

Us Too warriors, Metastasis is the process by which PCa spreads to other organs that if not stop will cause the body to fail. It has been one of my goals in directing my cancer fight for 22 years I have focused on in the last 10 years. MMPs are an area of Importance in my bone tissue engineering and dental bonding research.

So What are MMPs ==> They are Matrix Metallo Proteinases see website that follows.

https://en.wikipedia.org/wiki/Matrix_metalloproteinase

What do MMPs do in PCa ??? They degrade extracellular proteins which tend to confine Cancer in place so it does not escape into the veins and get distributed around the body and do harm as it grows. MMPs helps initiate the first step of metastasis by escaping into the body. Aggressive cancer cells have spiky protrusions called Invadopodia that project into extracellular proteins. The tips of these spikes release MMPs which degrade the extracellular proteins and these pike protrudes further and release cancer cells in the holes it drills thru the matrix.

There are 26 MMPs identified of these MMP2 and MMP9 are particularly important in PCa spread. Some of the others play a role PCa, but will be for another night. These two break down collagen and gelatins as they degrade the ECM.

What follows is a list of supplements I take to prevent or slow Metastasis and one reference regarding their effect on MMP2 & 9.

List of **drugs or supplements** which **block MMP2 & 9** break down of ECM with **website** for more info:

Doxycycline (100 mg/day) -

<http://www.sciencedirect.com/science/article/pii/S2352304215000021>

FoTi = Not Weed = Emodin -<http://onlinelibrary.wiley.com/doi/10.1002/med.20095/abstract>

Curcumin - <http://www.nature.com/pcan/journal/v9/n2/full/4500856a>

Grape seed extract and Green tea -

<http://www.ingentaconnect.com/content/ben/emiddt/2006/00000006/00000001/art00003>

Mangosteen-

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3237908/pdf/nihms330582.pdf>

Milk Thistle (Silibinin) -

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4181718/pdf/nihms600499.pdf>

Magnolia Bark - <https://www.ncbi.nlm.nih.gov/pubmed/20460721>

Chaga Mushroom-

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3339609/pdf/13205_2011_Article_36.pdf

I hope you can make it to the Pot luck dinner - Much information is available at websites above if you can not.

Best wishes for a health and enjoyable holiday.

Peter