

# THE MARTIN TRIANGLE™

A simplified framework describing how biologics support the body's natural healing sequence.

Effective healing follows a three phase sequence:

1. Control inflammation
2. Rebuild structure
3. Restore function

With inflammation down-regulated & collagenic differentiation underway, tissue structure stabilizes and function improves.

**FUNCTION**

NanoAer  
NanoXsomes

NanoPRP Jelly  
Nano DPM  
NanoFlex  
NanoFlow

THE  
PARADIGM

**INFLAMMATION**

Healing begins with systemic inflammation reduction followed by focal inflammatory control. Umbilical-cord-derived MSC exosomes support this process by promoting M2 macrophage polarization and reducing inflammatory signaling.

**COLLAGENIC DIFFERENTIATION (CD)**

Once inflammation is controlled, the body begins CD - cellular & extracellular matrix rebuilding. Wharton's Jelly provides a rich scaffold including collagen types I, III, trace II, HA, proteoglycans, and growth-matrix components, supporting broad and durable structural repair.

## SUPPORTING PEER REVIEWED LITERATURE

1. Zhao J et al. MSC-exosomes and M2 macrophage polarization.
2. Teo KYW et al. Exosomes mediate anti-inflammatory M2 phenotype.
3. Arabpour M et al. Exosome-mediated inflammatory phenotype regulation.
4. Wang J et al. MSC-EVs alter macrophage polarization across disease states.
5. Watanabe Y et al. EV-induced M2 polarization (Scientific Reports).
6. Jadalannagari S et al. Decellularized Wharton's Jelly as a 3D scaffold.
7. Gupta A et al. Safety and efficacy of Wharton's Jelly for knee OA.
8. Lai A et al. Wharton's Jelly outcomes in rotator cuff applications.
9. Isa IL Mohd et al. Wharton's Jelly hydrogel with collagen II + HA.
10. Troyer DL & Weiss ML. Primitive stem cell population in Wharton's Jelly.



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Platinum Biologics