CLAIMS

1. A method of integrating a biological tissue with a vascular network *in vitro*, comprising coculturing a biological tissue with vascular cells and mesenchymal cells, wherein the biological tissue is cocultured with vascular cells and mesenchymal cells without using scaffold materials on a substrate or on a plate of such a shape that cells gather in the bottom.

2. The method of claim 1, wherein by coculturing the biological tissue with vascular cells and mesenchymal cells, the biological tissue is integrated with a vascular network so that the function of the biological tissue is maintained and/or improved.

3. A method of evaluating a drug, comprising *in vitro* coculturing a biological tissue with vascular cells and mesenchymal cells, wherein the biological tissue is cocultured with vascular cells and mesenchymal cells without using scaffold materials and using the cocultured biological tissue for drug evaluation on a substrate or on a plate of such a shape that cells gather in the bottom.

4. The method of claim 3, wherein by coculturing the biological tissue with vascular cells and mesenchymal cells, the biological tissue is integrated with a vascular network so that the function of the biological tissue is maintained and/or improved.

5. A biological tissue which has been integrated with a vascular network by *in vitro* co-culturing of the biological tissue with vascular cells and mesenchymal cells, without using scaffold materials for use as a regenerative medicine on a substrate or on a plate of such a shape that cells gather in the bottom.

6. The biological tissue of claim 5, which is to be used for preparing a tissue or an organ.

7. The biological tissue of claim 5, which is to be used for regeneration or function recovery of a tissue or an organ.

8. The biological tissue of any one of claims 5 to 7, wherein the biological tissue

differentiates into a tissue or an organ with vascular networks upon transplantation into a living body.