart valve of claim 1, wherein the transition section (312) includes multiple rows of cells (332).

6. The prosthetic heart valve of claim 5, wherein the stent (300) further includes a plurality of commissure features (350) and the transition section (312) includes a plurality of cells (332b) of a first size and a plurality of asymmetric cells (332a) of a second size larger than the first size, each directly adjoining one of the commissure features (350).