CLAIMS

What is claimed is:

1. Use of a trace element for the manufacture of a kit for inducing at least two events of tissue repair in an individual having a tissue injury, wherein the trace element is formulated for delivery to the site of injury, optionally wherein at least one event of the tissue repair comprises:

(a) inducing the migration of stem cells to the site of injury, optionally wherein the stem cells are bone marrow mesenchymal stem cells;

(b) inducing differentiation of stem cells at the site of injury;

(c) inducing tissue regeneration at the site of injury;

(d) inducing a signaling molecule that triggers tissue regeneration;

(e) reversing damage at the site of injury; or

(f) reconstruction of the microenvironment of neurofibrial cells and neurosecretory cells at the site of injury .

2. Use of a trace element for the manufacture of a kit for inducing tissue repair or inducing blood vessel growth towards the site of injury in an individual having a tissue injury, wherein the trace element is formulated for direct delivery to the site of injury.

3. The use of claim 1 or claim 2, further comprising stem cells or an inducer of stem cells.

4. The use of any one of claims 1 to 3, wherein the individual has a compromised tissue repair system, optionally wherein:

(a) the individual has a chronic tissue injury;

(b) the individual is deficient in stem cells; and/or

(c) the individual is at least 60 years old.

5. The use of any one of claims 1 to 4, wherein the trace element is selected from the group consisting of copper, iron, zinc, and selenium, optionally wherein the trace element is copper.

6. The use of any one of claims 1 to 5, wherein the tissue is the heart, liver, brain, or skeletal muscle.

7. The use of any one of claims 1 to 6, wherein the trace element is comprised by a microbubble.

8. The use of claim 7, wherein the microbubble is formulated for intravenous administration, and wherein the trace element is released through site-directed bursting of the microbubble at the site of the injury, optionally wherein the site-directed bursting of the microbubble is by ultrasound.

9. The use of any one of claims 1 to 6, wherein the trace element is formulated for injection and stays concentrated at the injection site upon injection, optionally wherein the injection is via a catheter.

10. The use of any one of claims 1 to 6, wherein the trace element is comprised by an implant, optionally wherein:

(a) the implant is coated with the trace element, or

(b) the implant is selected from the group consisting of a stent, a plate, and a membrane.