## viruses studied thrive in an environment of low glutathione and high oxidative stress

## GLUTATHIONE AGAINST VIRUS DISEASE - A SPECIAL MESSAGE FROM DR. GUTMAN

Over the past few weeks, I have received numerous questions about the coronavirus and whether raising glutathione can offer some protection. For the sake of time and efficiency, I have written this message. My answer is that I believe there is a very important role for glutathione in this situation, but I do not have any direct studies to prove my point. Thus far, no clinical trials have been published looking directly at the role of glutathione in the treatment or prevention of coronavirus.

Why then do I support the idea of raising glutathione as an effective strategy. It is based on the hundreds of other studies where glutathione has been shown to positively affect the outcome in numerous other viral diseases and plays an important role in the development of these infections. Doing a bit of searching on <a href="www.pubmed.gov">www.pubmed.gov</a> will reveal articles on glutathione from the common cold (rhinovirus) to the "Flu" (influenza), to AIDS/HIV, hepatitis A, B, and C, DNA viruses, RNA viruses, retroviruses and more. To simplify, the majority of viruses studied thrive in an environment of low glutathione and high oxidative stress.

I have listed a small sampling of these studies below for those that want to pursue this research. If you come across any new developments regarding coronavirus and glutathione, I would love to be alerted.

Respectfully Dr. Jimmy Gutman MD

Glutathione as an antiviral - A sampling of the literature:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5425915/

https://www.ncbi.nlm.nih.gov/pubmed/21358592

https://www.ncbi.nlm.nih.gov/pubmed/18926849

https://www.ncbi.nlm.nih.gov/pubmed/16787218

https://www.ncbi.nlm.nih.gov/pubmed/9367343

https://www.ncbi.nlm.nih.gov/pubmed/11115795

https://www.ncbi.nlm.nih.gov/pubmed/26692473

https://www.ncbi.nlm.nih.gov/pubmed/9568464

https://www.ncbi.nlm.nih.gov/pubmed/8441757

https://www.ncbi.nlm.nih.gov/pubmed/18678861

https://www.ncbi.nlm.nih.gov/pubmed/12368227

https://www.ncbi.nlm.nih.gov/pubmed/31487871

https://www.ncbi.nlm.nih.gov/pubmed/29033950 https://www.ncbi.nlm.nih.gov/pubmed/9230243 https://www.ncbi.nlm.nih.gov/pubmed/12654482 https://www.ncbi.nlm.nih.gov/pubmed/21366409 https://www.ncbi.nlm.nih.gov/pubmed/24899897 https://www.ncbi.nlm.nih.gov/pubmed/24899897 https://www.ncbi.nlm.nih.gov/pubmed/28039563 https://www.ncbi.nlm.nih.gov/pubmed/8891667 https://www.ncbi.nlm.nih.gov/pubmed/9164274 https://www.ncbi.nlm.nih.gov/pubmed/26663823 https://www.ncbi.nlm.nih.gov/pubmed/8256245 https://www.ncbi.nlm.nih.gov/pubmed/19151318 https://www.ncbi.nlm.nih.gov/pubmed/25135637