# DO YOU KNOW THE DASUQUIN® DIFFERENCE?



# EXCLUSIVE VETERINARY FORMULATION •

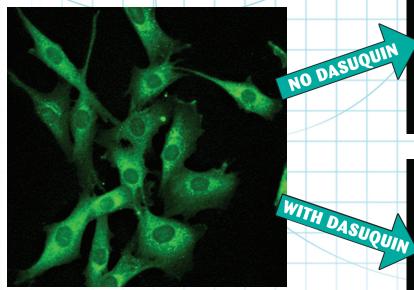
ACTIVE INGREDIENT	BENEFITS OF ADMINISTRATION
Glucosamine (Glu) and Chondroitin Sulfate (CS)	Stimulate cartilage matrix production and inhibit cartilage break- down. Together shown in cell culture research to protect cartilage better than either alone. Also help to support comfort level.
Avocado/Soybean Unsaponifiables (ASU)	Protects cartilage and supports joint comfort. ASU, Glu and CS are shown to work better than Glu and CS alone in cell culture research.
Green Tea Extract	Antioxidant benefits.

## **SUPPORTED BY SCIENCE**

#### THE INGREDIENTS IN DASUQUIN CAN INHIBIT THE INFLAMMATORY CASCADE AT ITS SOURCE:

**NF-kB** is a key signaling agent found in an inactive state in the cell cytoplasm. Once in the nucleus of the cell, activated NF-kB switches on the inflammatory cascade.

#### **NORMAL CHONDROCYTES**



Staining for NF-kB shows it primarily in the cytoplasm, not the nuclei, of the cells.

#### AGGRAVATED CHONDROCYTES WITHOUT ASU+Glu+CS

Intensely green stained nuclei indicate NF-kB is present in the nuclei **starting** the inflammatory cascade.

#### AGGRAVATED CHONDROCYTES WITH ASU+Glu+CS

Show NF-kB remaining primarily in the cytoplasm. With a lack of activated NF-kB in the nuclei, the initiation of the inflammatory cascade has been **inhibited**.

# **BEYOND COX-2 INHIBITION**

COX-2 is involved in the pathway leading to cartilage breakdown, but it is only one of the many inflammatory mediators playing a role in the process. The ingredients in Dasuquin<sup>®</sup> have been shown in cell culture research to inhibit expression of multiple mediators plus enzymes which break down cartilage including:

- TNF-α (Tumor Necrosis Factor-α)
- PGE<sub>2</sub> (Prostaglandin E<sub>2</sub>)
- IL-1β (Interleukin-1β)
- IL-6 (Interleukin-6)
- IL-8 (Interleukin-8)

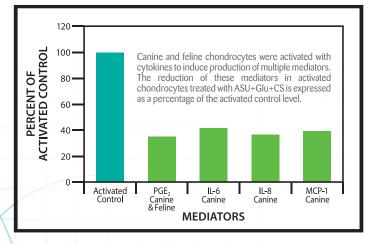
DASUO

DASUQUIN

- MMP-9 (Matrix Metalloproteinase-9)
- MCP-1 (Macrophage Chemotactic Protein-1)

DASUOUIN

#### **SUPPORTING STUDIES:**



# **COMPETITIVELY PRICED**

**Compare Dasuquin cost per day!** Ask for a price comparison chart!

We offer a client rebate program to help keep the costs down for your clients.



B R

**RECOMMENDED B** 

VETERINARIANS

Dasuquin is available in 84 and 150 count tablets and soft chews for dogs and sprinkle capsules for cats.

### THE D<u>ASU</u>QUIN® DIFFERENCE

- Exclusive Veterinary Formulation
- Supported by Science
- Beyond COX-2 Inhibition
- ✓ Economically Priced with Client Rebates
- ✓ Available for All Sizes of Dogs & Cats

# FOR MORE ABOUT D<u>ASUQUIN</u>

- CALL.....1-888-886-6442 for Customer Service.
- CLICK......www.DASUQUIN.com for more product information.
- **CONTACT**.....Your local authorized distributor.
- SCAN......With a smart phone, using code below.



U.S. Patent Nos. 6,797,289 and 8,753,697. For use under U.S. Patent Nos. 8,568,803 and 8,808,770. Additional Patent Pending. AUTRAMAX LABORATORIES VETERINARY SCIENCES, INC. 946 Quality Drive • Lancaster, SC 29720

nutramaxlabs.com • 1-888-886-6442