## Unlocking the self-healing potential of tissues
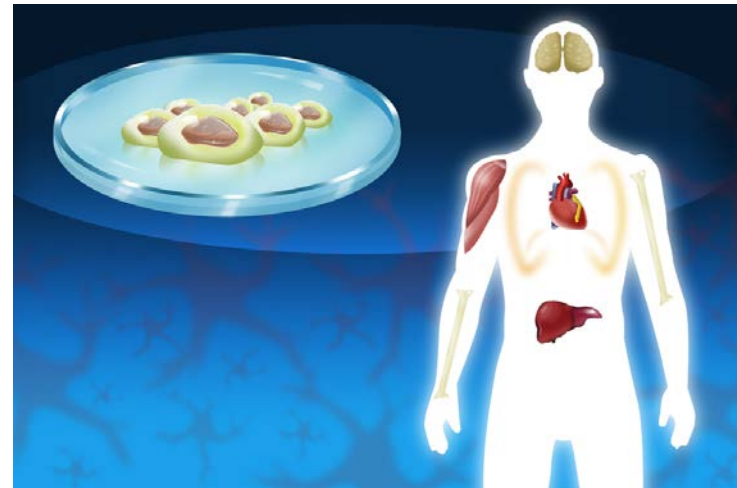
### The Invention

The ability to boost and direct natural processes to regenerate tissues following injury or disease would have a major impact on modern medicine.

Although all tissues have some regenerative capacity, the number and efficiency of the precursor-type cells responsible for self-healing (cells which can develop into any other cell types) is limited and decreases with age.

Using a naturally occurring growth factor in combination with an approved anti-cancer compound, our researchers have developed a unique culture protocol that can reprogramme certain mature cells to populations of special super cells that can effect tissue regeneration.

### Key Benefits

- Can use any mature cell in the body of mesenchymal origin (cells that develop into tissues of the circulatory system, as well as connective tissues, such as bone and cartilage).

- Significant populations of reprogrammed super mesenchymal stem cells can be cultured in only a few days.

- The holy grail of tissue regeneration - in situ tissue reprogramming (without need to culture cells ex vivo) is now within reach.

- The use of the naturally occurring growth factor together with an approved drug potentially provides for expedited regulatory approval.

- Demonstrated effectiveness in proof of principle in-vivo mouse spinal fusion studies.



### The Opportunity

We are seeking potential research collaborators and pharmaceutical industry partners to further develop the invention.

### Intellectual property status

 *"A method of generating cells with multilineage potential"* is covered by PCT/AU2013/001476 Patent Application and available for licensing on an exclusive basis.

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