

NEXT BIOSCIENCES

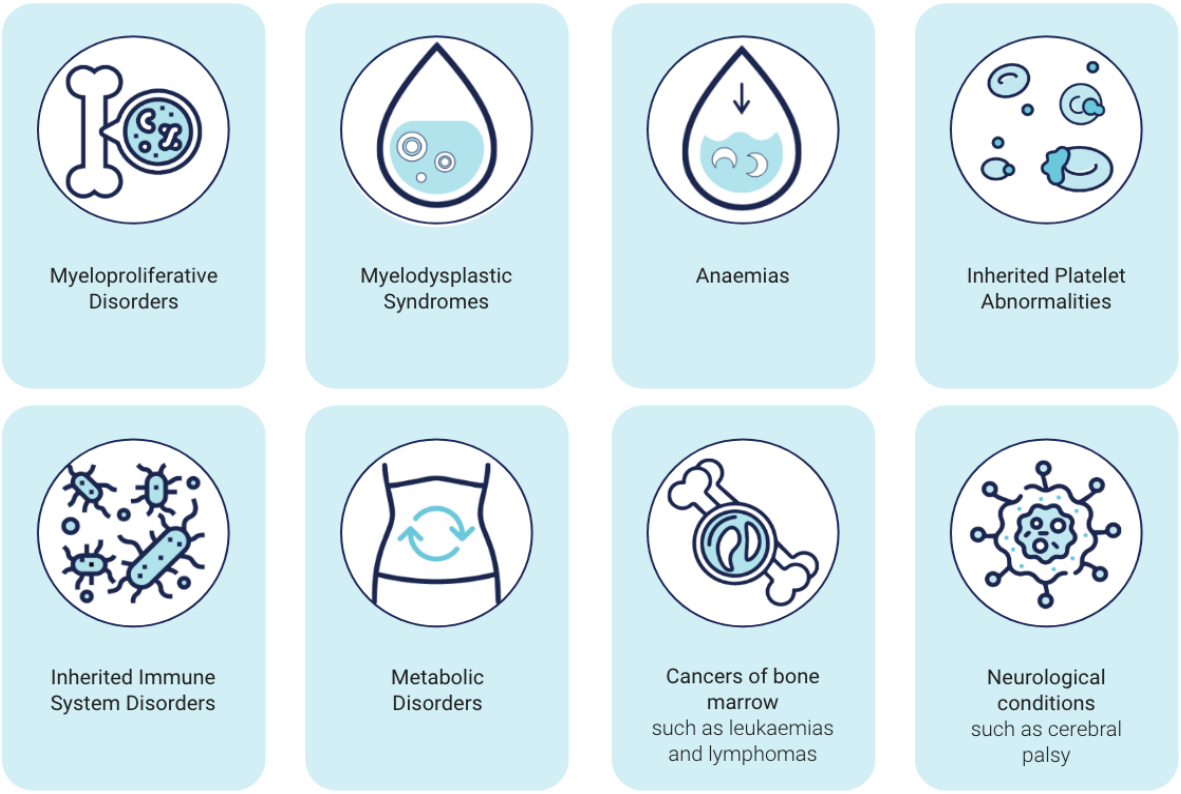
Netcells Stem Cell Banking

Uses for Stem Cells

Cord blood stem cells

Cord blood is a rich source of blood-forming stem cells (haematopoietic stem cells), which are used worldwide in established medical treatments.

These stem cells can rebuild the blood and immune system and are used in the treatment of more than 80 conditions including:



These therapies are well established and continue to save lives around the world.

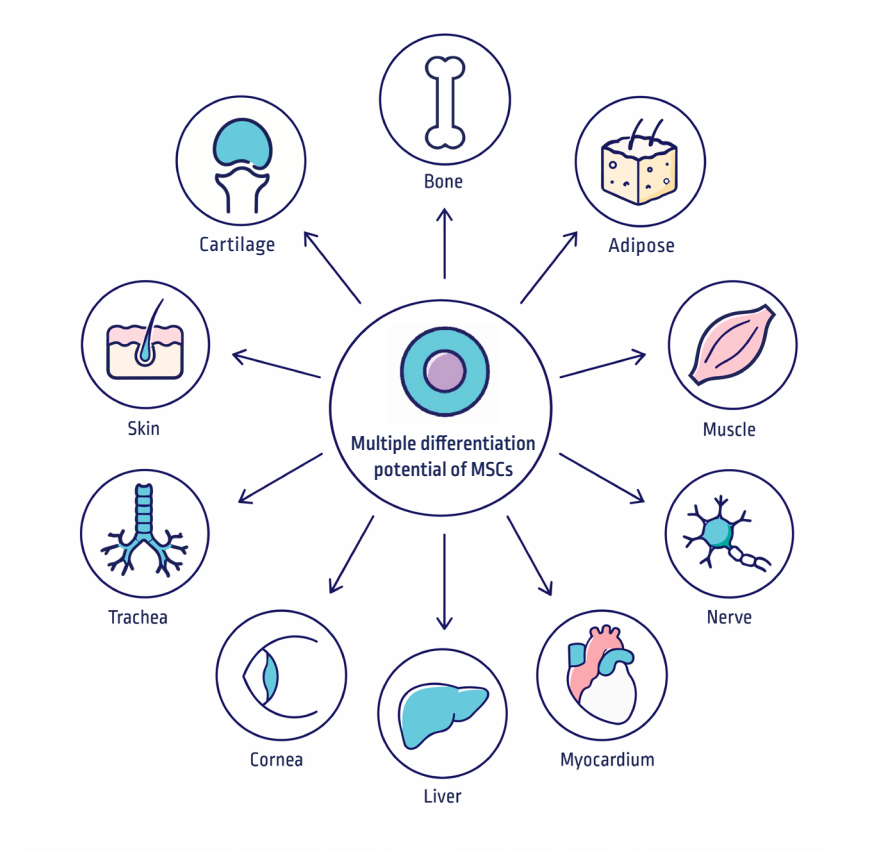
Looking to the future

Researchers are also investigating cord blood stem cells in clinical trials for a growing range of conditions beyond blood-related diseases. While these treatments remain experimental, ongoing research continues to expand the potential future applications of cord blood stem cells.

Cord tissue stem cells

Umbilical cord tissue is a rich source of mesenchymal stem cells (MSCs).

Unlike blood-forming stem cells, MSCs have the ability to develop into specialised cell types such as bone, cartilage, muscle, skin, and nerve-supporting cells. They also possess powerful anti-inflammatory and immune-modulating properties, making them an exciting area of regenerative medicine.



Researchers are currently investigating MSCs for applications in:

- Orthopaedics
- Sports injuries
- Autoimmune diseases
- Neurological conditions
- Tissue repair and regeneration
- Chronic inflammatory disorders

Emerging applications

Research into umbilical cord stem cells is advancing rapidly across the world. Although many applications remain under investigation, promising results continue to emerge in areas such as:

- Type 1 diabetes
- Autism spectrum disorder (ASD)
- Cerebral palsy
- Stroke recovery
- Autoimmune diseases
- Heart disease
- Neurological disorders
- Tissue engineering and regenerative medicine

As scientific knowledge grows, so does the potential value of preserving these unique stem cells.

Recent Netcells-specific releases



Autism spectrum disorder (ASD)

From April 2025 to August 2026, six patients received cultured stem cells derived from their own stored umbilical cord tissue. These were successfully transplanted to support therapeutic management of symptoms associated with ASD.



Muscular skeletal injuries

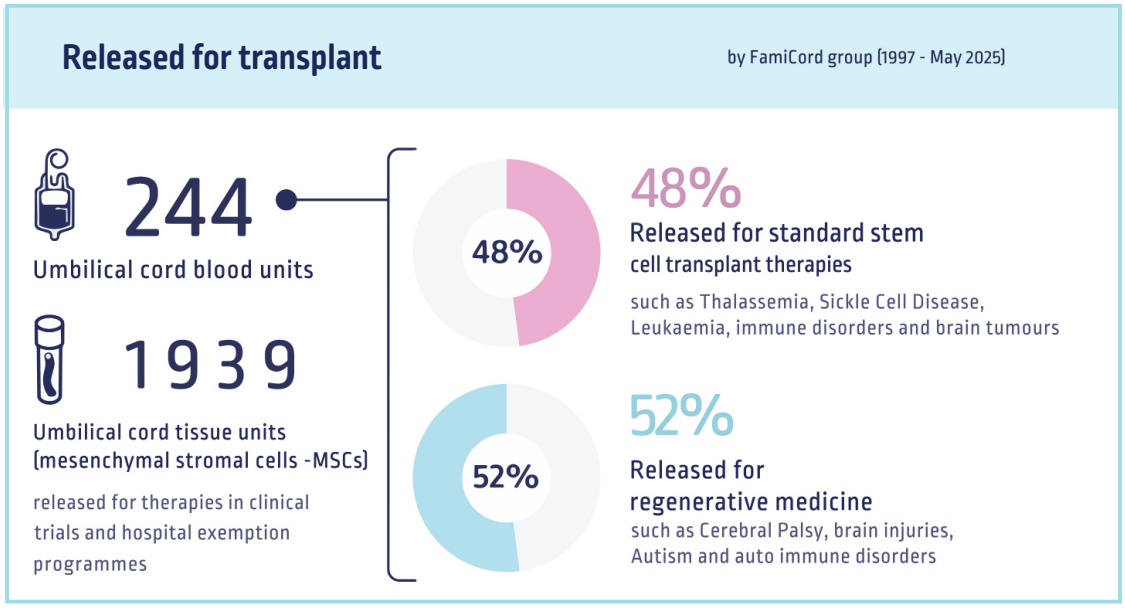
In March 2026, two patients were treated using cultured MSCs. One for a shoulder injury (rotator cuff tear) and the other to treat chronic neck pain after a motor vehicle accident. These stem cells were cultured from donor tissue from a close family member.

These cases represent encouraging early experiences. Further clinical research is needed to establish long-term effectiveness and broader clinical use.

International releases by Smart Cells

Netcells is part of the FamiCord Group, Europe's largest network of stem cell banks, through its sister bank, Smart Cells International, with facilities in the UK and Dubai.

Across the FamiCord network, thousands of stored stem cell units have been released for therapeutic use, contributing to both established transplant medicine and advancing clinical research worldwide.



Click here to learn more about diseases that can be treated with cord blood, as well as conditions being investigated in clinical trials using cord blood and cord tissue.

References

1. https://nextbio.co.za/Portals/0/adam/SharedDocuments/newsletters/netcells-parent-newsletter-2025-q4.pdf
2. https://parentsguidecordblood.org/en/news/famicord-europes-largest-cord-blood-bank-and-largest-manufacturer cord-tissue-msc-therapy
3. https://cells4life.com/2024/09/key-takeaways-from-umbilical-cord-stem-cell-trial-research/
4. https://nextbio.co.za/blog/details/where-does-cord-blood-go-global-trends-in-wit-2
5. https://parentsguidecordblood.org/en/diseases