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OUR RESEARCH

Stem Cells Australia was established in 2011 to discover how to regulate stem cells. The initiative is now poised to harness the immense potential of stem cells for new diagnostic, therapeutic and biotechnological applications.

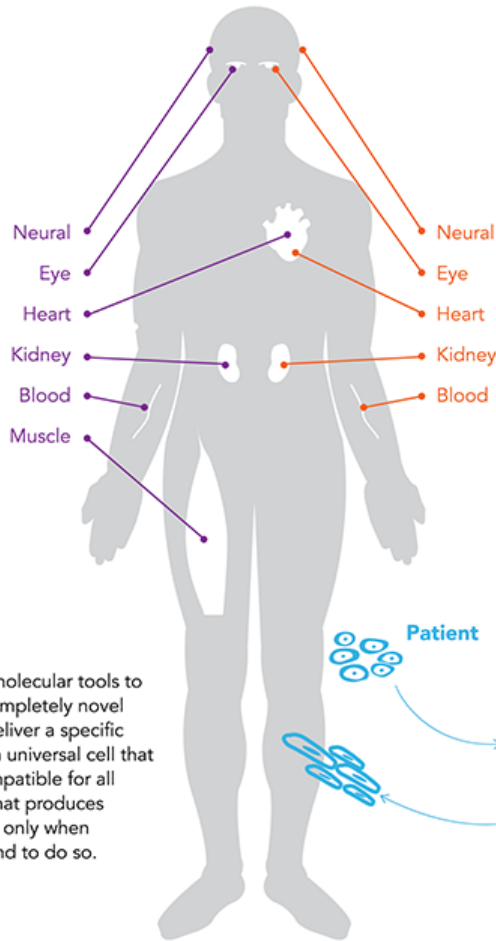
Our stem cell medicine agenda is anchored in three pillars of research and translation: [Regenerative Medicine](#), [Disease Modelling](#) and [Designer Cells](#). Each program builds on key outcomes generated during the initial seven years of Stem Cells Australia funding, and is underpinned by four enabling activities: Engagement, Ethics and Policy; Clinical and Commercial Translation; Capacity-building and Training; and Infrastructure.

The extension of support from the Australian Research Council has allowed Stem Cells Australia to expand and target its scientific portfolio towards medical and technological advances. It is also facilitating the broadening of the Stem Cell Australia membership network to become truly national.

In parallel, the network is continuing to track and discuss the important social and regulatory implications of this research through its [Engagement, Ethics and Policy Program](#), as an essential component of this initiative.

**THEME 1:
Regenerative
Medicine**

Seeks to develop new therapies by either recruiting stem cells within organs to promote repair, or administering new cells and tissues made from stem cells to restore normal function after disease, illness or injury.

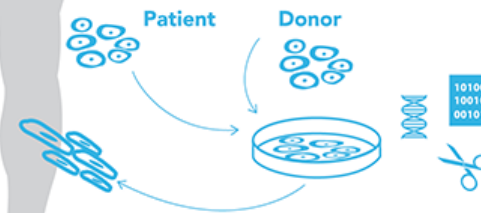


**THEME 2:
Disease
Modelling**

Delivers greater understanding of development and disease, providing a platform for testing potential new drugs. Tissues created from patient-derived stem cells will drive tailored approaches to diagnosis, disease monitoring and treatments.

**THEME 3:
Designer Cells**

Uses a combination of molecular tools to design and construct completely novel types of cells, built to deliver a specific function. For example, a universal cell that is engineered to be compatible for all transplant patients, or that produces therapeutic compounds only when given a specific command to do so.



The research conducted by Stem Cells Australia is funded through an Australian Research Council Special Research Initiative which provides funding for new and emerging fields of research and builds capacity in strategically important areas.



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