

# STROMAL VASCULAR FRACTION AND GROWTH FACTORS CLINICAL APPLICATIONS

**Priscilla Ortiz Porras**

ICM, Costa Rica

**R**egardless of the species, when animals have degenerative pathologies, most of their symptoms can be eased with pills, but the disease will keep progressing until the animal either dies. The pills no longer cause the desired effect and euthanasia has to be performed so the animal doesn't suffer but some organ or organs get affected as a side effect of the long term consumption of the pills, mainly pain killers. The heterologous cell population obtained from the combination of autologous stromal vascular fraction (SVF) that contains an important population of medical signalling cells (MSCs), plus the platelet derived growth factors, has shown to be safe and to be able to induce regeneration in different tissues. On the last years, we have seen that clinical applications in animals with tendons and ligament partial ruptures and osteoarthritis can improve healing and at least enhance the quality of life of the patients treated; these results have been replicated in different species. Have also treated animals with a dead sentence like a horse with severe central nervous system degeneration due equine protozoal myeloencephalitis, or a dog with aplastic anaemia, and see how they survived and have a great quality of life thanks to the treatment. Even the protocols to know the exact quality and quantity of cells to apply, biomolecules and biomaterials to add in order to have the best tissue regeneration are still unknown, responsible clinical use of this therapies had shown great potential, should therefore be integrated to the treatment options offered to owners, mainly on the pathologies where there is evidence of their success, and as a compassionate use, when the patient still has chance of surviving doesn't matter if the current books say there is nothing left to do, we have proved there is much left to write.

[drapriscillaortiz@gmail.com](mailto:drapriscillaortiz@gmail.com)