CLAIMS

1. An implant which includes: -

a support arrangement for,

receiving and supporting stem cells in a supporting condition;

receiving a medium which includes nutrients; and

receiving a growth factor for encouraging and controlling development of the stem cells,

wherein the support arrangement is capable of being sized and shaped to conform to and be received complementally by an implant zone in a subject; and

wherein the support arrangement includes an internal lattice-type structure defining receiving zones for receiving and supporting the stem cells therein, in the supporting condition.

2. An implant as claimed in claim 1, wherein the receiving zones are in the form of interstices or pores.

3. An implant as claimed in claim 1 or 2, wherein a size of one or more receiving zones are reduced upon hydration of and/or absorption by the support arrangement, thereby facilitating support of the stem cells in the supporting condition.

4. An implant as claimed in any one of the preceding claims, wherein a hole is defined in the support arrangement for allowing insertion of the stem cells into an inner region thereof, wherein the hole extends substantially co-axially the support arrangement and typically two thirds a length of the support arrangement.

5. An implant as claimed in any one of the preceding claims, wherein the support arrangement is manufactured from a natural polymer, wherein the natural polymer is in the form of collagen.

6. An implant as claimed in claim 5, wherein the collagen is in the form of resorbable collagen, wherein the resorbable collagen includes crosslinked type 1 collagen.

7. An implant as claimed in in any one or more of the preceding claims, wherein the stem cells are at any stage of differentiation toward being a specific cell-type of interest, wherein the stem cells include a mixture of stem cells at various stages of differentiation.

8. An implant as claimed in claim 7, wherein the mixture includes any one or more of the group including undifferentiated, determined, partially differentiated, and fully differentiated stem cells, wherein the partially differentiated stem cells are stem cells exhibiting early morphologically distinct characteristics of being neural cells.

9. An implant as claimed in any one of the preceding claims, wherein the stem cells have a concentration in a range of 150 000 to 1 500 000 per $1cm^3$ of material of the support arrangement.

10. An implant as claimed in any one of the preceding claims, wherein the stem cells are in the form of any one or more of the group including embryonic stem cells (ESCs), mesenchymal stem cells (MSCs), hematopoietic stem cells (HSCs), neural stem cells (NSCs), induced pluripotent stem cells (iPSCs), dental pulp stem cells (DPSCs), olfactory ensheathing cells (OECs), cancer stem cells (CSCs) and human foetal brain neural stem cells (hNSCs).

11. An implant as claimed in claim 10, wherein the MSCs are selected from the group including, bone marrow mesenchymal stem cells (BM-MSCs), human umbilical

cord-mesenchymal stem cells (HUC-MSCs) and adipose-derived mesenchymal stem cells (AD-MSCs).

12. An implant as claimed in claim 10, wherein the NSCs are in the form of any one or more of the group including neural progenitors, neutral crest cells, and Schwann cell precursors.

13. An implant as claimed in claim 10, wherein the stem cells are in the form of MSCs, wherein the MSCs are in the form of AD-MSCs, and wherein the AD-MSCs are identifiable by an expression of positive molecular markers selected from any one or more of the group including, CD73, CD90 and CD105.

14. An implant as claimed in claim 10, wherein the stem cells are in the form of MSCs, wherein the MSCs are in the form of AD-MSCs, and wherein the AD-MSCs are identifiable by an expression of negative molecular markers selected from any one or more of the group including, CD34, CD116, CD19 and CD45.

15. An implant as claimed in any one of the preceding claims, wherein the growth factor is selected to encourage and control development of the stem cells in the implant and/or any other endogenous stem cells in the region of the implant zone, wherein the growth factor is in the form of any one or more selected from the group including, enzymes with kinase or phosphatase activity, tyrosine kinase activity, cytokines, lipid-soluble steroid hormones, nitric oxide, oligodendrocyte growth factor and reactive oxygen species (ROS).