

# Protein Concentrate

RegenVET is proud to announce the newest biologic treatment in our regenerative armament for management of arthritic and degenerative conditions. (**Alpha 2 Macroglobulin (A2M) & Interleukin-1 Receptor Antagonist Protein (IRAP or IL-1RA)**).

**Protein Concentrate** injection therapy, uses proven scientific techniques and natural healing methods to successfully treat osteoarthritis at its source. It is used to prevent cartilage breakdown in patients, promote tissue growth and support the overall restoration of an affected joint.



## Alpha 2 Macroglobulin (normal value 1,500 - 1,800 µg/mL)

- Obtain more A2M with less plasma than leading competitors
- Achieve a higher percentage of product yield from plasma
- Increase A2M concentration level per mL
- Comes ready to use in sterile peel pack

## What science tells us about A2M & IRAP for Arthritis

Scientific evidence points to A2M as the key to stopping osteoarthritis at the molecular level. A2M is a Broad Spectrum Multi-Purpose Protease Inhibitor (powerful chemical in destroying proteins that cause arthritis) that captures and inactivates the three major chemicals that lead to joint breakdown and cartilage damage. Once these bad chemicals are trapped by A2M, the body can then quickly eliminate them.

**Take advantage of A2M & IRAP today. Help your patients restore their joint function, reduce pain and achieve a better quality of life.**

### “Identification of $\alpha$ 2-macroglobulin as master inhibitor of cartilage-degrading factors that attenuates the progression of posttraumatic osteoarthritis”

#### Outcomes:

In both normal subjects and OA patients,  $\alpha$ 2 M levels were lower in SF as compared to serum, and in OA patients, MMP-13 levels were higher in SF than in serum. In vitro,  $\alpha$ 2 M inhibited the induction of MMP-13 by IL-1 in a dose-dependent manner in human chondrocytes.

#### Conclusion:

The plasma protease inhibitor  $\alpha$ 2 M is not present in sufficient concentrations to inactivate the high concentrations of catabolic factors found in OA SF. Our findings suggest that supplemental intraarticular  $\alpha$ 2 M provides chondral protection in posttraumatic OA.

Wang, S, et al. “Identification of  $\alpha$ 2-Macroglobulin as a master inhibitor of cartilage-Degrading factors that attenuates the progression of posttraumatic osteoarthritis.” *Arthritis & rheumatology* (Hoboken, N.J.), U.S. National Library of Medicine, July 2014, [www.ncbi.nlm.nih.gov/pubmed/24578232](http://www.ncbi.nlm.nih.gov/pubmed/24578232). Accessed 22 Sept. 2017.