

Australia is a global leader in stem cell science and we want to keep it that way. Australian researchers are committed to understanding and developing the potential of stem cell medicine, building the evidence, trialling potential treatments, and translating the findings into practical outcomes that benefit us all. The only proven stem cell treatments to date are bone marrow transplants (for leukaemia, marrow failure, inherited immune deficiencies, some metabolic disorders, and some auto immune disorders), and grafts of skin grown in culture from skin cells, for extensive burns.

In recent times. Australian researchers have been searching for ways to bioengineer eardrums, treat eye diseases, reverse many injuries, and to even heal the brain. In order to do this. we need further funding to research stem cell treatments. Please consider donating today to help honour the achievements of Australian stem cell science. Further research will allow them to deliver accessible and safe treatments to all Australians in need.

Read more about the incredible journeys into stem cell medicine, happening right under our nose.

## **Kathryn Davidson**

Kathryn is turning skin cells into eye cells to study age related macular degeneration, an incurable form of blindness that costs the Australian economy \$5.15 billion per year. She hopes her research using stem cells will help solve the mystery of what causes this common, poorly understood condition. Kathryn says. "We need to know how and why certain retinal cells die. Then we can start to think about early diagnosis and treatment."

Kathryn is a National Stem
Cell Foundation of Australia
supported stem cell researcher.
A Foundation grant enabled
Kathryn to return to Melbourne
from Seattle to join the Neuroregeneration team at the Centre
for Eye Research Australia
(CERA), at the Royal Eye and Ear
Hospital.



## **Stephanie Watson**

Stephanie and her colleague Nick Di Girolamo led the first team to develop a relatively safe and easily performed technique for the transplantation of a person's own corneal stem cells to treat a condition in which the cornea, the transparent window into the eye, becomes cloudy from blood vessels growing over it. Corneal stem cells are taken from a person's healthy eye and cultured so they coat a special contact lens. The lens is placed on their damaged cornea to transfer the cells and regrow a clear healthy cornea. Having completed a clinical trial, the goal is to now make the treatment available for patients.

## **Sharon Ricardo**

Sharon Ricardo's team made a world-first breakthrough where they successfully made the first stem cells derived from adult kidney cells. The team can now create a range of kidney cell types, while also creating models of genetic kidney diseases, and use these cells in important drug testing. One in three Australians is at risk of developing chronic kidney disease. With diabetes being the single most common cause of kidney failure, stem cell science has a role to play in diabetes and kidney health. Sharon's work at Monash University is edging closer to finding better treatments.



Sharon Ricardo



Stephanie Watson

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You may have read about leading sports figures benefiting from stem cell treatments, or seen TV and newspaper stories where someone is "cured" by a stem cell treatment. Besides this, stem cells are advertised as the "unique ingredient" in face creams, weight-loss products, and anti-aging treatments.

Many of these stem cell treatments advertised and offered are unethical, without rigorous scientific evidence, are not clinically trialed, or proven.

In Australia the Foundation is working to support medical researchers deliver new, viable, and proven stem cell treatments from local medical institutions. You can donate directly to the NSCFA at our website.

www.stemcellfoundation.net.au



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DONATION & INFORMATION MANAGER

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