



## NATURE'S IMMUNE MESSENGERS

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When I was about nine years old, I witnessed the birth of a new foal. It was important for the newborn foal to get a bellyful of colostrum because it contained mom's immune memory and more. Little did I realize that much later, I would do research on colostrum transfer factors.

Nature has empowered the immune systems of all higher animals with the gift of immune memory. Without it, each time the body experienced a threat, the immune system would have to work to form a new immune response. New immune responses take time, and microbial health threats exploit the time lag if they can.

In 1949, Dr. H. Sherwood Lawrence discovered that the contents of immune cells, when harvested and injected into another person, could transfer immune memory. The observation amazed Dr. Lawrence so much that he named the molecule transfer factor.

Transfer factors are small, unique polypeptides that encode the identity of a microbe in 3D. They create a unique pattern, like a footprint in the sand.



The foot (or health threat) will only fit the impression (transfer factor) created by the immune memory cell. When the real threat comes along and it fits the impression, the immune cell is energized into action. That action is called immune recognition. The immune system then responds and builds even more immune memory cells.

Some of the work I did in the late 1970s and that of other researchers in the 1980s revealed that colostrum is rich in immune memory cells and contains transfer factors. Transfer factors educate naïve immune cells on that critical first day. Plus, transfer factors consumed at any time in life impart this information to immune memory cells. This “continuing education” helps slow “immune senility” that arises year by year.\*

Transfer factors extracted from cow colostrum and chicken egg yolks contribute to the general function of innate or non-memory responses. They also help balance the responses of immune system cells that have already completed important defensive tasks.\*

I am proud that our work at 4Life® has made it possible to harvest cow colostrum and extract transfer factors. We can empower the immune systems of people everywhere and take 4Life Transfer Factor® products to the world.\*

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