Hello, from week 7 of our lockdown here in UK.

I’m Chris Astill-Smith Osteopath, Naturopath and Applied Kinesiologist.

I’m also director of Research and Development here at Epigenetics Ltd

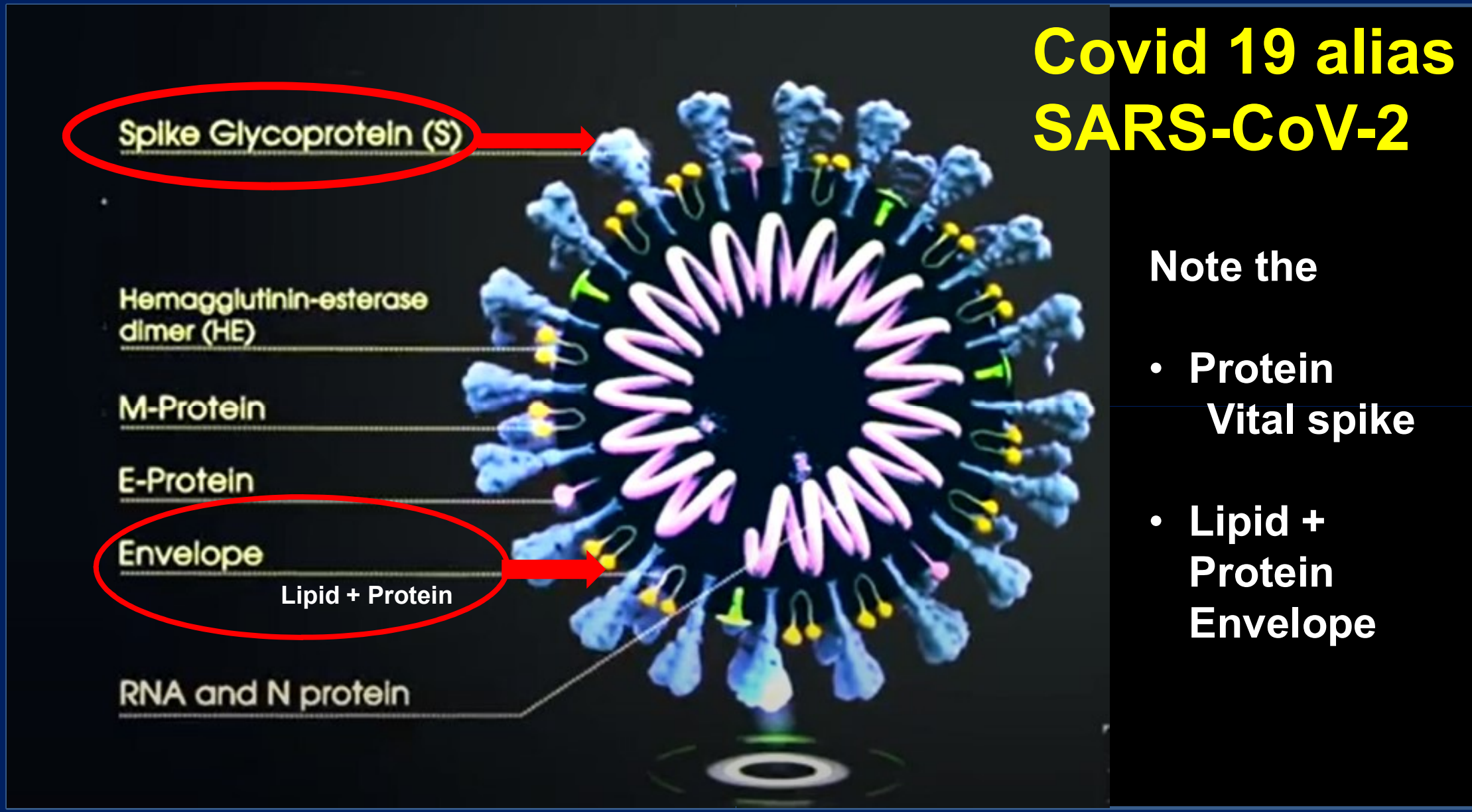
I've been inspired to write this presentation by the recent excellent webinars of

Wally Schmitt and Kerry McCord

And most recently Tyron Mincey from New Jersey.

Optimising the Immune System against the Covid 19 virus

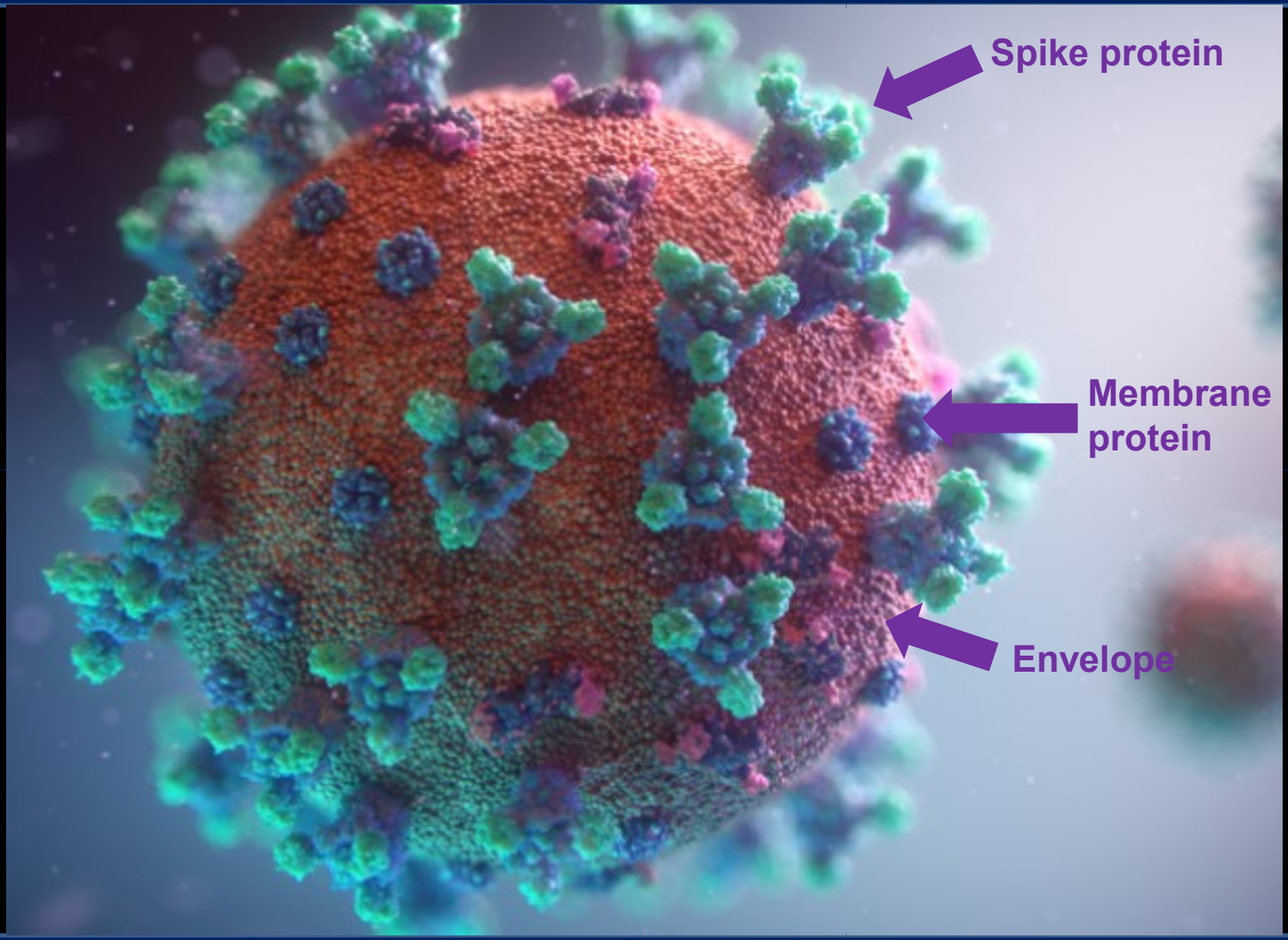
Let’s start by looking at the Structure of the Virus



Covid 19 alias SARS-CoV-2

Note the

- Protein
  Vital spike
- Lipid + Protein
  Envelope



Note the

- Protein
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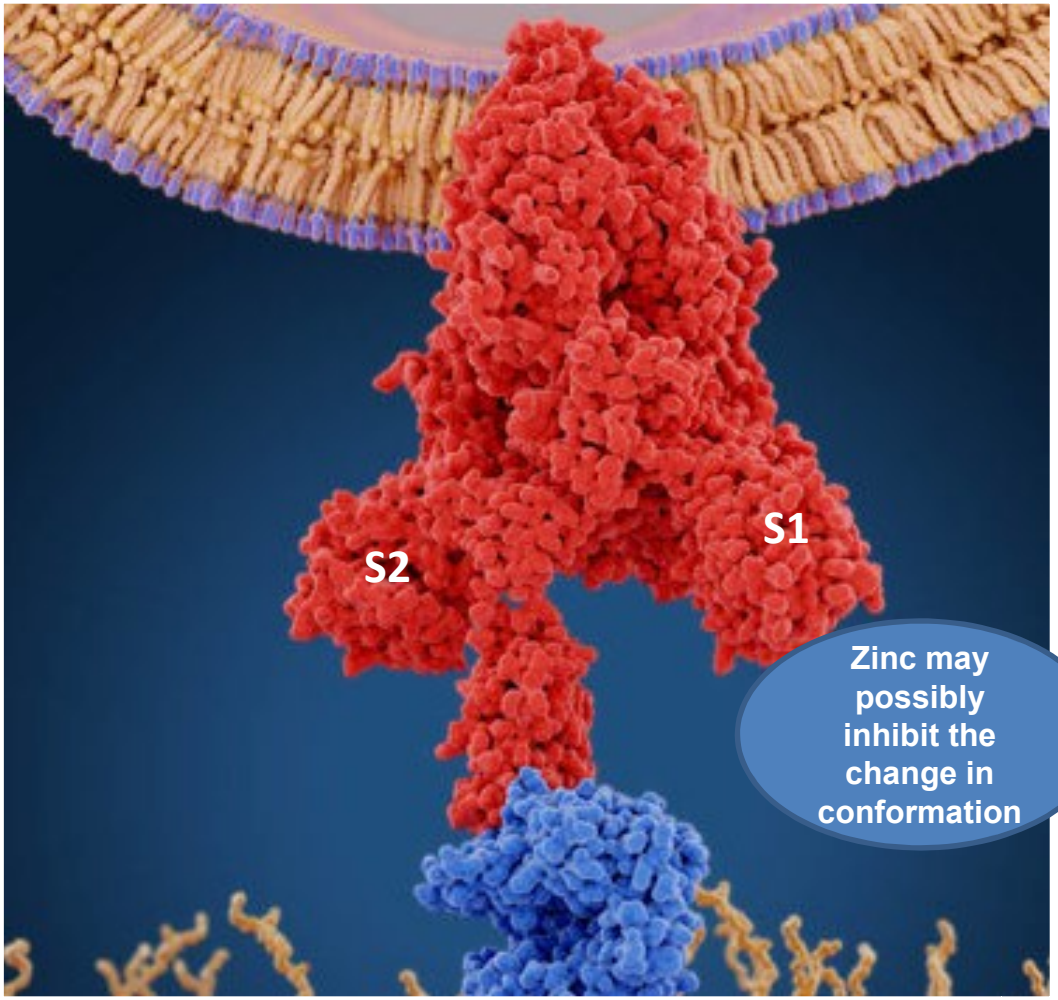


Each spike protein consists of three components that combine to form a 'trimer' structure with two parts or 'subunits', S1 and S2. You can think of the spike as a multistage rocket, with S1 being the boosters and S2 as a space shuttle: once attached to the ACE2 receptor, a spike sheds its S1 subunit and the remaining S2 part changes its shape or 'conformation' to enable the viral envelope to fuse with the outer membrane and drop the virus' genetic material inside the cell.

Let’s talk a little about Spectroscopic Emissions

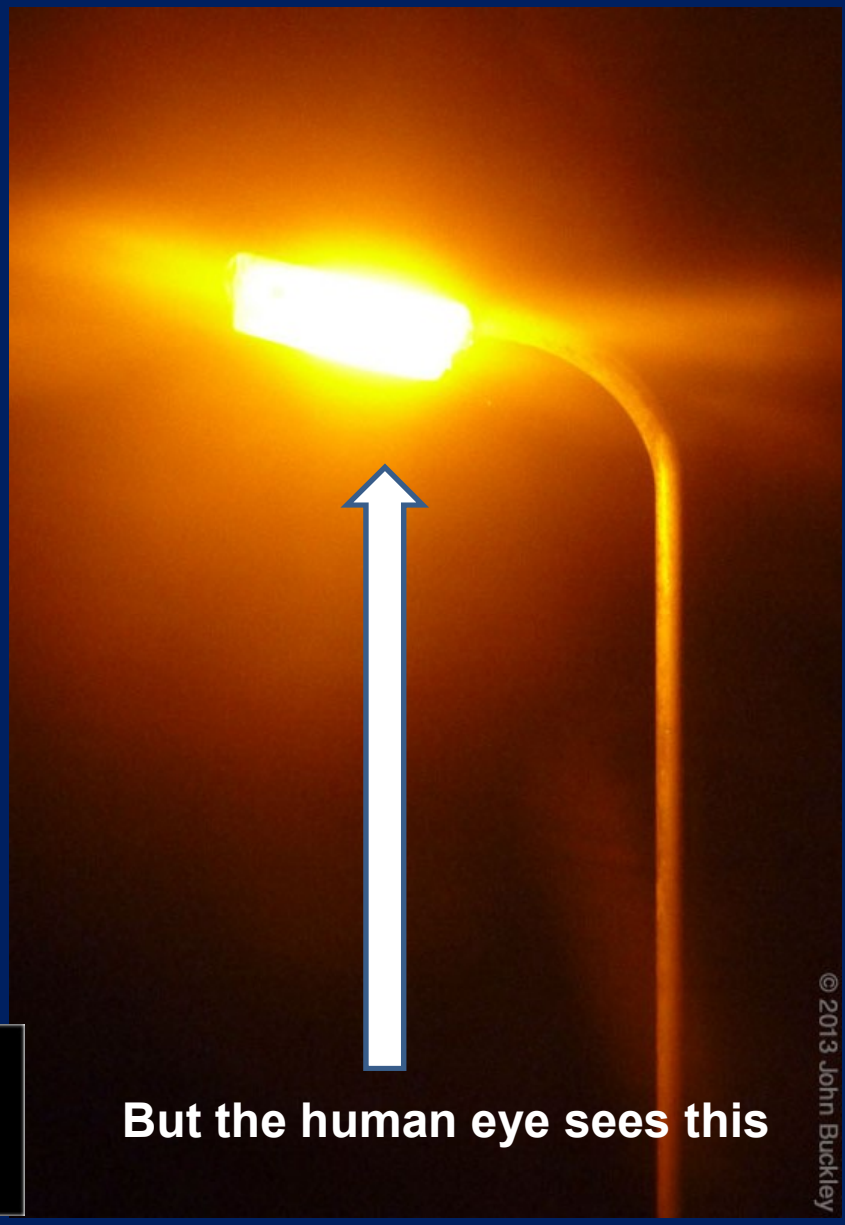
Spectroscopic emission

Every living and non-living compound whether organic or not emits a **spectroscopic emission** when heated. i.e. put into an excited state.

An example of this is when the orange street lights are turned on at dusk.

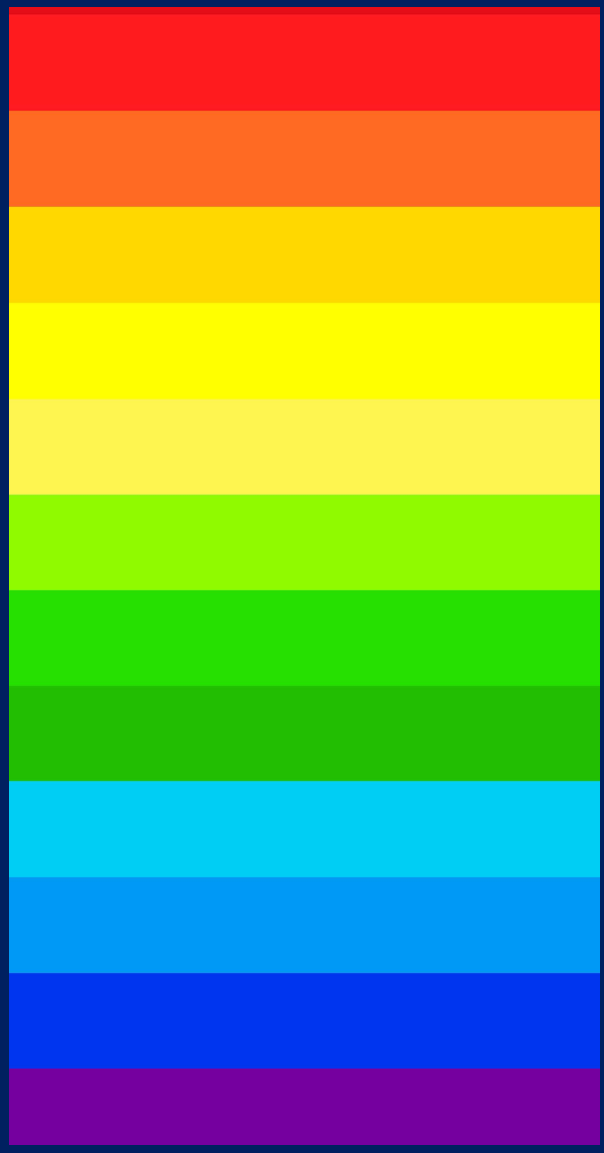
These lights contain sodium gas which has a spectroscopic emission like this –

Sodium Spectroscopic emission



But the human eye sees this

However when all these different colours are layered together we humans see the bright orange glow when the light is on, which can be measured as a single monochromic emission.
The human eye perceives light from the violet end of the spectrum at 385nm to the red end of the spectrum at 645-770nm.



My finding is that COVID 19 emits a spectroscopic emission at 633nm in the orange spectrum.

You can print this off either on paper or best on an acetate sheet. If on paper place it coloured side down on the patient or patient looks at it. This acetate now available from Epigenetics Ltd www.epigenetics-international.com

News > UK > UK Politics

Specially trained 'Covid detection dogs' set to sniff out coronavirus

UK universities begin early phases of canine training

Jon Stone Policy Correspondent | @joncstone | 2 days ago |
18 comments

pecially-trained "Covid detection dogs" could soon be sniffing out
oronavirus in infected people in the UK, if a trial by British researchers
oes to plan.

anines' acute sense of smell is already used to detect certain cancers
nd other diseases, and it is hoped that the animals can turn their noses
o helping with the ongoing pandemic.

ome diseases have a distinctive odor that it not detectable to most
umans but which dogs – with their strongly developed sense of smell
find obvious.

fectious odours are Volatile Organic Compounds (VOC)
mitted in the breath, sweat, urine and faeces.
very chemical compound has a specific spectroscopic
mission. Is this what the 633nm acetate is resonating with?

- Thus if a patient weakens in the clear to this specific coloured acetate you could say that they might currently have COVID19.

- But of course never base a diagnosis on this finding alone.

- You must follow government guidelines in such a case.

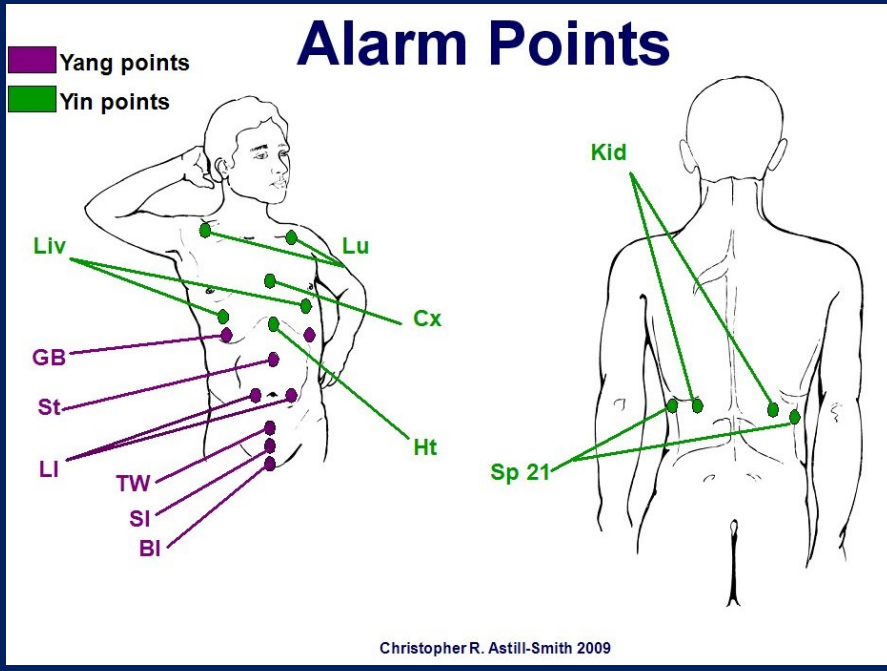
Common symptoms
Fever: 99%
Fatigue:70%
Dry cough: 59%
Loss of appetite: 40%
Body aches: 35%
Shortness of breath: 31%
Mucus or phlegm: 27%

Other symptoms
Sore throat
Headache
Chills, sometimes with shaking
Loss of smell or taste
Stuffy nose
Nausea or vomiting
Diarrhea
Skin rash

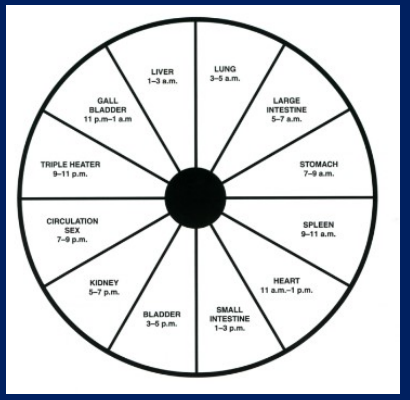
have tested this
emotely using
air samples of
known cases of
COVID 19 and they
veaken in the clear
f the **virus is (still)**
ctive regardless
of whether the
patient has
symptoms or not.

Most people do not weaken in the clear to this acetate as they are currently not infectious.

However most people who do not weaken in the clear weaken when the acetate is challenged whilst therapy localising the current **WON Mu time point.**

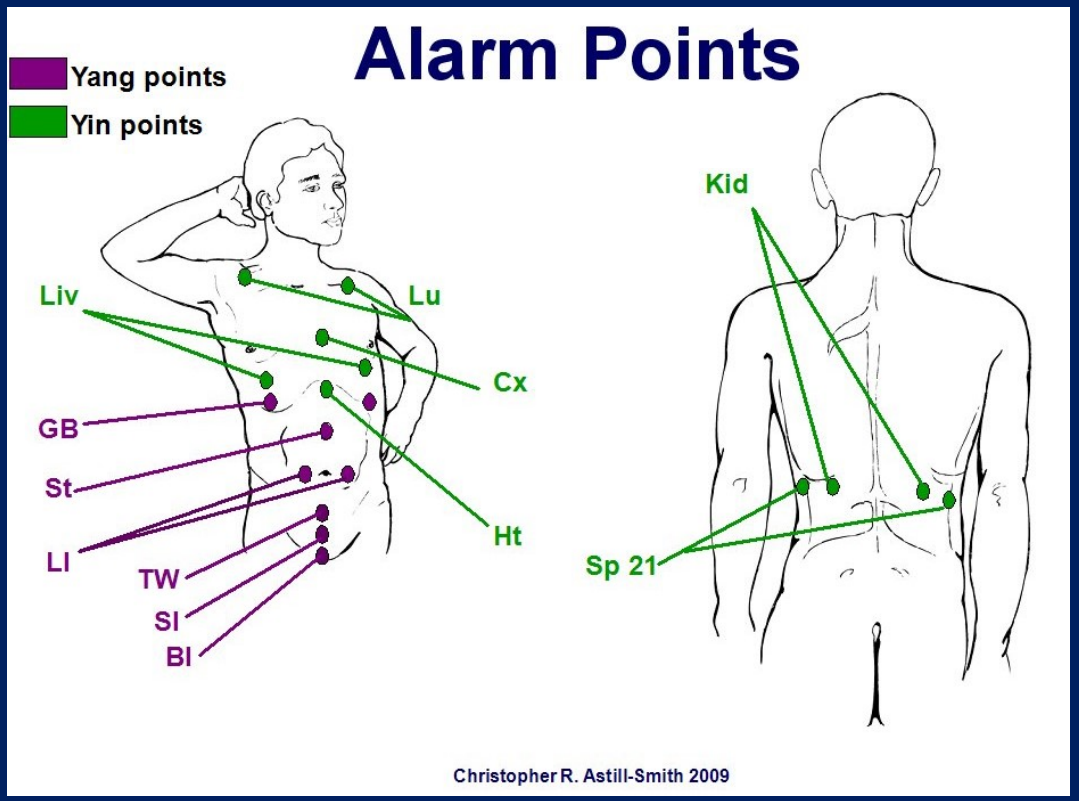


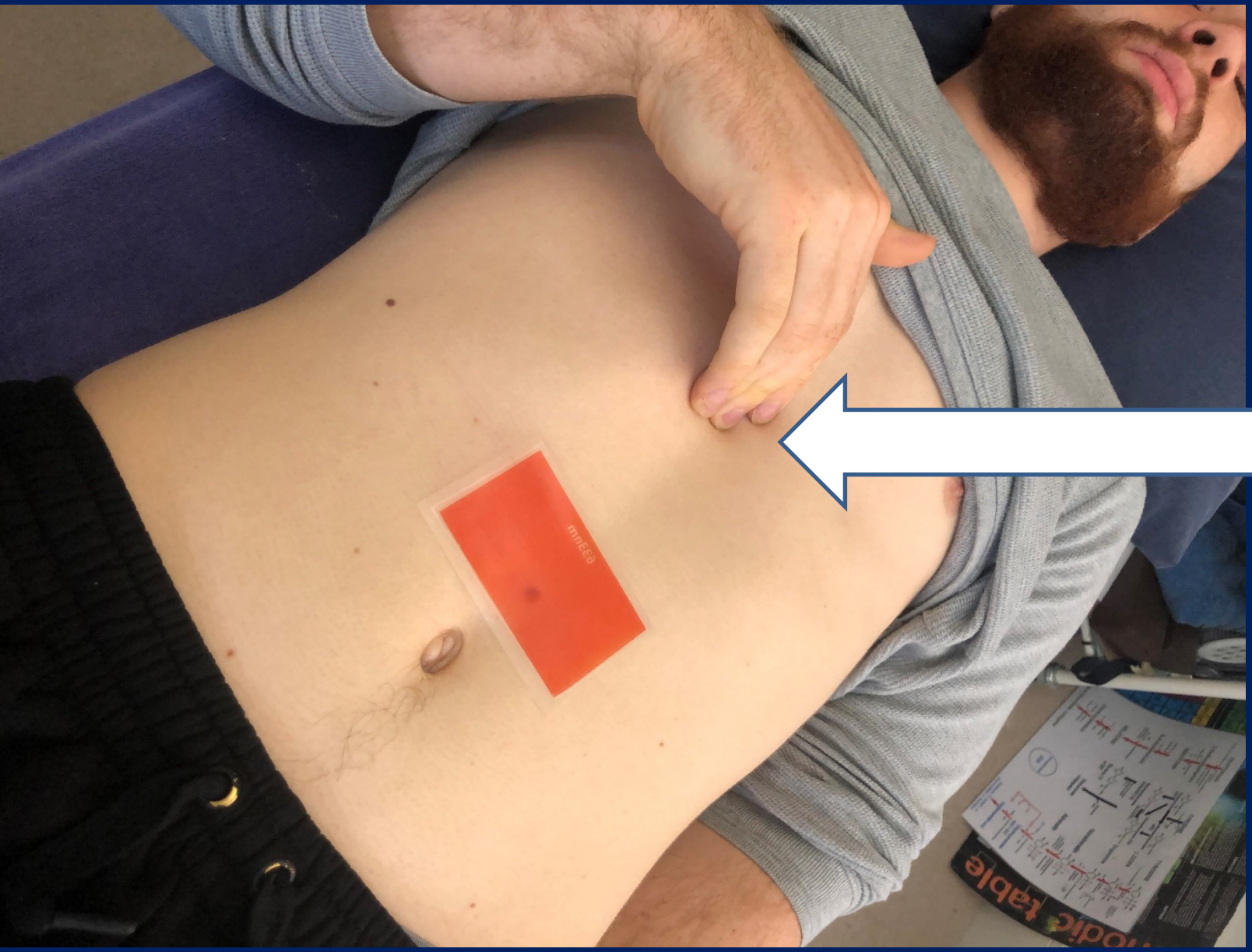
The WON Mu time point is the coupled meridian's ALARM point to the NOW time.



NOW time		WON time
Lung	4-6am	LI
LI	6-8am	Lung
St	8-10am	Sp
Sp	10-12midday	St
Ht	12-2pm	SI
SI*	2-4pm	Ht*
BI	4-6pm	Kid
Kid	6-8pm	BI
Cx	8-10pm	TW
TW	10-12midnight	Cx
GB	12-2am	Liv
Liv	2-4am	GB

BST Summer times





Heart Alarm point shown here is the WON time to the Small Intestine NOW time (2-4pm)

This does not mean they have COVID-19 but if they were exposed to it you can find what will optimise their immune system against it.

Vitamin D3
Zinc
Vitamin C
Vitamin K2
Monolaurate
Probiotics

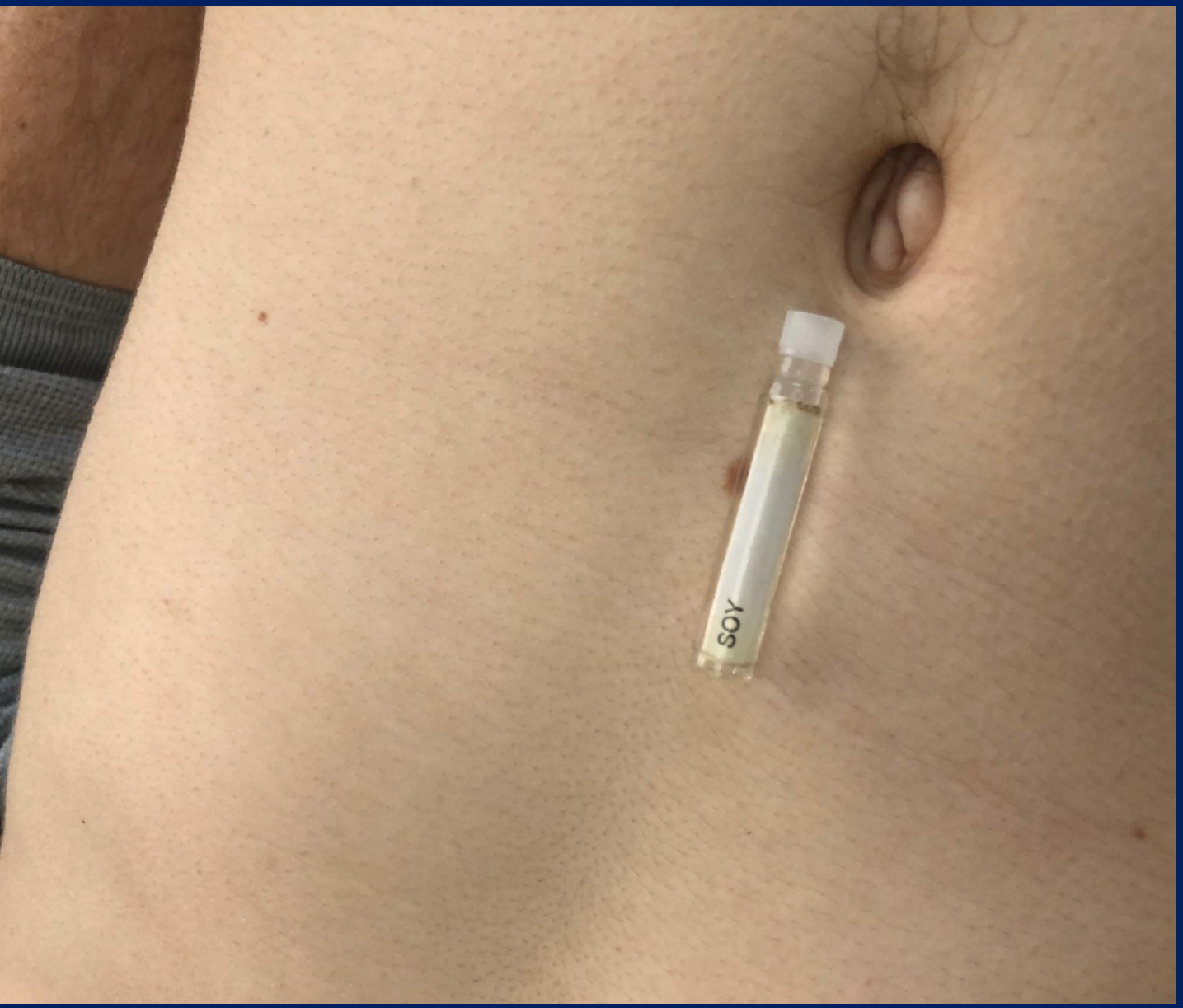
Using the preceding protocol you have been able to assess a range of nutrients to support you, your family and your patients immune systems. Most of the people I have put on the **Vitamin D3, Zinc and the Sodium Ascorbate** have so far not contracted the virus.

I have had several people who have tested positive, had **mild symptoms** and recovered within a few days.

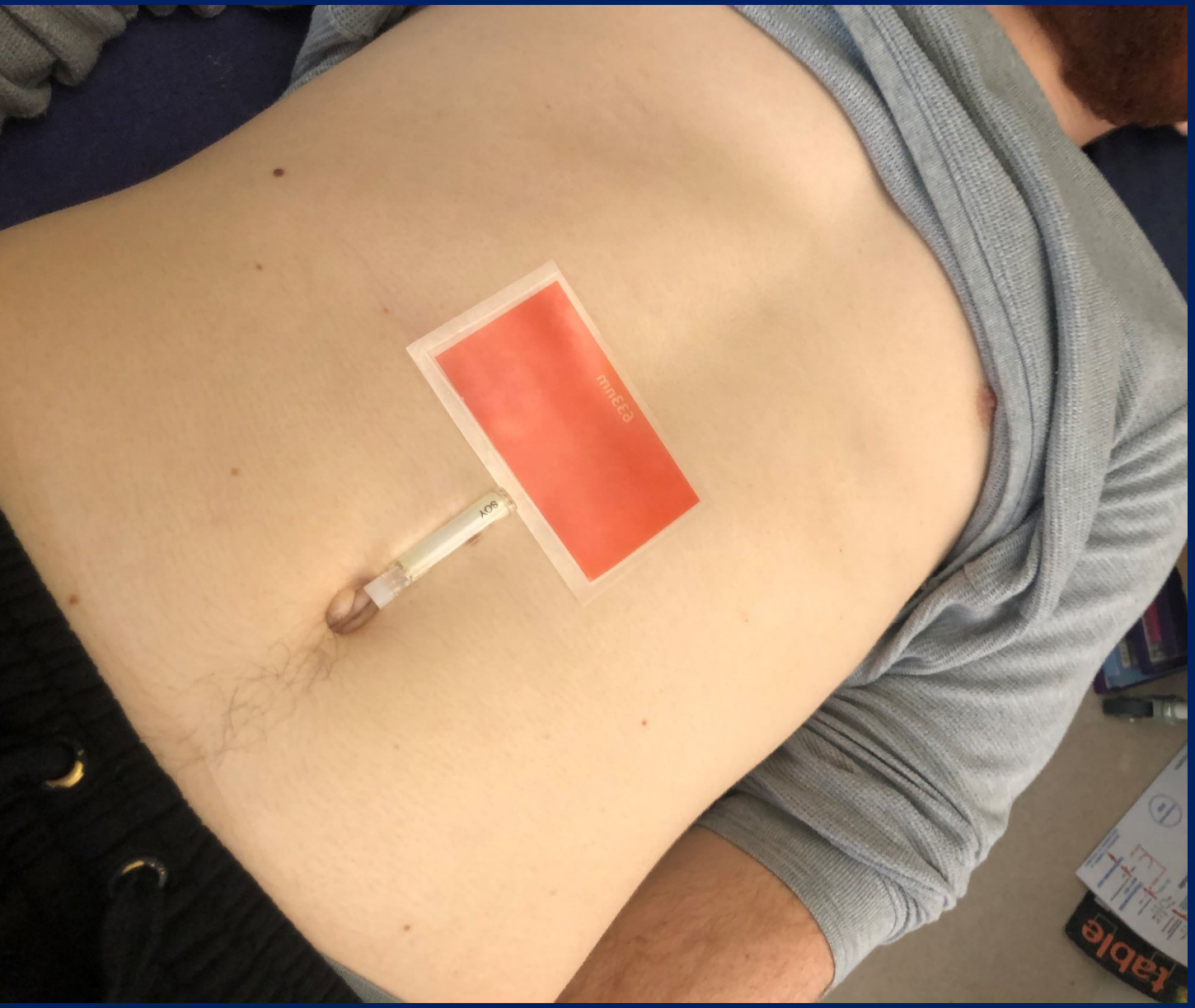
There appears to be **other aspects** to the reason some infected people are affected worse by the virus than others.

One of these is that patients who do not weaken in the clear but only with TL to the WON time do weaken when challenged firstly with GM soy followed the 633nm acetate.

The GM soy itself does not weaken in the clear but when left on and then the acetate added do weaken.



If a person weakens in the clear to soy then they probably have an intolerance to it.



GM Soy
+
633nm acetate

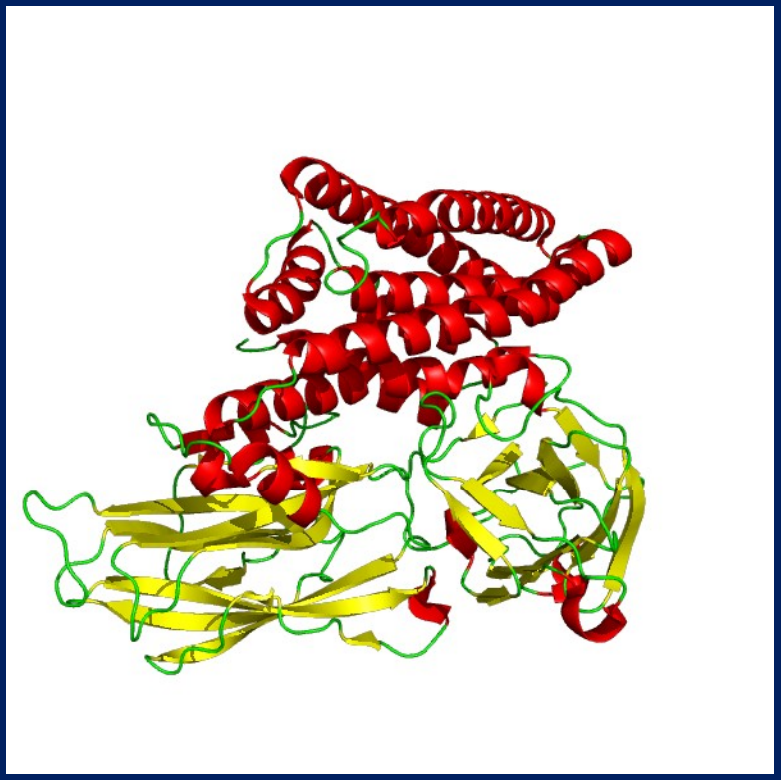
This may mean that GM soy is in some way facilitating the virus entry.
Like a transmembrane serine protease 2 ?

Organic soy does not create this weakening.
93% of the world's soy is GM but be aware that much organic is affected also by cross contamination.

Generic GMO soybeans.

Following expiration of Monsanto's patent on the first variety of glyphosate-resistant Roundup Ready soybeans in 2015, development began on glyphosate-resistant generic soybeans.

Monsanto developed a glyphosate-resistant soybean that expresses **Cry1Ac protein** from *Bacillus thuringiensis* and the glyphosate-resistance gene.

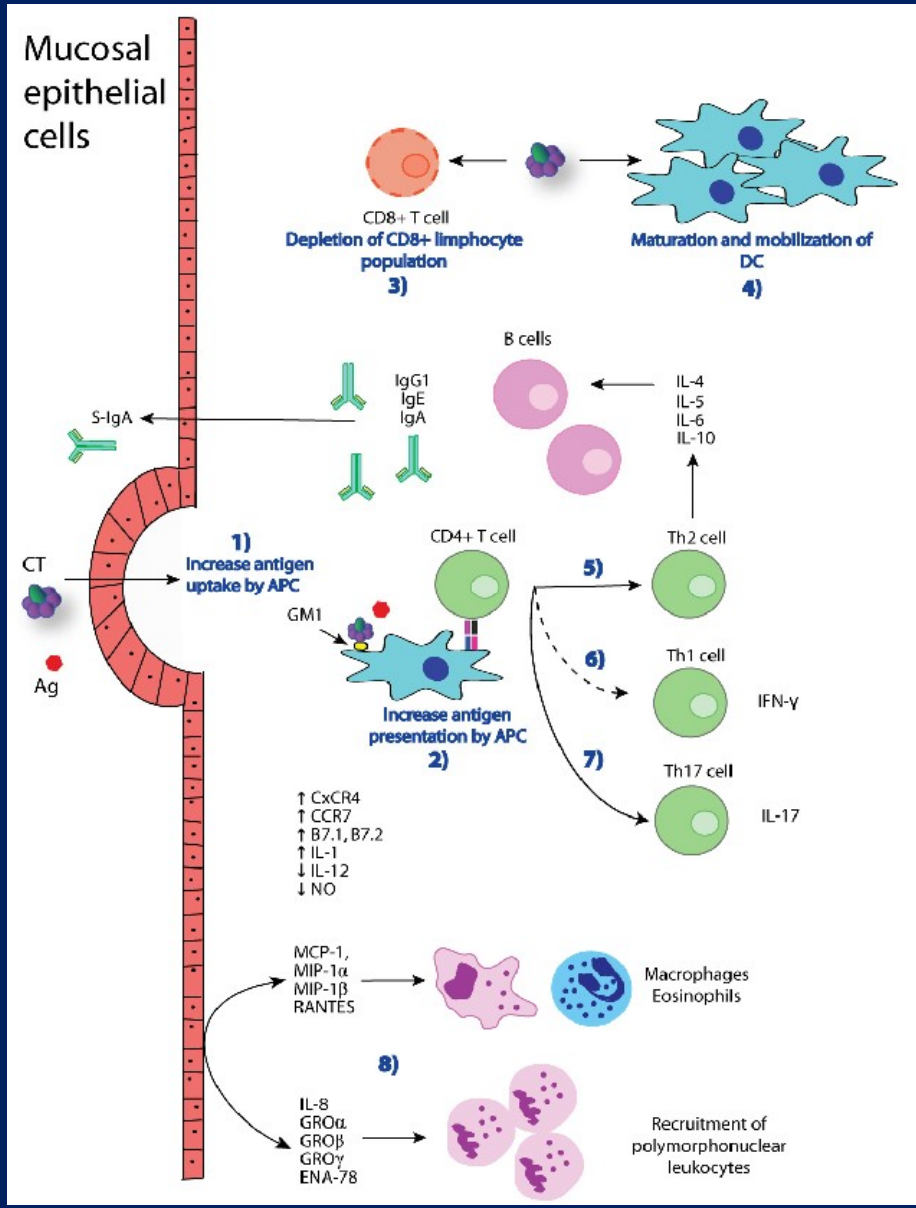


Cry1Ac protein is a crystal protoxin produced by this gram-positive bacterium during sporulation.

Cry1Ac is one of the delta endotoxins produced by this bacterium which act as **insecticides.** Because of this, the genes for these have been introduced into commercially important crops by genetic engineering (such as soy, cotton and corn) in order to confer pest resistance on those plants.*

*McLean M (2011). "A review of the environmental safety of the Cry1Ab protein". *Environ Biosafety Res*. 10 (3): 51–71.

Cry1Ac is also a mucosal adjuvant (an over immune-response enhancer) for humans.* And an inhibitor of mitochondrial respiration.**



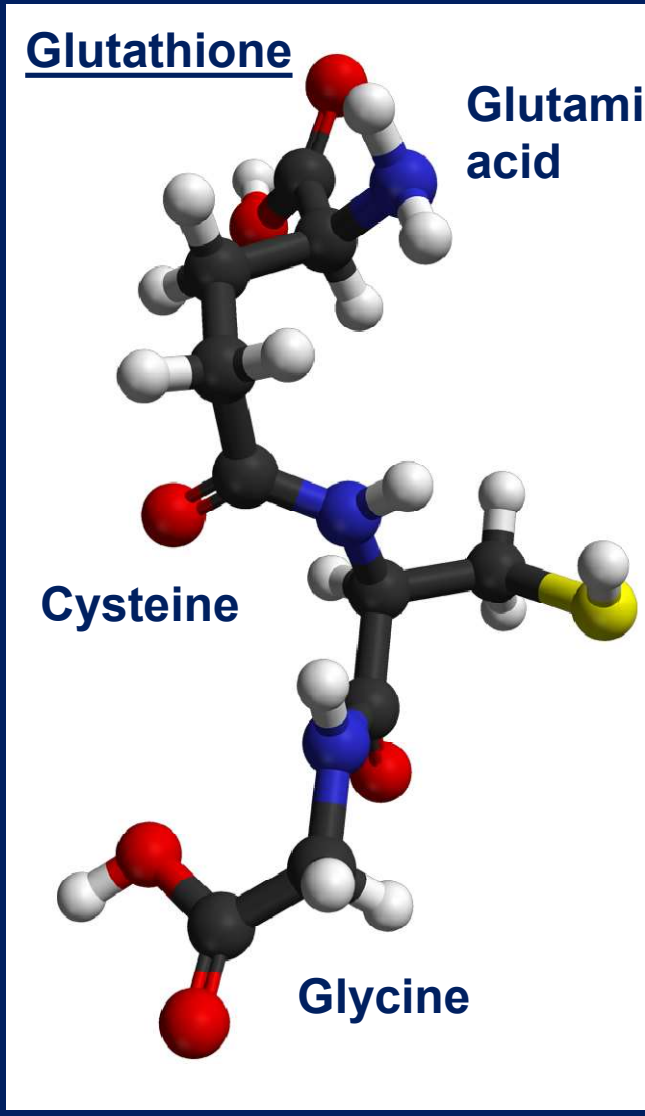
Rodriguez-Monroy MA, Moreno-Fierros L (2010). "Striking activation f NALT and nasal passages lymphocytes induced by intranasal mmunization with Cry1Ac protoxin". *Scand. J. Immunol.* 71 (3): 159–8.

*Cytotoxicity on human cells of Cry1Ab and Cry1Ac Bt insecticidal oxins alone or with a glyphosate-based herbicide

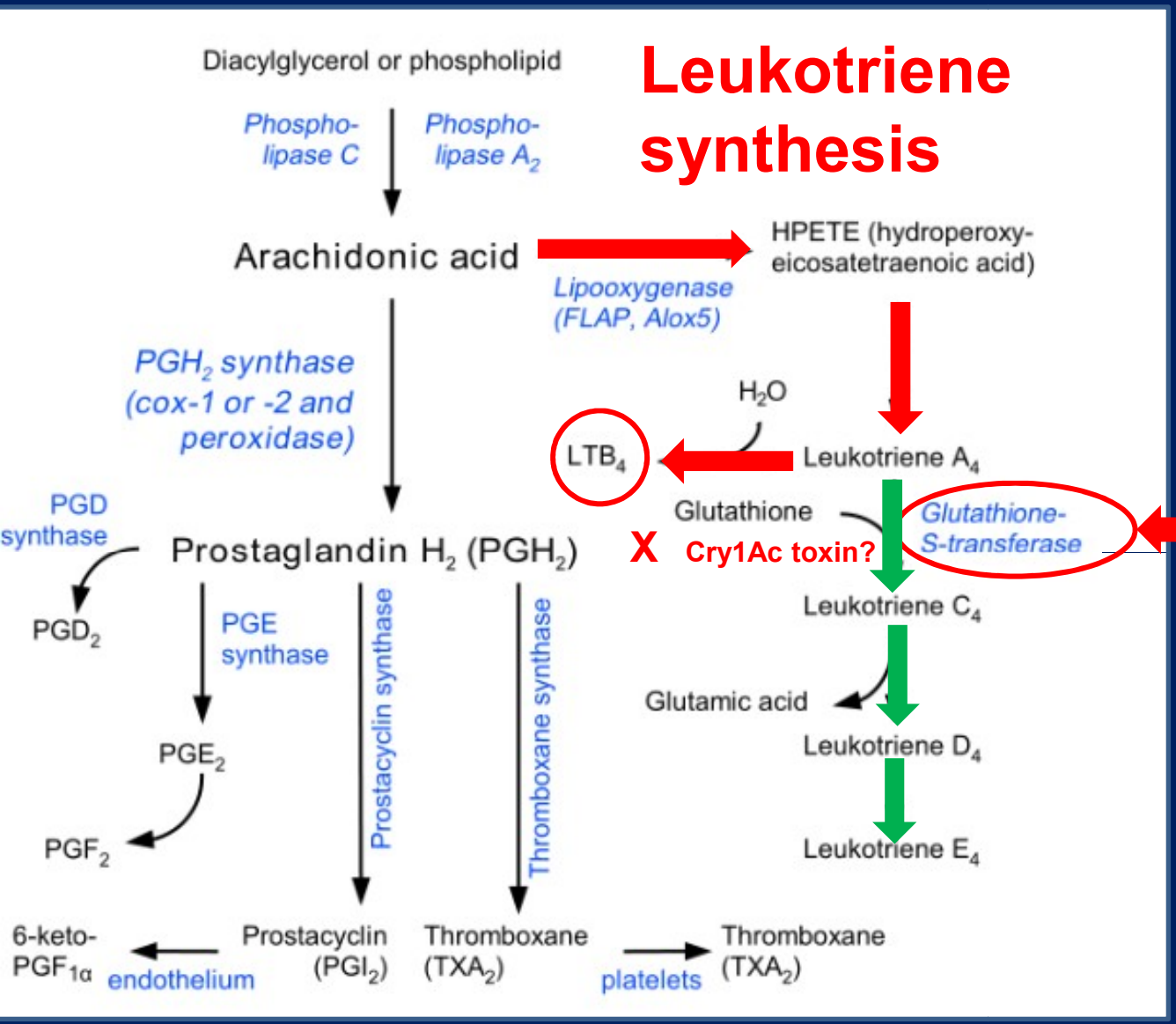
. Mesnage E. Clair S. Gress C. Then A. Székács G.-E SéraliniFirst ublished:15 February 2012 https://doi.org/10.1002/jat.2712

Cry1Ac is a toxin that would have to be detoxified if ingested in humans most likely by conjugation with glutathione.

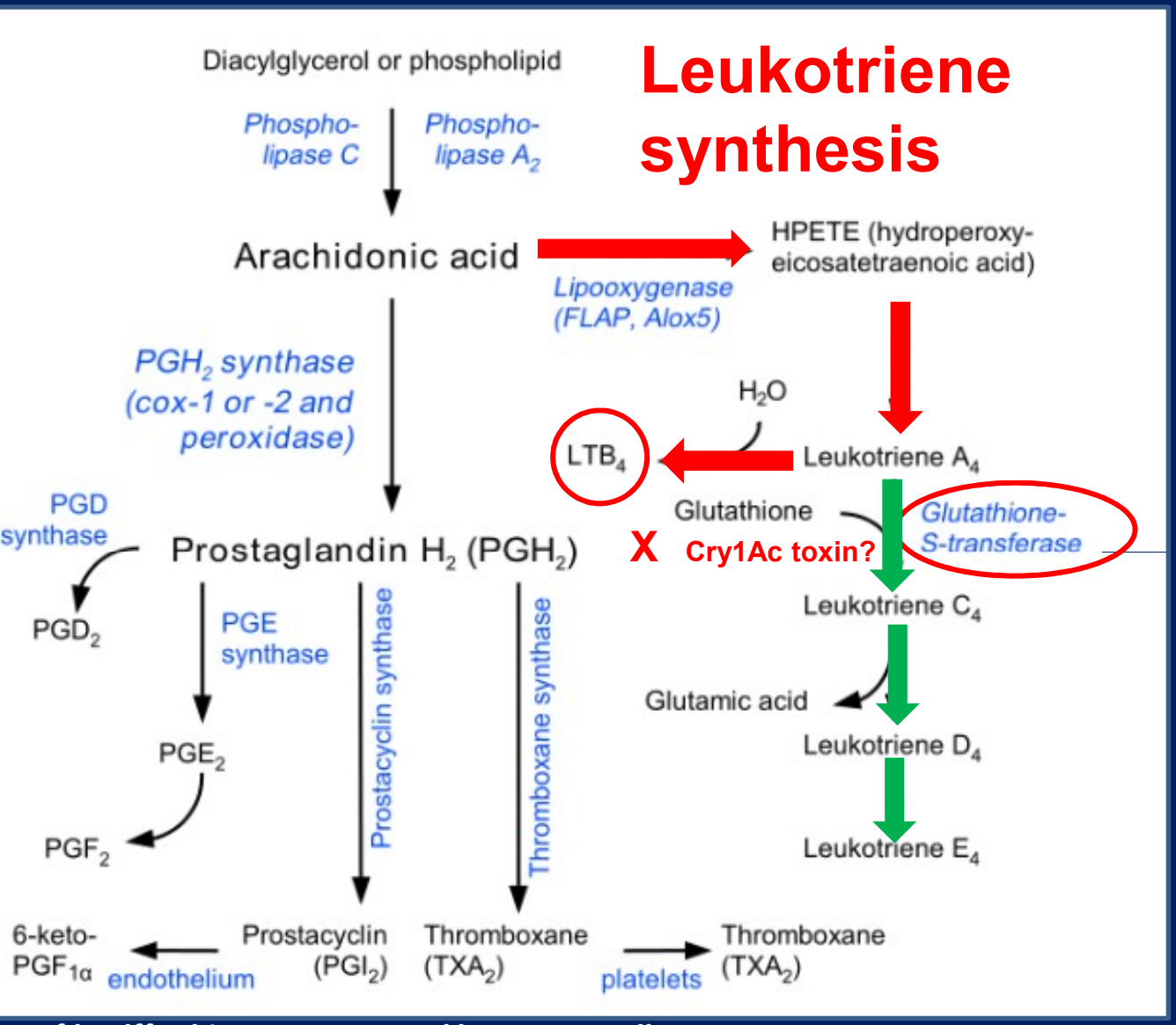
All my patients positive to Covid-19 show low in reduced glutathione and under expression of ***Glutathione-s-transferase (MGST3) enzyme.****



Jakobsson PJ, Mancini JA, Riendeau D, Ford-Hutchinson AW (Oct 1997). Identification and characterization of a novel microsomal enzyme with glutathione-dependent transferase and peroxidase activities". *J Biol Chem*. 272(36): 22934–9.



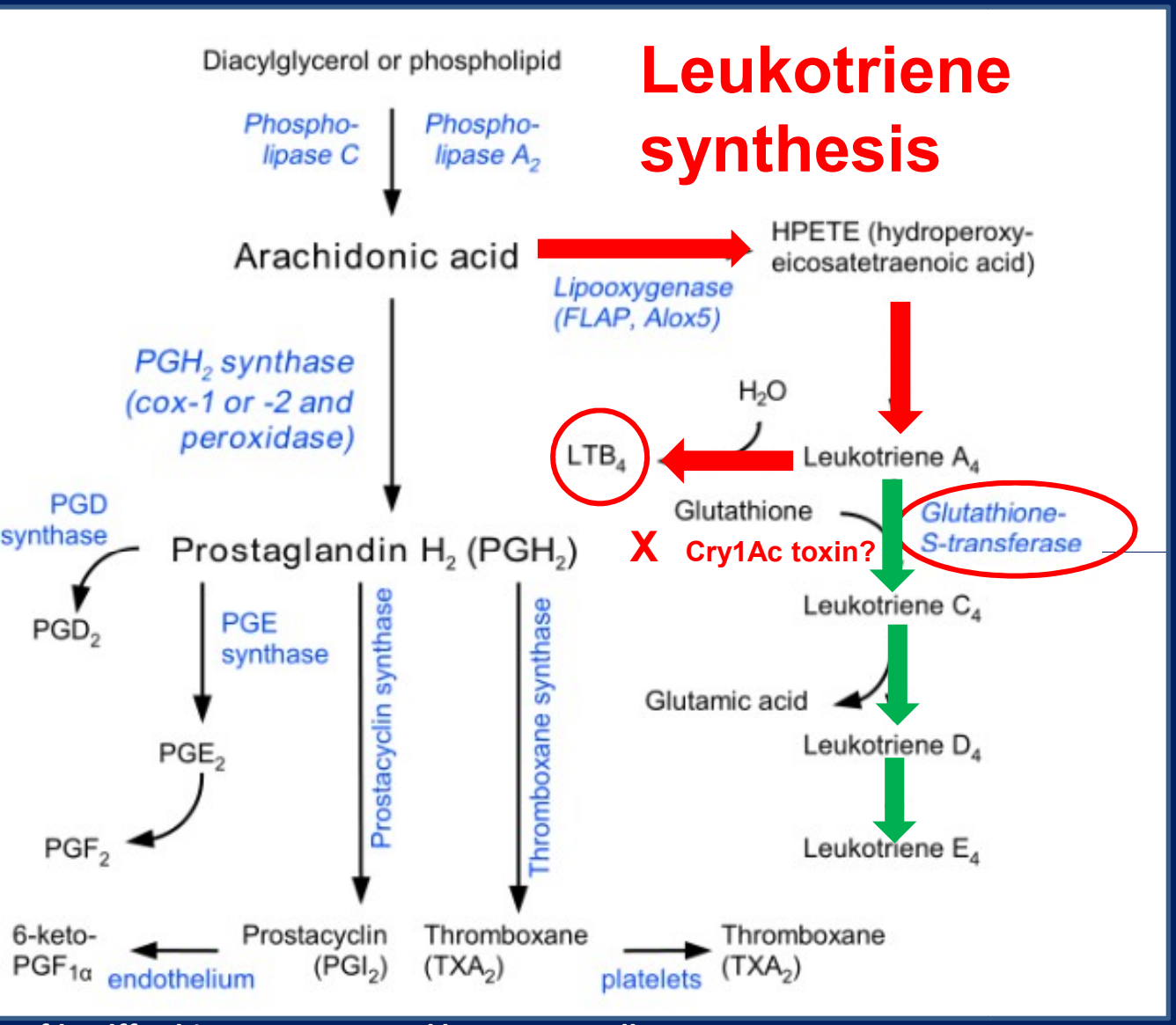
The MAPEG (Membrane-Associated Proteins in Eicosanoid and Glutathion metabolism) family consists of six human proteins, which includes **Microsomal glutathione S-transferase 3** ***(MGST3)*** ar involved in the production of leukotrienes and prostaglandin E, both important mediators of inflammation.



By Jfdwolff, whitespace removed by Fvasconcellos - w:Image:Eicosanoid_synthesis.png, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=1619077

This gene encodes the enzyme that catalyzes the conjugation of leukotriene A4 and reduced glutathione to produce leukotriene C4. This enzyme also demonstrates glutathione-dependent peroxidase activity towards lipid hydroperoxides.*

*"Entrez Gene: MGST3 microsomal glutathione S-transferase 3"



Leukotriene synthesis

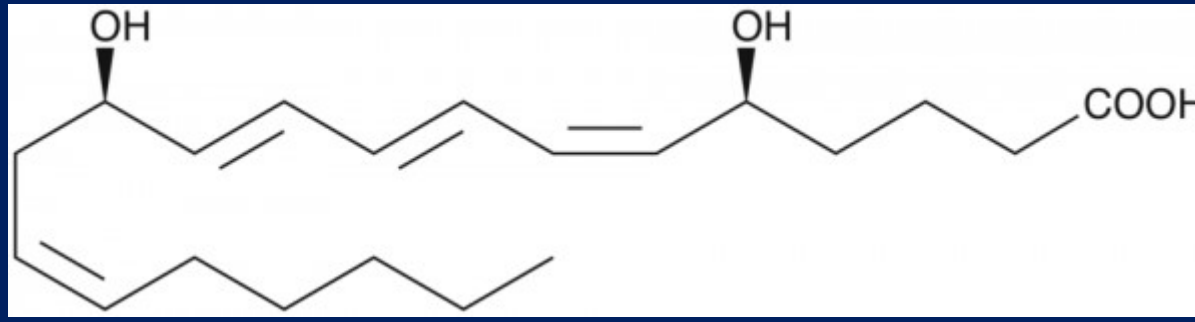
This shunting of leukotriene A4 to the formation of leukotriene B4 is the most inflammatory of all chemical mediators especially to the lungs.

Leukotriene B4's primary function is to recruit neutrophils to areas of tissue damage, though it also helps promote the production of inflammatory cytokines by various immune cells.

Neutrophil

Neutrophils generate Hypochlorite radical via the enzyme myeloperoxidase .

Drugs that block the actions of Leukotriene B4 have shown some efficacy in slowing the progression of neutrophil-mediated diseases.*



Leukotriene B4 (LTB4) is a leukotriene involved in inflammation. It is produced from leukocytes in response to inflammatory mediators and is able to induce the adhesion and activation of leukocytes on the endothelium, allowing them to bind to and cross it into the tissue.*

*Crooks, S.W; Stockley, R.A (1998). "Leukotriene B4". *The International Journal of Biochemistry & Cell Biology*. 30 (2): 173–8.

*Cotran; Kumar, Collins (1999). *Robbins Pathologic Basis of Disease*. Philadelphia: W.B Saunders Company. ISBN 0-7216-7335-X.

Cytokine Storm Syndrome is a form of systemic inflammatory response syndrome and is an adverse effect of some viral infections, chemicals and drugs.*

A number of deaths due to COVID-19 have been attributable to this.**

*Lee DW, Gardner R, Porter DL, Louis CU, Ahmed N, Jensen M, Grupp SA, Mackall CL (July 2014). "Current concepts in the diagnosis and management of cytokine release syndrome". *Blood*. 124 (2): 188–95.

**Mehta P, McAuley DF, Brown M, et al. (16 March 2020). "COVID-19: consider cytokine storm syndromes and immunosuppression". *The Lancet*. 395: 1033–34.

thus strongly advise all people to **strictly avoid all soy products** in their diet. Using the preceding challenge you may find a need for supplementing extra reduced glutathione into their immune optimising regime along with Vitamin C, Zinc and Vitamin D3.

5ml =400mg Reduced Glutathione

Soy products

Soy protein isolate
Soy milk
Soy cheese
Soy ice cream
Soy yogurt
Soy flour
Tofu
Miso
Natto
Shoyu
Soy sauce
Tamari
Edamame
Soy vegetable oil
Tempeh
Vegetable gum
Vegetable broth
Vegetable starch
Hydrolysed vegetable protein
Textured vegetable protein
Soy molasses

Hydrolysed plant protein
Monosodium glutamate
Artificial flavouring
Natural flavouring
Plum sauce
Hoisin sauce
Fish sauce
Teriyaki sauce
Instant gravy granules
Bouillon cubes
Okara
Soybean butter
Vegetable gum
Gum Arabic
Guar gum
Vegetable starch
Soy lecithin
Some cosmetics and lip balm
Bean sprouts
Mono and diglycerides
thickeners
Mixed tocopherols (Vitamin E)

May contain Soy products

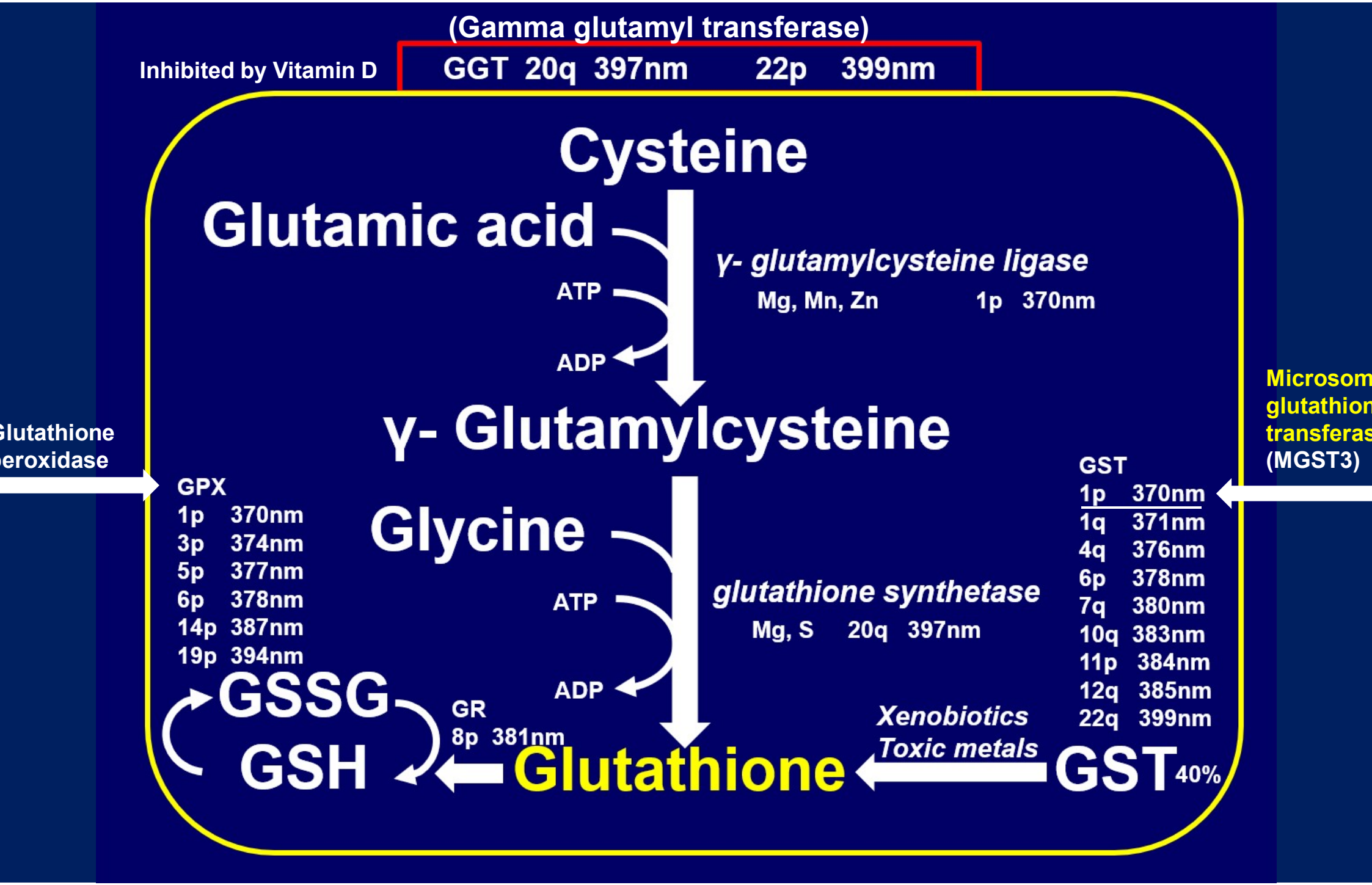
Candy
Cereals
Asian foods
Baked goods and baking mixes
Chicken processed with chicken broth
*Chocolate
Deli meats made with hydrolysesd vegetable protein
Energy bars or nutrition bars
Hamburger meat with soy protein fillers
Hamburger buns made with added soy flour
*Ice cream
Imitation dairy foods
Infant formulas
*Margarine
Mayonnaise
Nutritional supplements
Peanut butter and peanut butter substitutes
Commercial sauces, gravies and soups
Sweet bean sauce
Sausages and hot dogs made with soy protein fillers
Smoothies
Vegetable broth
Vegetarian meat substitutes

nterestingly

Vitamin C aids in the recycling of Glutathione.

Zinc co-factors the conversion of cysteine into glutathione and activates ACE2 enzyme.

Vitamin D stimulates the synthesis of glutathione and reduces expression of GGT. (Gamma glutamyl transferase)


(Gamma glutamyl transferase)
Inhibited by Vitamin D
GGT 20q 397nm 22p 399nm
Cysteine
Glutamic acid
ATP
ADP
γ- glutamylcysteine ligase
Mg, Mn, Zn 1p 370nm
γ- Glutamylcysteine
Glycine
ATP
ADP
glutathione synthetase
Mg, S 20q 397nm
Glutathione
eroxidase
GPX
1p 370nm
3p 374nm
5p 377nm
6p 378nm
14p 387nm
19p 394nm
GSSG
GSH
GR
8p 381nm
Glutathione
Xenobiotics
Toxic metals
GST 40%
GST
1p 370nm
1q 371nm
4q 376nm
6p 378nm
7q 380nm
10q 383nm
11p 384nm
12q 385nm
22q 399nm
Microsom
glutathion
transferas
(MGST3)

t's interesting also to note that in the UK, Britain's ethnic minorities – **Black, Asian and also obese people** are suffering a vastly higher proportion of Covid19 deaths.

Could this be due at least in part to diet, lack of Vitamin D and soy intake?

NEWS

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Coronavirus: Ethnic minorities 'are a third' of patients

By Rianna Croxford
Community affairs correspondent, BBC News

12 April 2020 Share

There is "emerging evidence" to suggest coronavirus is having a disproportionate impact on people who are black, Asian and minority ethnic.

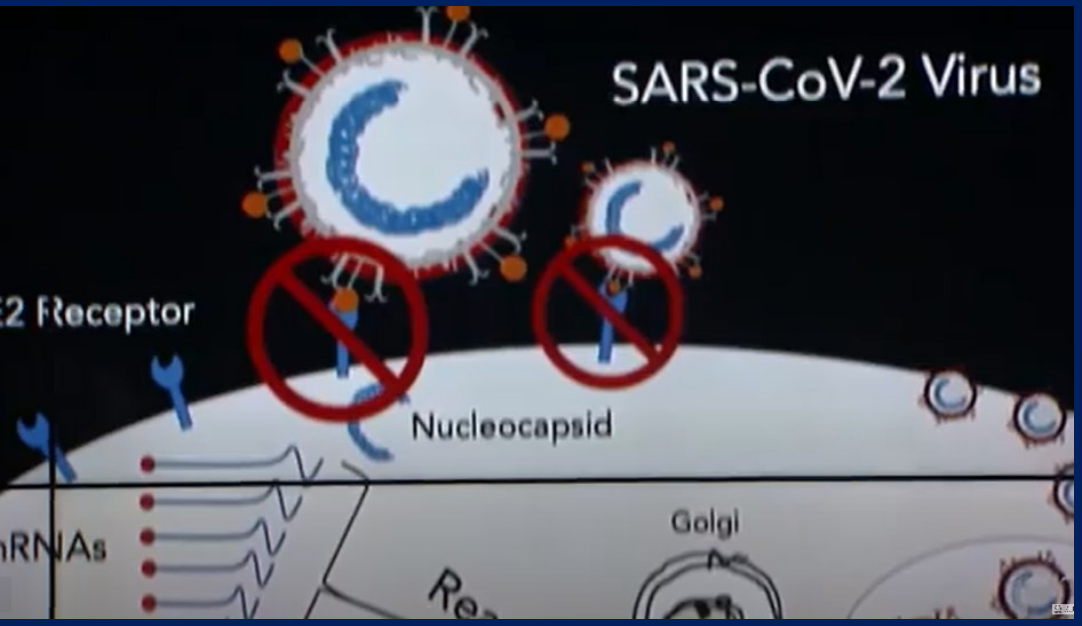
Research suggests that more than a third of patients who are critically ill in hospita with the virus are from these backgrounds.

And one third of all UK deaths have been found to have Diabetes as a co-morbidity.

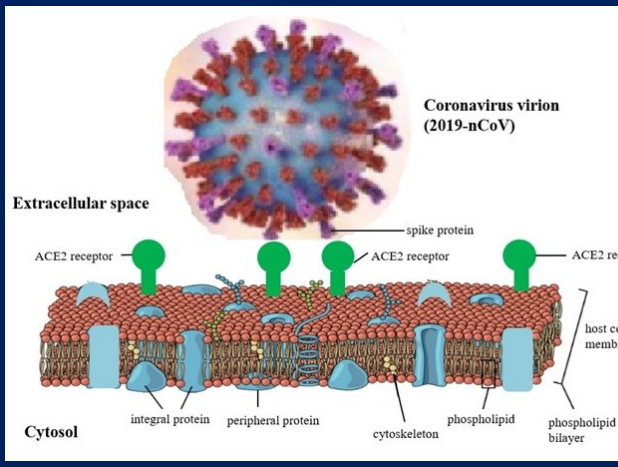
Treatment Approaches

reatment approaches*

. Blocking the entry of the virus rom docking on the ACE2 eceptor.



he Science behind the Coronovirus by Dr Patrick Soon-Shiong



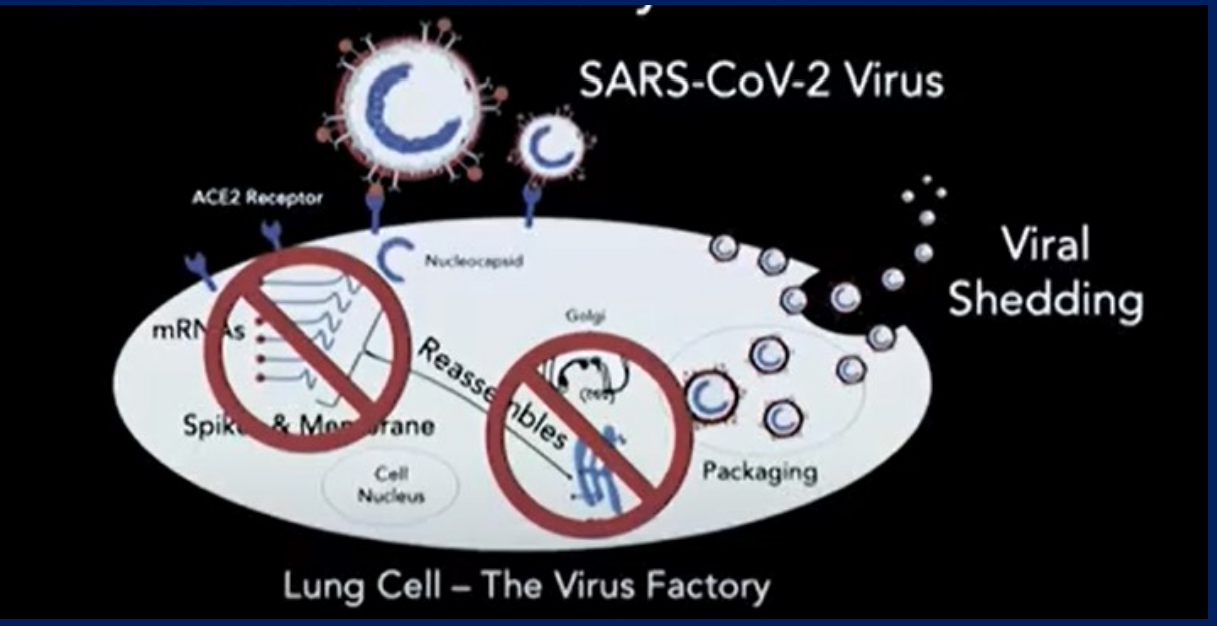
Zinc Ascorbate / Sulfa

Quercitin

Monolaurin

Treatment approaches*

2. Blocking the machinery of the virus i.e. stopping its ability to replicate.



Zinc Ascorbate / Sulfat

Colloidal silver

Selenium

*The Science behind the Coronovirus by Dr Patrick Soon-Shiong

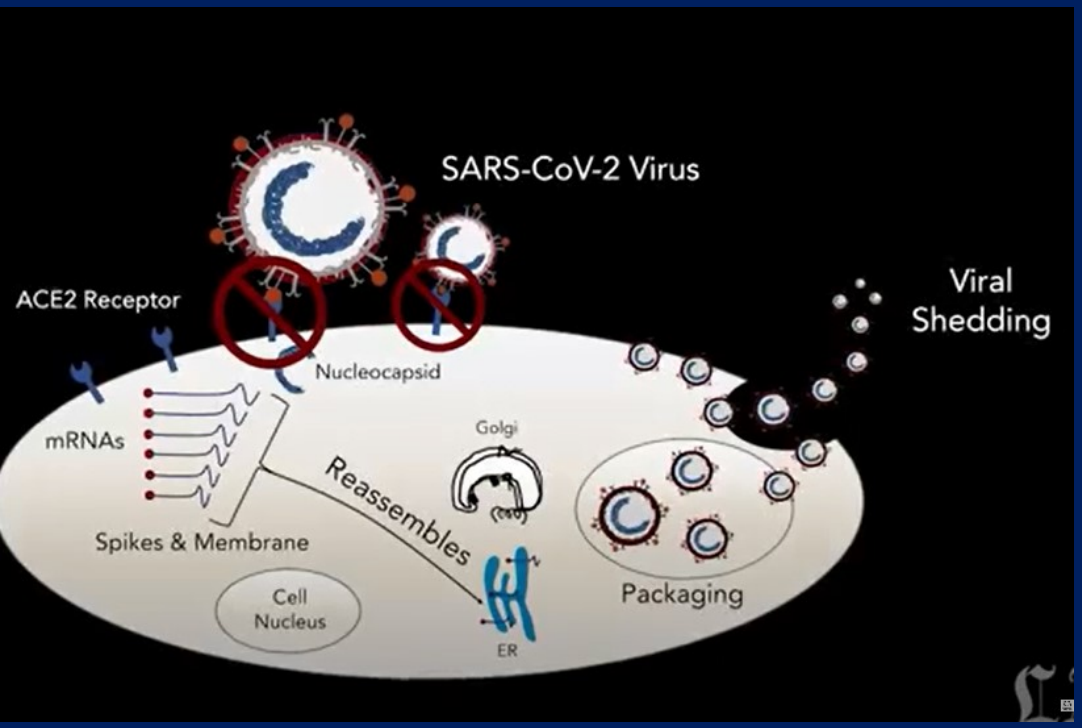
For the COVID-19 virus to
eproduce, once it enters our
ells an enzyme called RNA
Dependent RNA polymerase
nakes more copies of the virus.
lowever, zinc inhibits this
nzyme and at high enough
oncentrations within the cell
nay entirely inhibit the virus
rom replicating.*

https://journals.plos.org/plospathogens/article?id=10.1371%2Fjournal.ppat.1001176

Artoria2e5 - Own work

Treatment approaches*

3. Block the packaging of the virus.

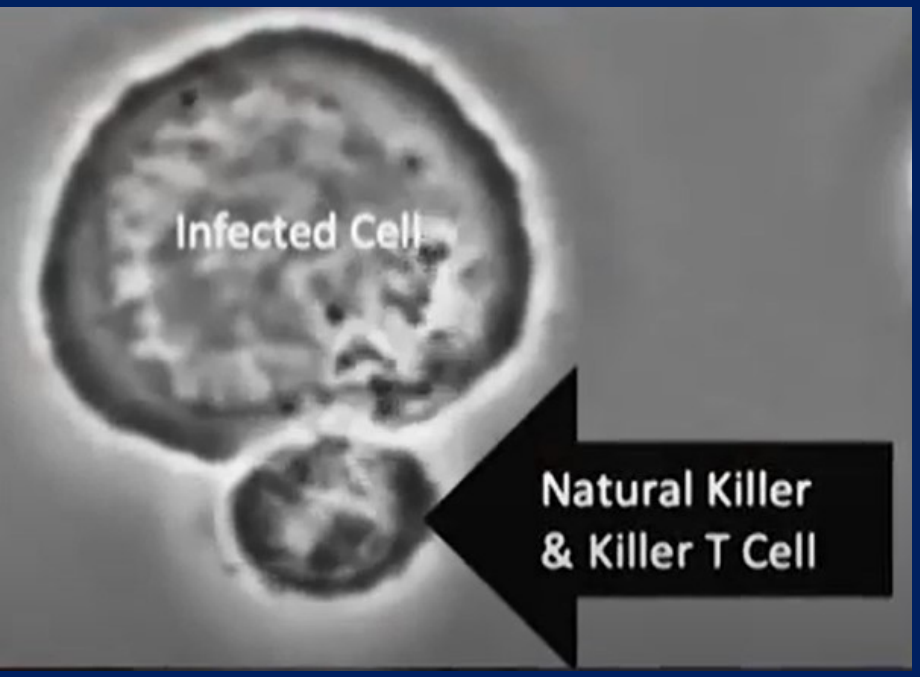


Artemesia annua
Cinnamon
Echinacea
Garlic
Pau D'arco

The Science behind the Coronovirus by Dr Patrick Soon-Shiong

Treatment approaches*

4. Kill the factory of the virus (the infected cell itself) by increasing NK cells and Killer T-cells.



Vitamin D
Vitamin K2 in BCS oil
Blackcumin seed oil
Zinc
Garlic ↑NO

The Science behind the Coronovirus by Dr Patrick Soon-Shiong

Coronavirus: Immune clue sparks treatment hope

By Victoria Gill & Rachael Buchanan
BBC News

22 May 2020 | 489

Share

UK scientists are to begin testing a treatment that it is hoped could counter the effects of Covid-19 in the most seriously ill patients.

It has been found those with the most severe form of the disease have extremely low numbers of an immune cell called a T-cell.

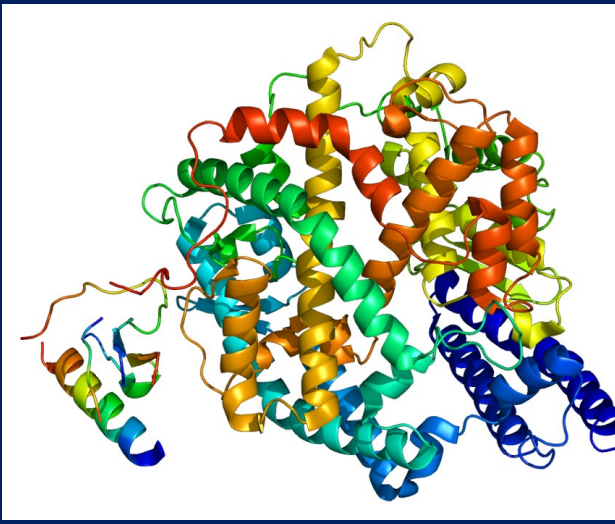
Echinacea purpura?

T-cells clear infection from the body.

The clinical trial will evaluate if a drug called interleukin 7, known to boost T-cell numbers, can aid patients' recovery.

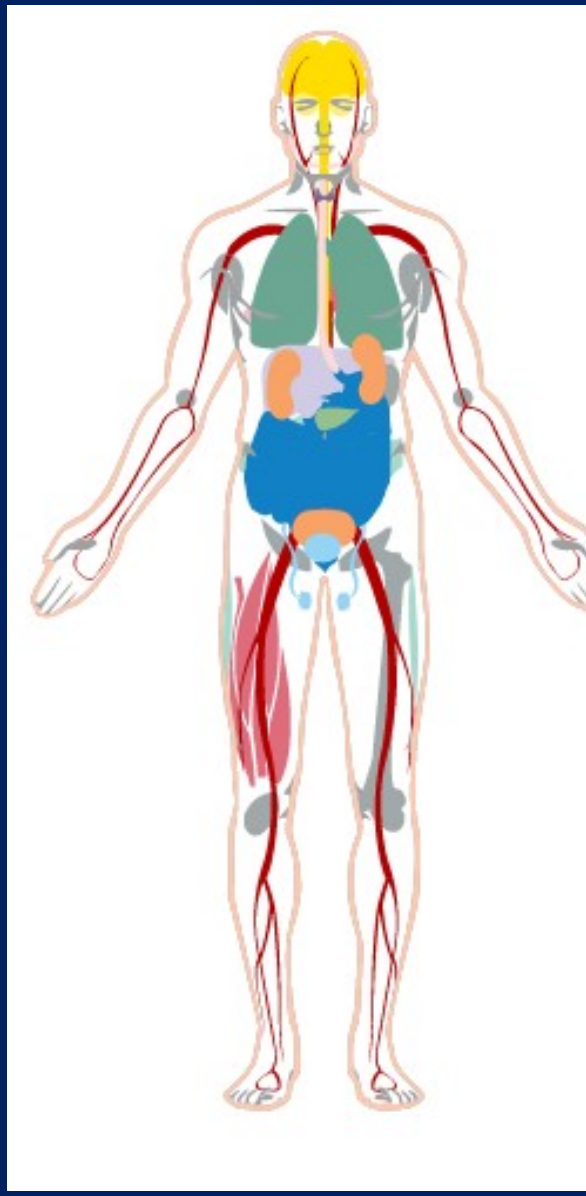
Zinc and the ACE2 receptor

Angiotensin-converting enzyme 2 (ACE2) receptor serves as the entry point into cells for some coronaviruses especially Covid-19.*



*"Gene: ACE2, angiotensin I converting enzyme 2". *National Center for Biotechnology Information (NCBI)*. U.S. National Library of Medicine. 2020-02-28

ACE2 is an enzyme attached to the outer surface (cell membranes) of cells to type 11 aveolar cells of the lungs, arteries and veins, heart, kidney, and small intestines enterocytes.*
Recent research has also shown receptors in the **nasal passages** and the **tongue.**

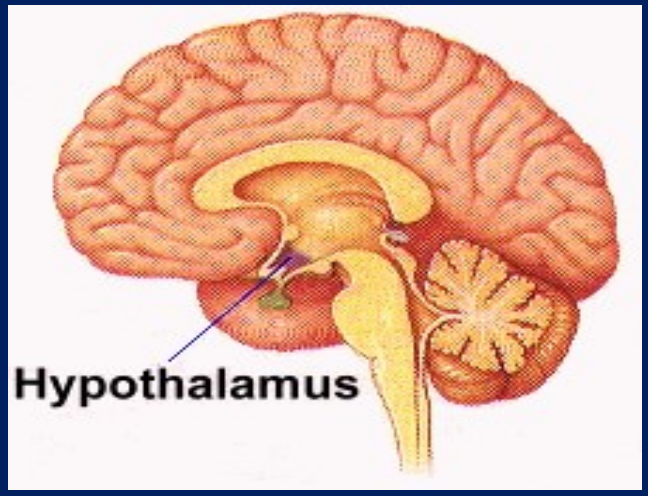


Hamming I, Timens W, Bulthuis ML, Lely AT, Navis G, van Goor H (June 2004). "Tissue distribution of ACE2 protein, the functional receptor for SARS coronavirus. A first step in understanding SARS pathogenesis". *The Journal of Pathology*. 203 (2): 631–7.

Also found in the cerebral ortex, striatum, hypothalamus, nd brainstem.*

abbani, Nadine; Olds, James L (1 April 2020). "Does COVID19 fect the brain? If so, smokers might be at a higher risk". *Molecular harmacology*: 1-7.

Could link with the symptom of delirium with severely infected persons who end up on ventilators.



he expression of ACE2 in cortical eurons and glia make hem susceptible to OVID-19 attack, which as the possible basis f anosmia (loss of mell) and incidences f neurological deficits een in COVID-19.*

18th May 2020

ON THE NOSE Young women more likely to suffer new coronavirus symptom anosmia, docs say

RESEARCHERS found that women in their 30s and 40 were reporting losing their sense of smell and taste more frequently than others. It comes as the government added a loss of taste or smell to the official NHS coronavirus symptoms list today.

NOT TO BE SNIFFED AT Loss of taste and smell FINALLY adde to NHS official coronavirus symptoms – so sufferers should self-isolate

Gemma Mullin | Nick McDermott
18 May 2020, 11:00 | Updated: 18 May 2020, 17:48

ig AM. Neurological manifestations in COVID-19 caused by SARS-CoV-2. CNS urosci Ther. 2020;26(5):499–501.

;32(11):745-51.
Nov;32(11):745-51.
75 Nov;32(11):745-51. doi: 10.1001/archneur.1975.00490530067006

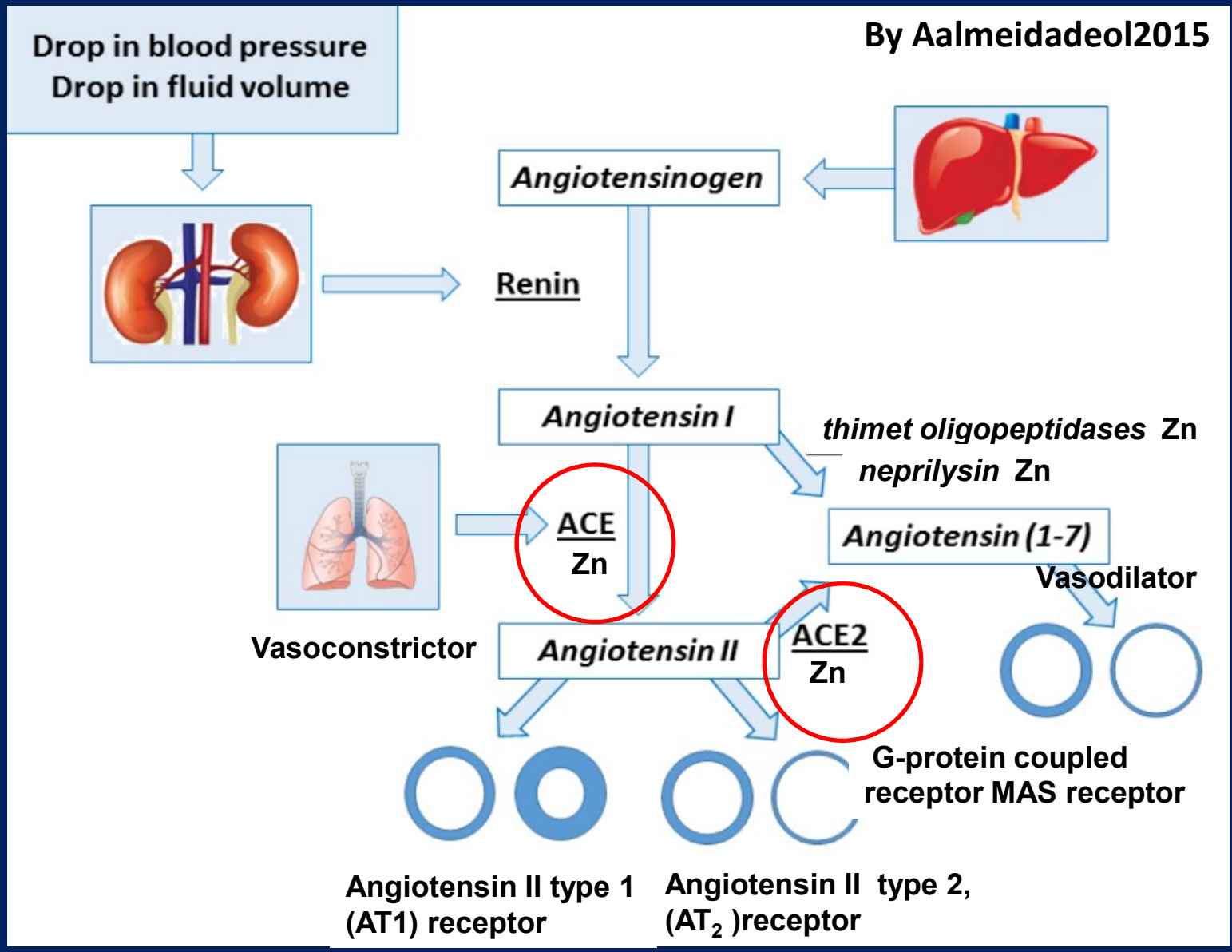
This is curious because we
ind that : "Zinc is also
needed for your senses of
aste and smell. Because
one of the enzymes crucial
or proper taste and smell is
dependent on this nutrient, a
zinc deficiency can reduce
your ability to taste or
smell."*

A Syndrome of Acute Zinc Loss. Cerebellar Dysfunction, Mental Changes, Anorexia, and
ste and Smell Dysfunction

Henkin, B M Patten, P K Re, D A Bronzert

t may be that the symptom of **loss of smell and taste** arises because all of the zinc inside the nfected cells in the nostrils and taste buds has been used up by these cells in ighting the viral nfection.

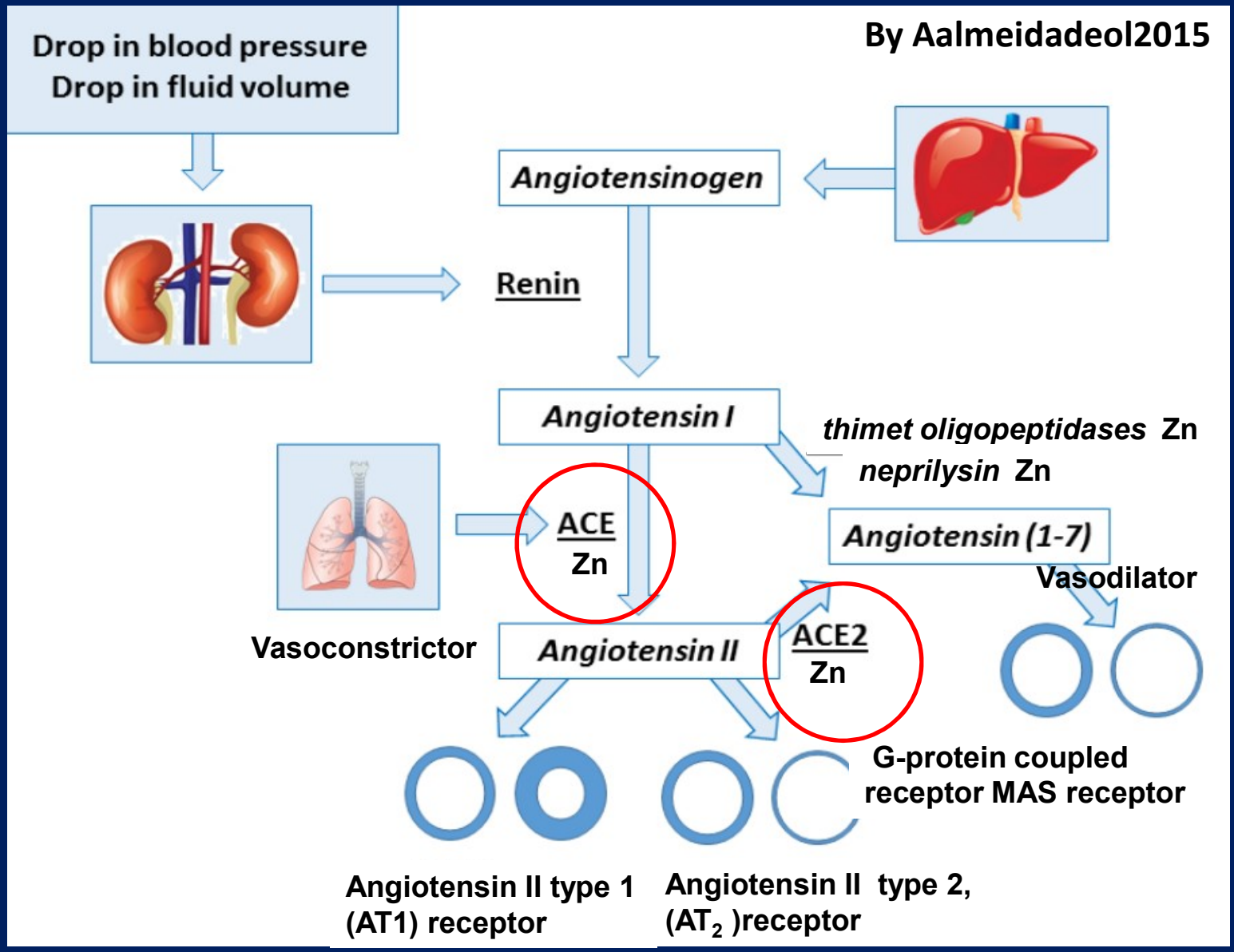
CE2 lowers lood pressure by atalysing the ydrolysis f angiotensin II (a asoconstrictor eptide) nto angiotensin l–7) a vasodilator).*

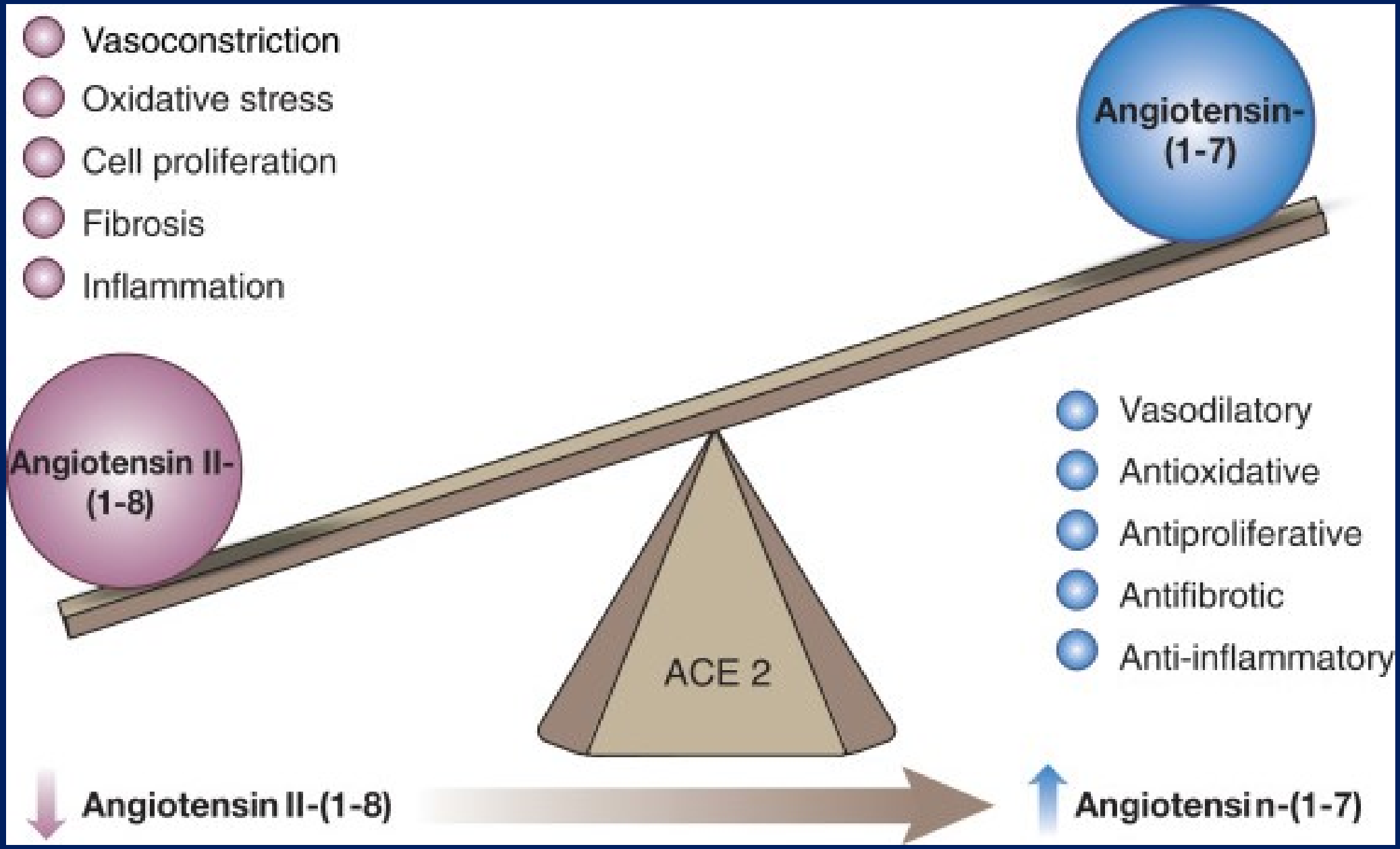


idar S, Kaplan M, Gamliel-arovich A (February 2007). "ACE2 of heart: From angiotensin I to giotensin (1-7)". *Cardiovascular search*. 73 (3): 463–9.

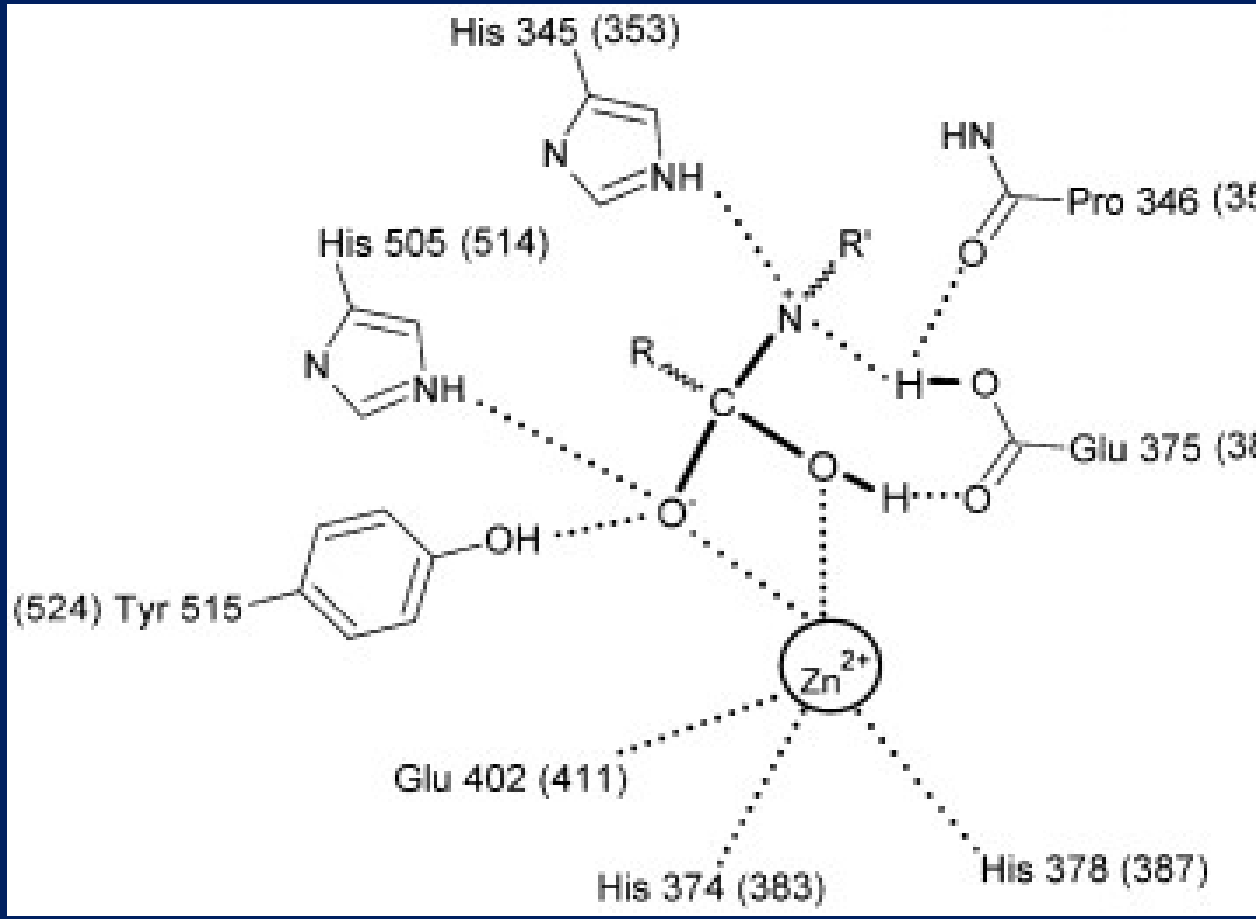
CE2 counters the ctivity of the elated angiotensin converting nzyme (ACE) by educing the mount of ngiotensin-II and ncreasing ngiotensin (1-7).*

hamsi-Pasha MA, Shao Z, Tang WH rch 2014). "Angiotensin-converting yme 2 as a therapeutic target for rt failure". Current Heart Failure orts. Springer Science and siness Media LLC. 11 (1): 58–63.




Vasoconstriction
Oxidative stress
Cell proliferation
Fibrosis
Inflammation
Angiotensin-(1-7)
Angiotensin II-(1-8)
ACE 2
Vasodilatory
Antioxidative
Antiproliferative
Antifibrotic
Anti-inflammatory
Angiotensin II-(1-8)
Angiotensin-(1-7)

ACE2 is a zinc containing metallo-enzyme located on the surface of endothelial and other cells.*



Identification of critical active-site residues in angiotensin-converting enzyme-2 (ACE2) by site-directed mutagenesis

Jodie L. Guy, Richard M. Jackson, Hanne A. Jensen, Nigel M. Hooper, Anthony J. Turner

First published:19 July 2005 | https://doi.org/10.1111/j.1742-4658.2005.04756.x | Citations: 2

J. L. Guy, School of Biochemistry and Microbiology, University of Leeds, Leeds LS2 9JT, UK

*Turner AJ (2015). "Chapter 25: ACE2 Cell Biology, Regulation, and Physiological Functions". In Unger T, Ulrike M, Steckelings UM, dos Santos RA (eds.). *The Protective Arm of the Renin Angiotensin System (RAS): Functional Aspects and Therapeutic Implications*. Academic Press. pp. 185–189.

nterestingly all
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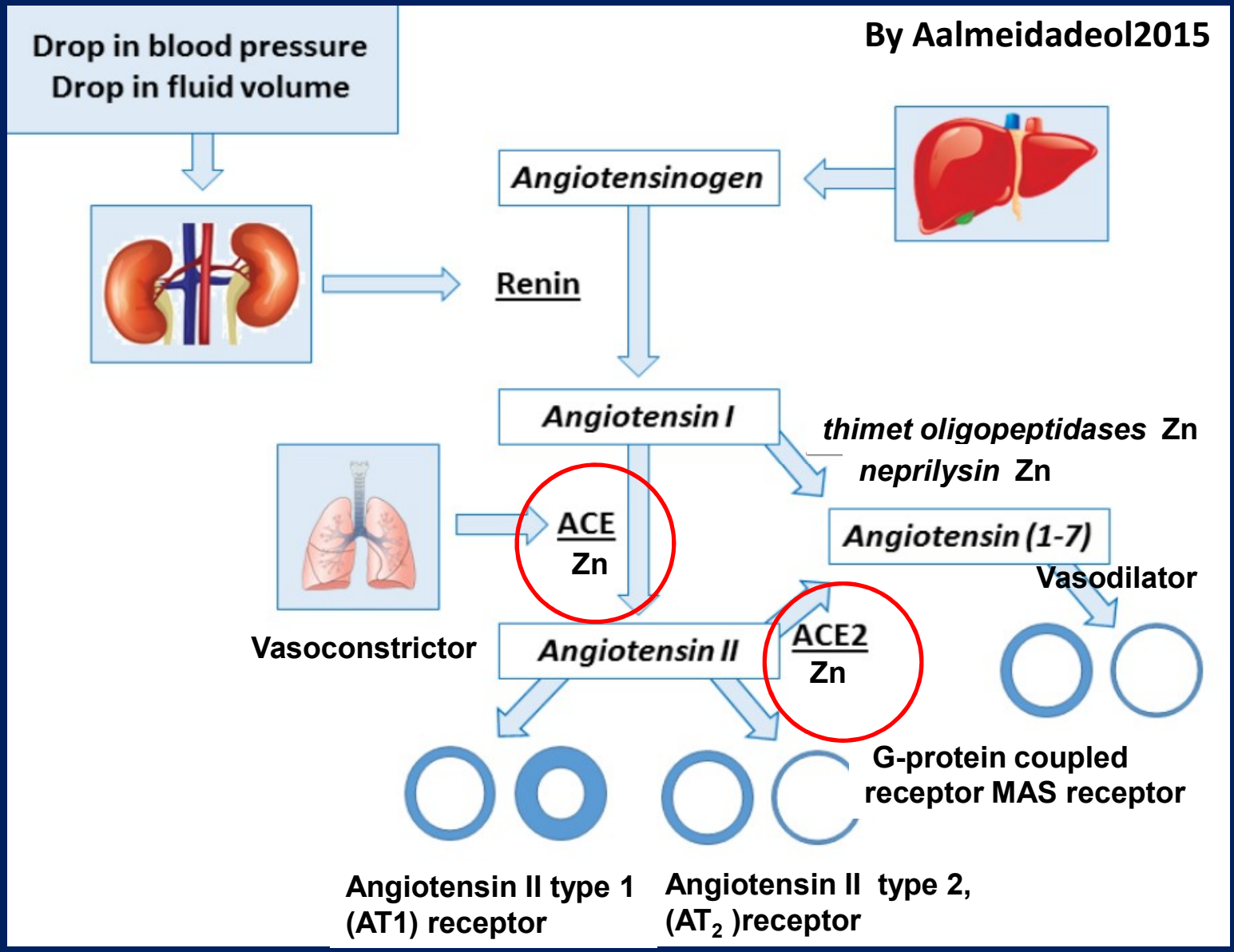
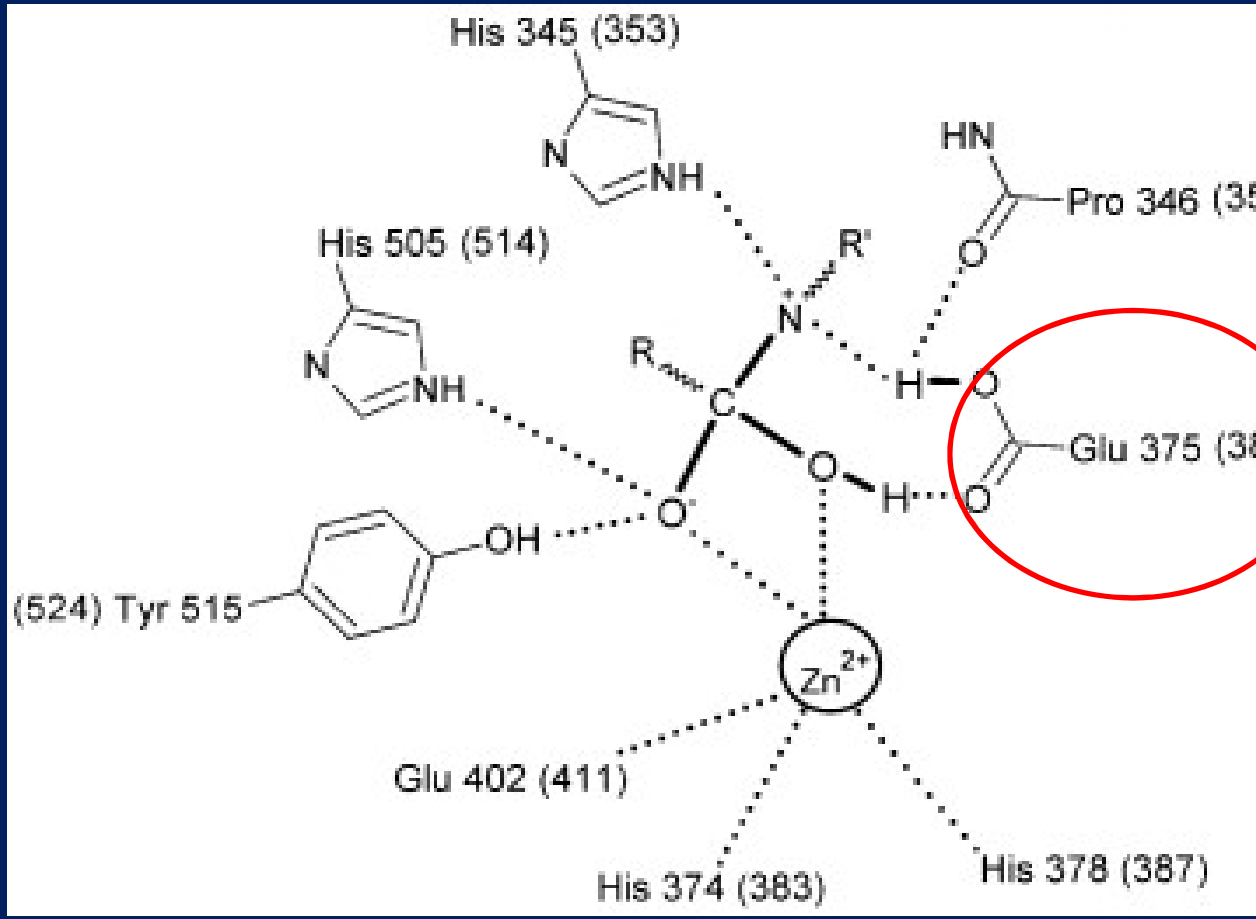
ACE
ACE 2
Neprilysin (NEP)
Thimet
oligopeptidases
TOP)



The Zinc (Zn++) co-factor in the ACE2, is necessary to attach to the negatively charged Glutamic acid amino acid in its structure to change the conformation of the protein from an inactive form to an active form.



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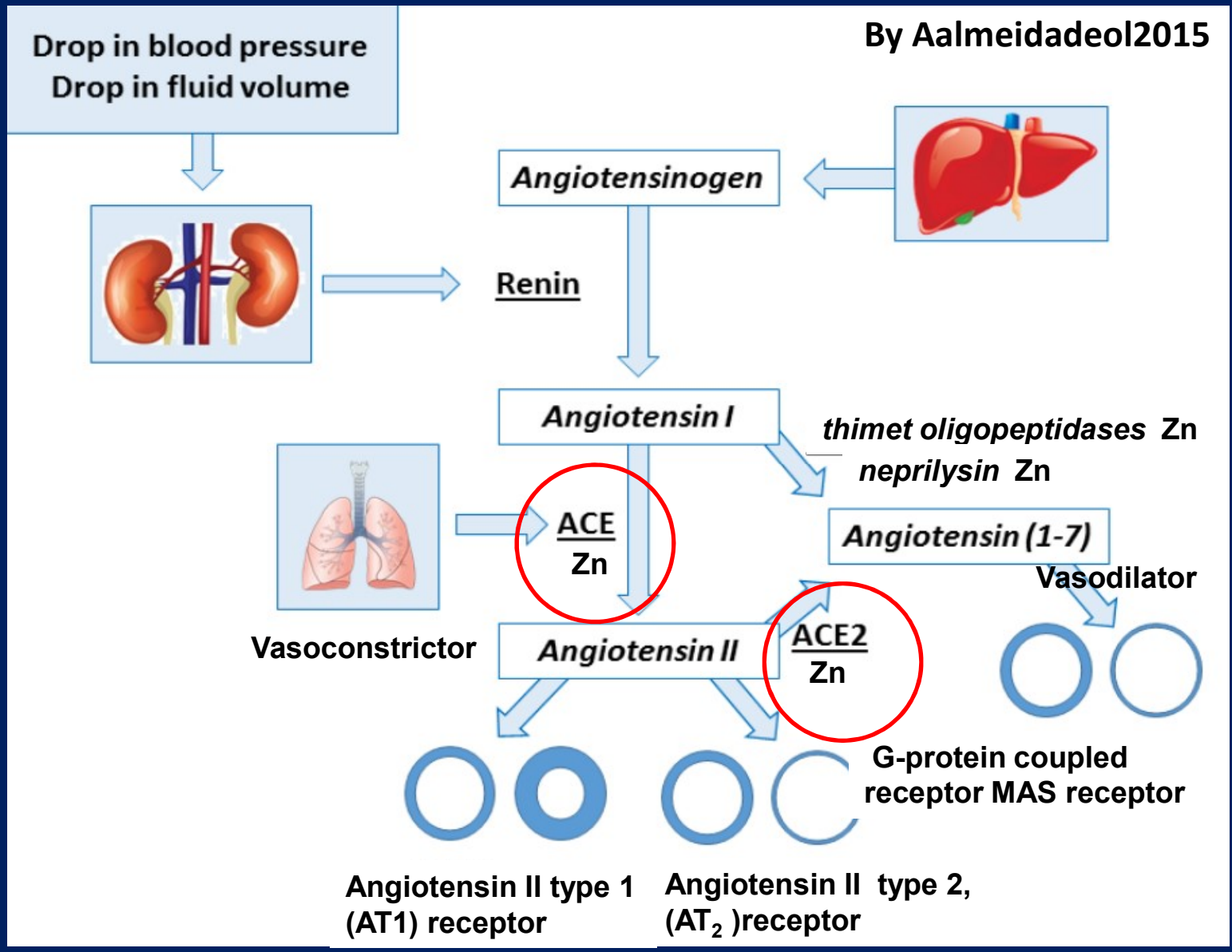
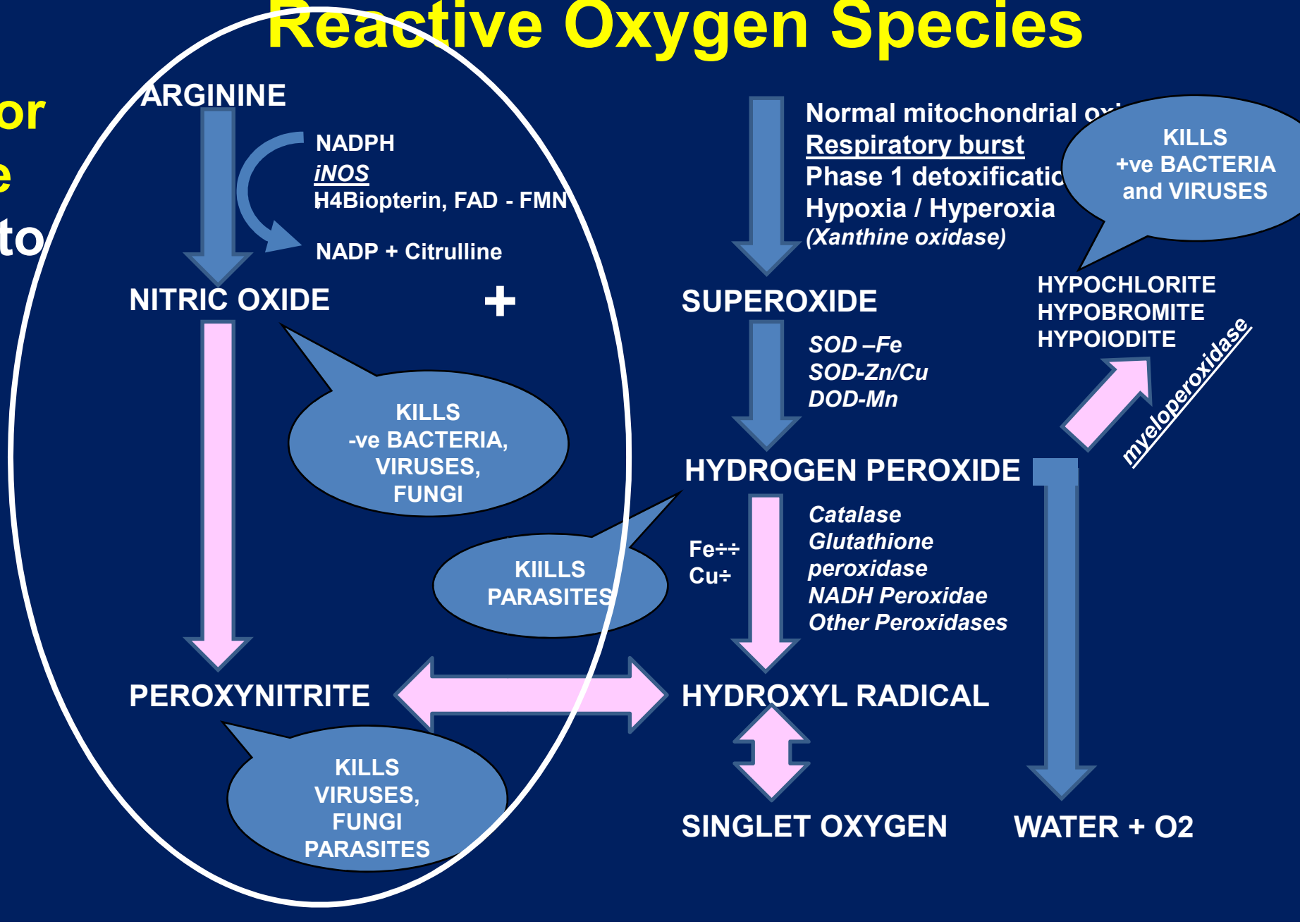
Angiotensin (1-7) has been shown to have anti-oxidant and anti-inflammatory effects. It plays protective roles in cardiomyocytes of spontaneously hypertensive rats by increasing the expression of endothelial and neuronal nitric oxide synthase enzymes leading to augmented production of nitric oxide.

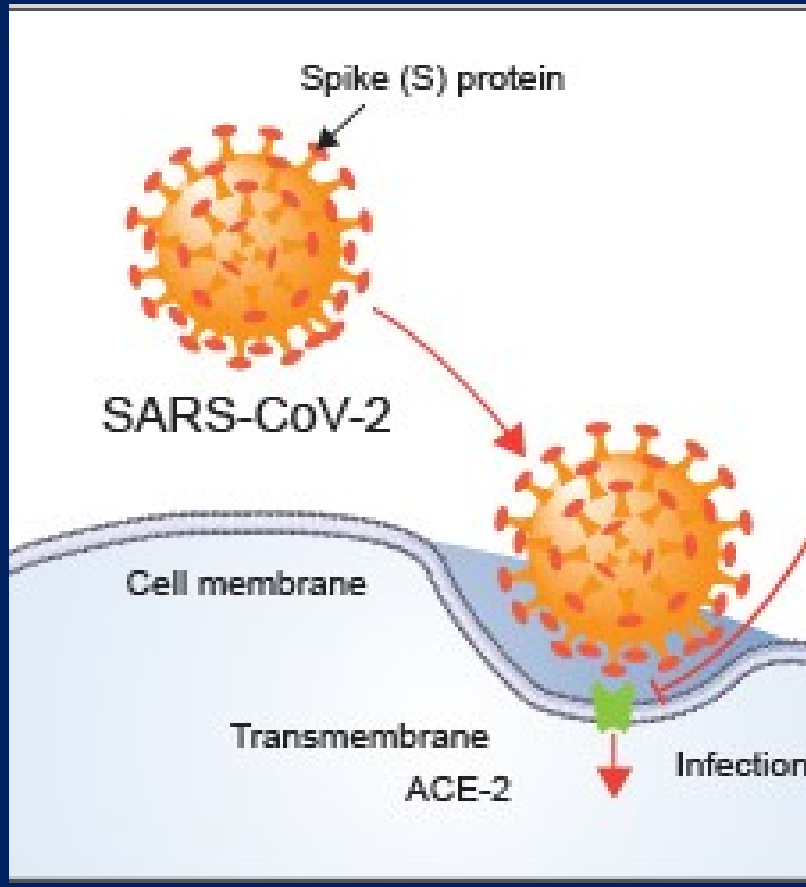


Reactive Oxygen Species

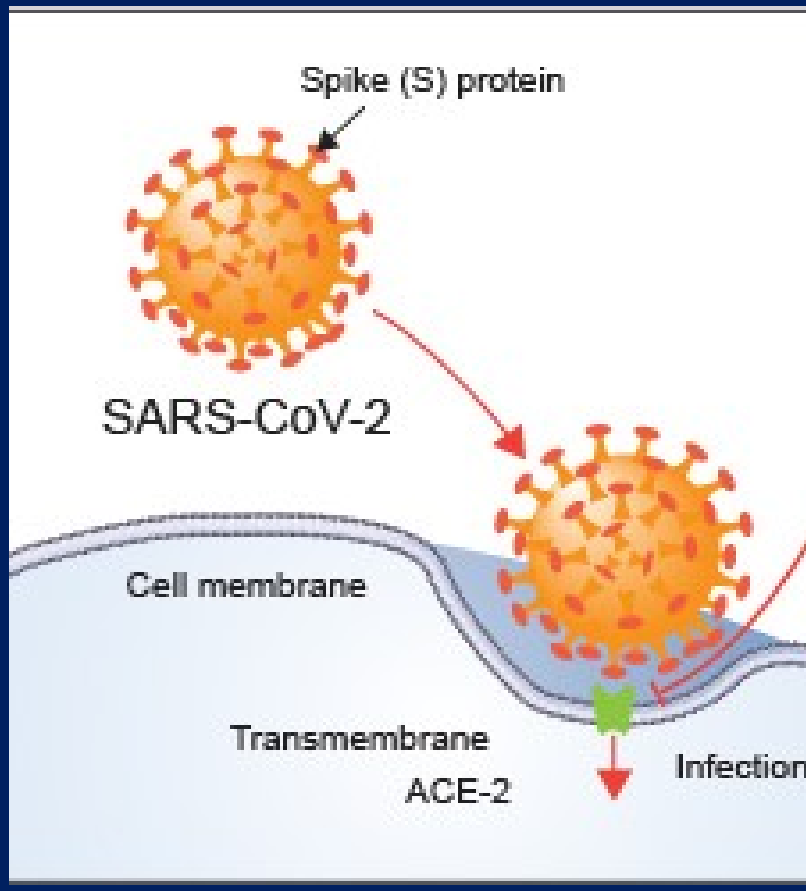
Nitric oxide or Peroxynitrite are thought to be the mechanism that the immune system destroys Covid 19.

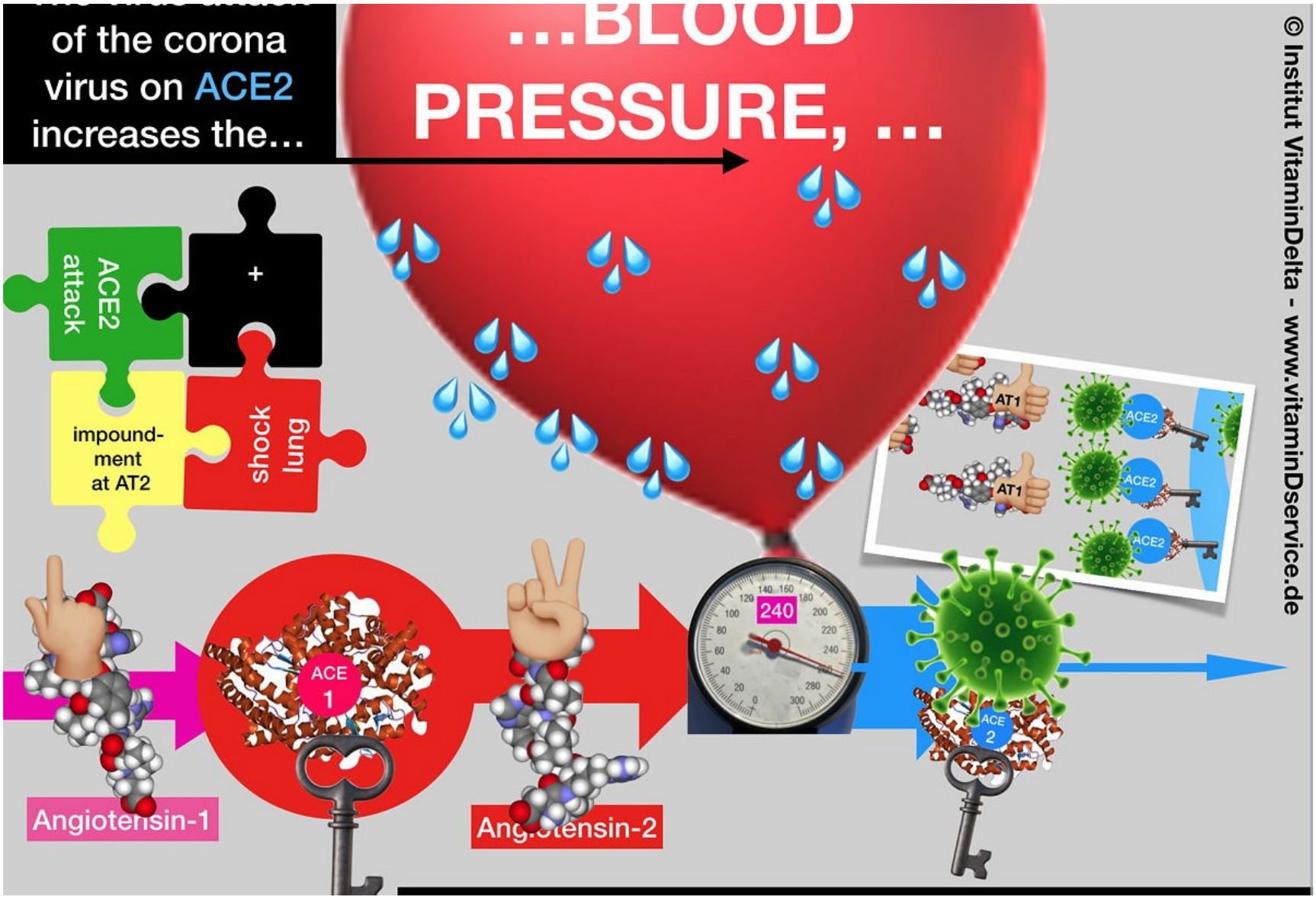


COVID-19 virus enters human cells via the ACE2 receptor. Viral particles bind to the ACE2 receptor and together they travel into the cell. These viral particles can bind to a large number of ACE2 molecules, sequestering them from the cell surface and decreasing ACE2.



The accompanying loss of ACE2 function can cause serious health consequences due to ACE2's participation in key physiological processes such as regulating blood pressure. Vitamin D




of the corona virus on ACE2 increases the…
…BLOOD PRESSURE, …
ACE2 attack
+
impound-ment at AT2
shock lung
AT1
AT1
ACE2
ACE2
ACE2
240
ACE 1
ACE 2
Angiotensin-1
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© Institut VitaminDelta - www.vitaminDservice.de

eficiency of Vitamin D
ads to over
xpression of renin (an
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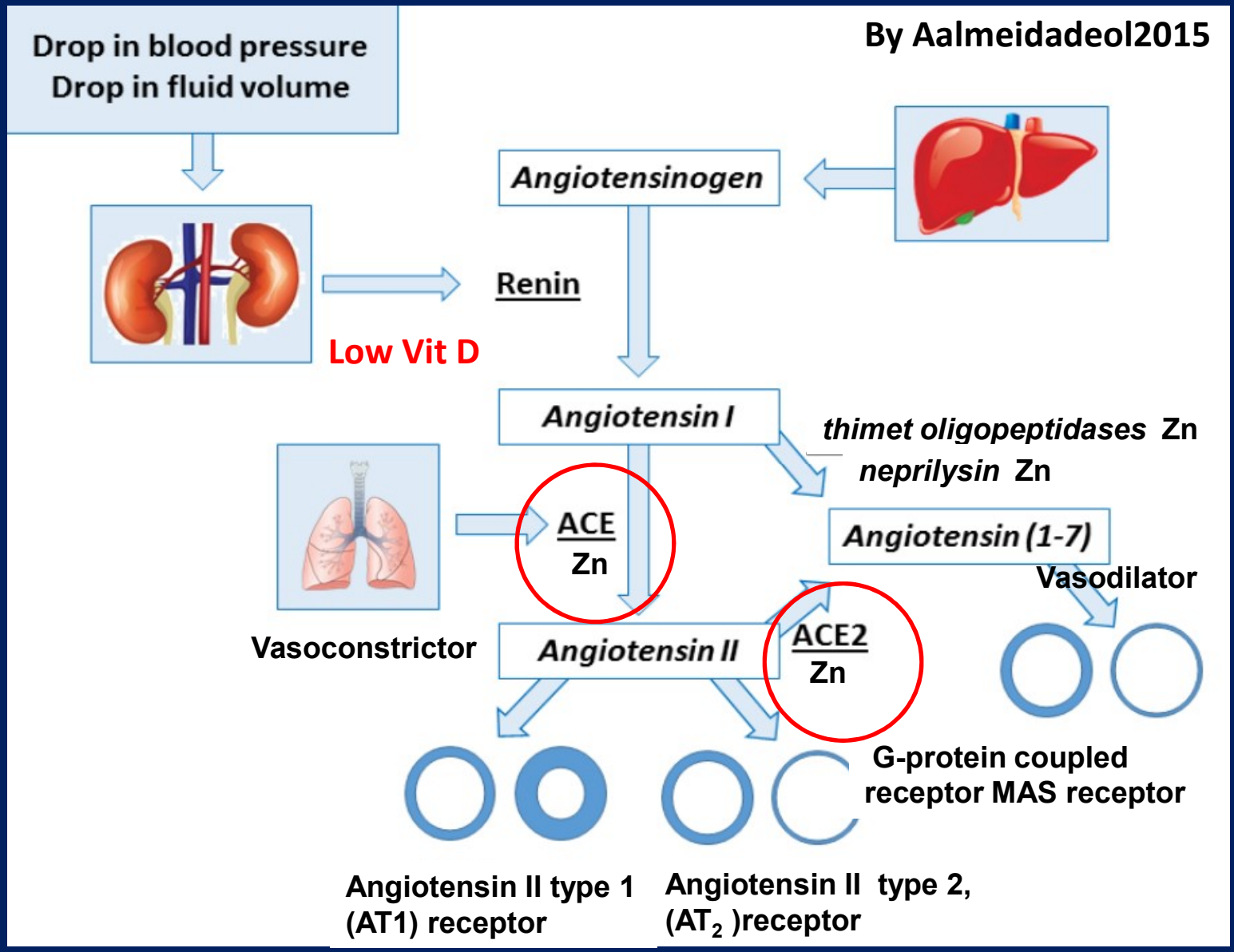

oss of ACE2 function
the setting of
OVID-19 infection
osets the balance of
is critical system,
omoting neutrophil
filtration, excessive
flammation, and lung
jury. If lung injury
ogresses to hypoxia,
e kidneys release
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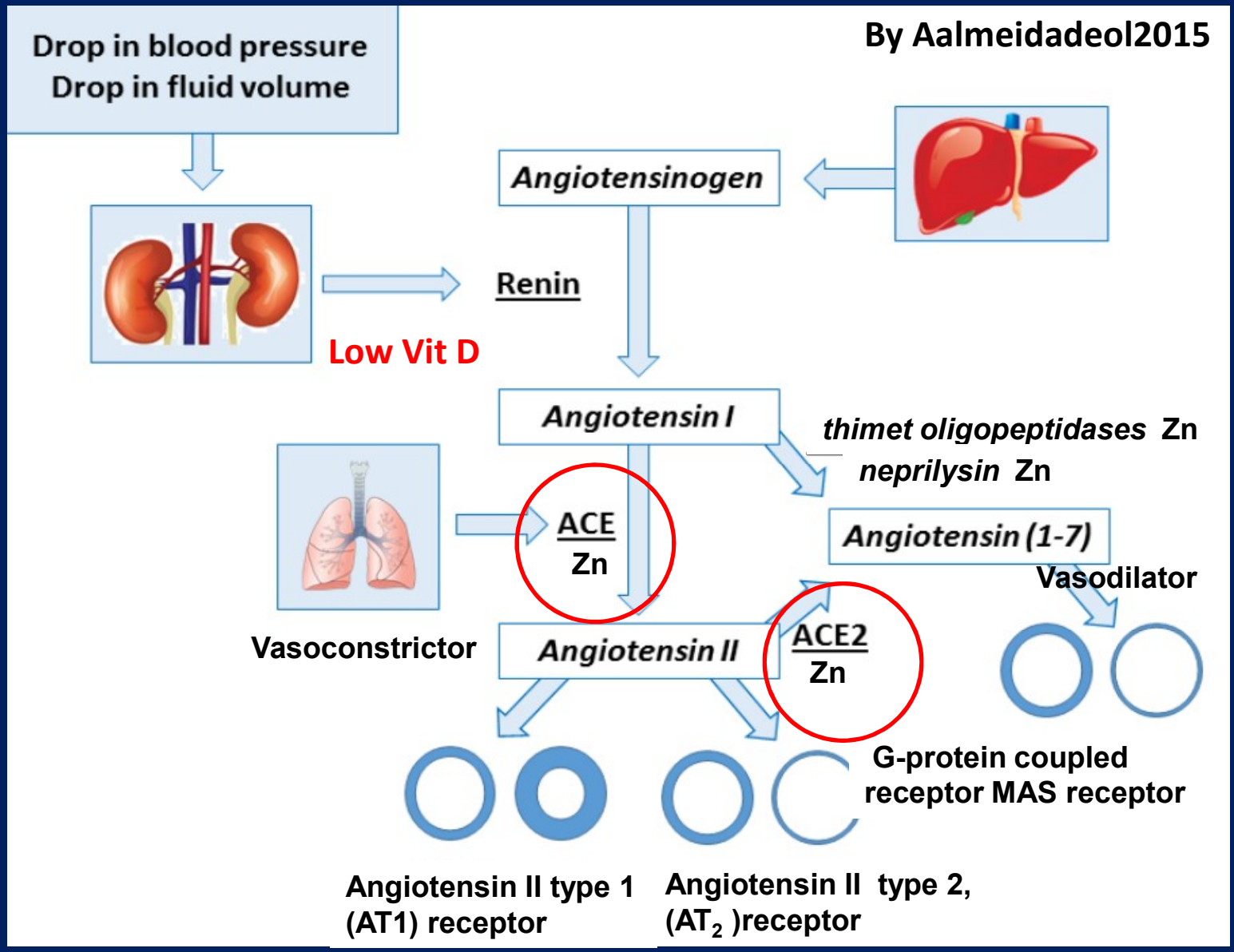
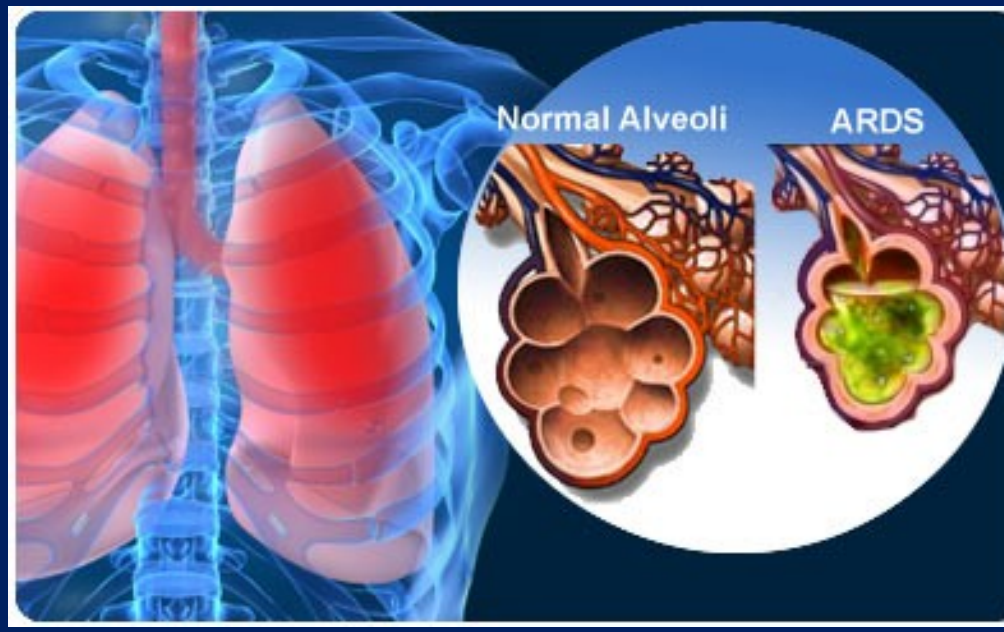
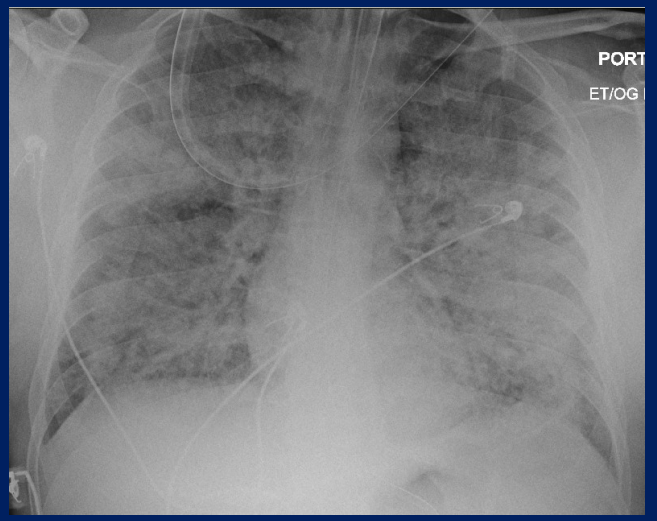
cious cycle for
ecreasing ACE2.



n turn, lower levels of
ACE2 promote more
damage, culminating in
acute respiratory distress
syndrome, or ARDS. a
severe form of acute lung
njury that occurs in as
many as 17 percent of all
COVID-19 cases and can
ead to respiratory failure
and death.

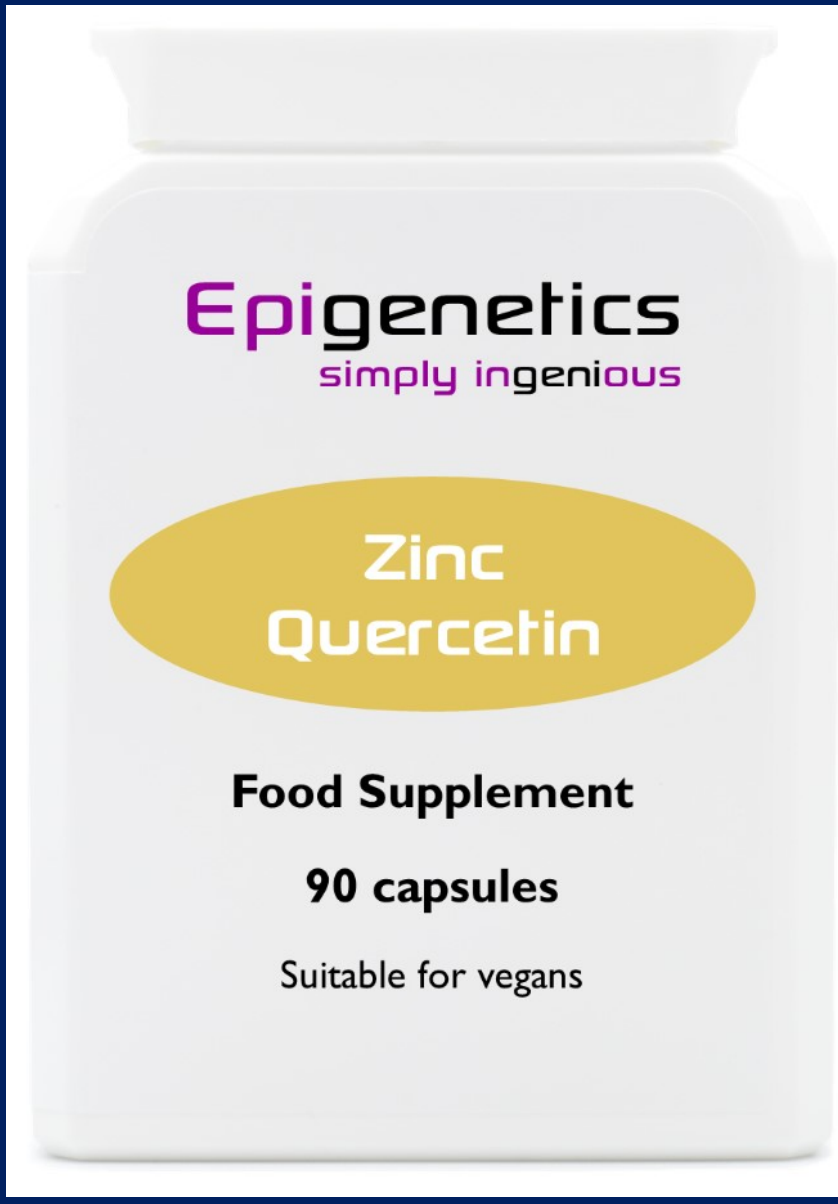




Zinc decreases and stalls viral replication.

Zinc is a charged particle **(Zn++)** and lipid membranes do not allow charged particles to enter the cell.

Thus to get zinc inside the cell an **ionophore** (carrier) is required.* Quercitin is a natural zinc ionophore.

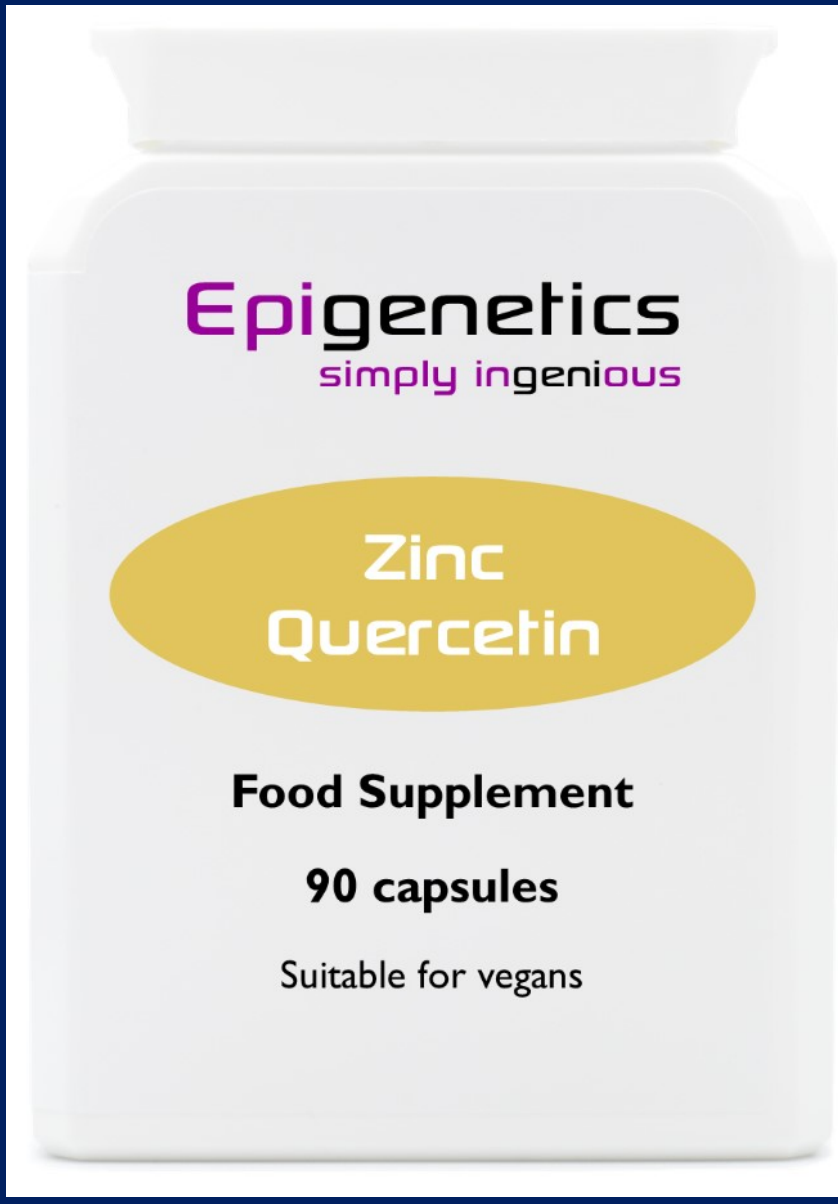


T Velthuis et al, ' Zn(2+) inhibits coronavirus and arterivirus RNA polymerase activity in vitro and zinc ionophores block the replication of these viruses in cell culture'. PLoS Pathog 2010 PLoS Pathog. 2010 Nov ;6(11): e1001176. doi: 10.1371/journal.ppat.1001176.

Best compounds to get zinc into the cells and to activate the ACE2 enzyme would therefore be*

Quercitin (natural zinc ionophore)
Plus Zinc ascorbate and Zinc sulfate

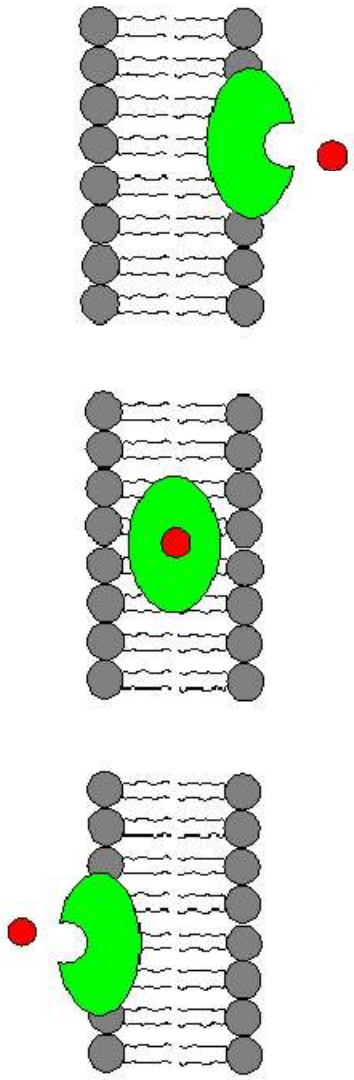
Dr Zelenka recommends 220mg elemental zinc daily for 5 days during acute infection.
https://drrandybaker.com/2020/04/03/zinc-quercitin-an-effective-treatment-for-covid-19/



Combatting Viral Infections with Zinc and Quercitin

A South Korean research paper has demonstrated in Vitro that by increasing the Zinc concentration in cellular cytoplasm, that viral replication is inhibited.

As intracellular levels of Zinc are increased the inhibition of viral replication can reach 100% according to charts within the paper. The researchers used two antimalarial drugs which are Ionophores. Ionophores are molecules that can carry a charged ion like Zinc across a cellular membrane.

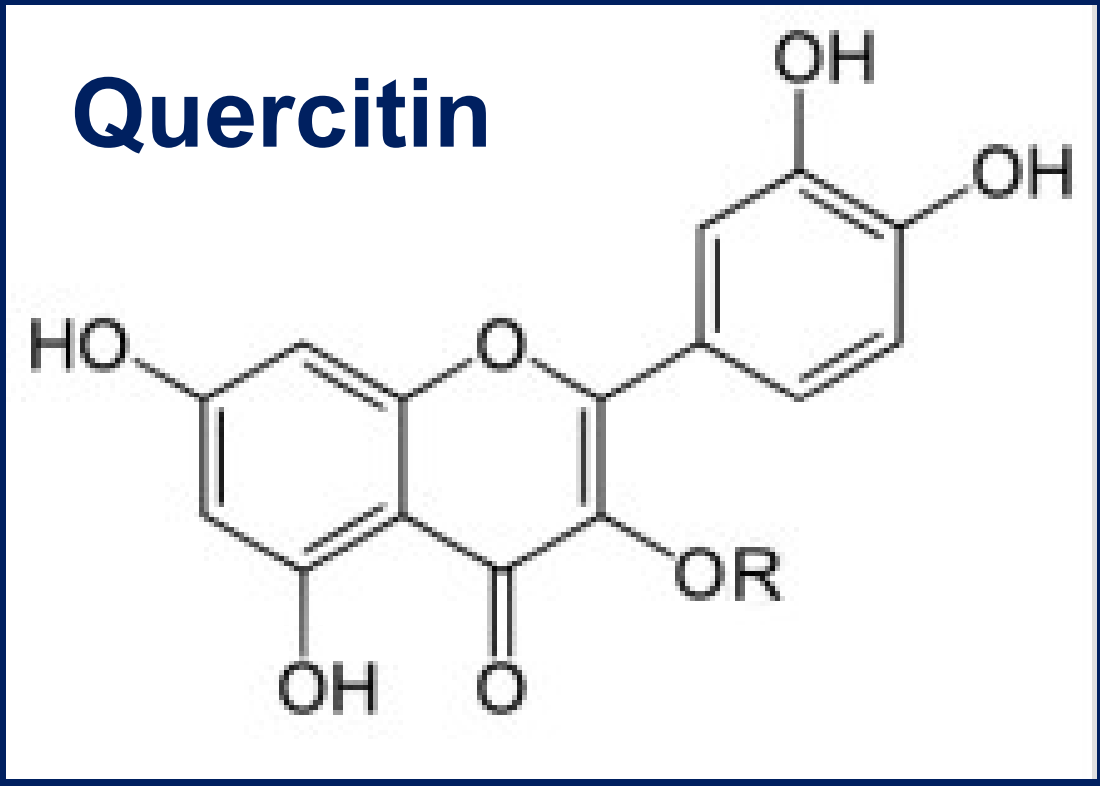


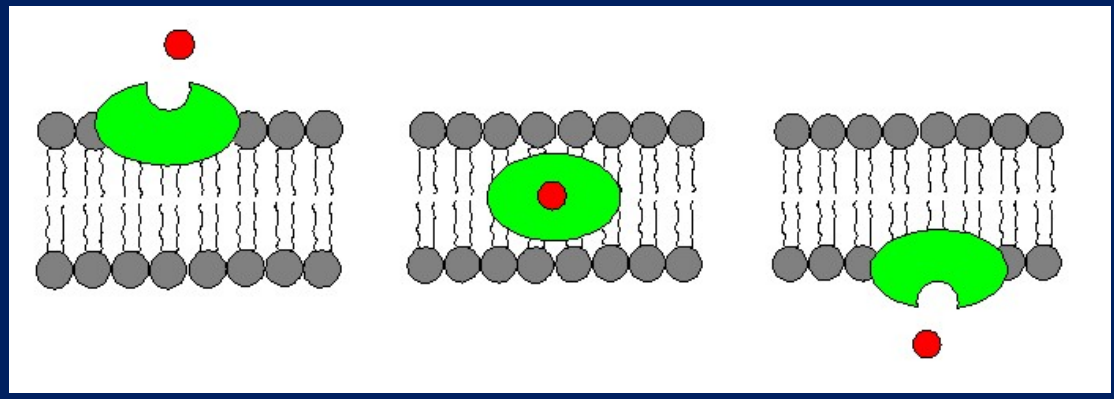
South Korea has been
treating high risk, critically
ll COVID-19 patients with
the drug
Hydroxychloroquine. It is
likely the single clinical
reason that South Korea
has the lowest death rate in
the world for COVID-19
victims. *

https://nutritionalpharmacology.wordpress.com/2020/03/21/combating-
ovid-19-with-zinc-and-quercetin/

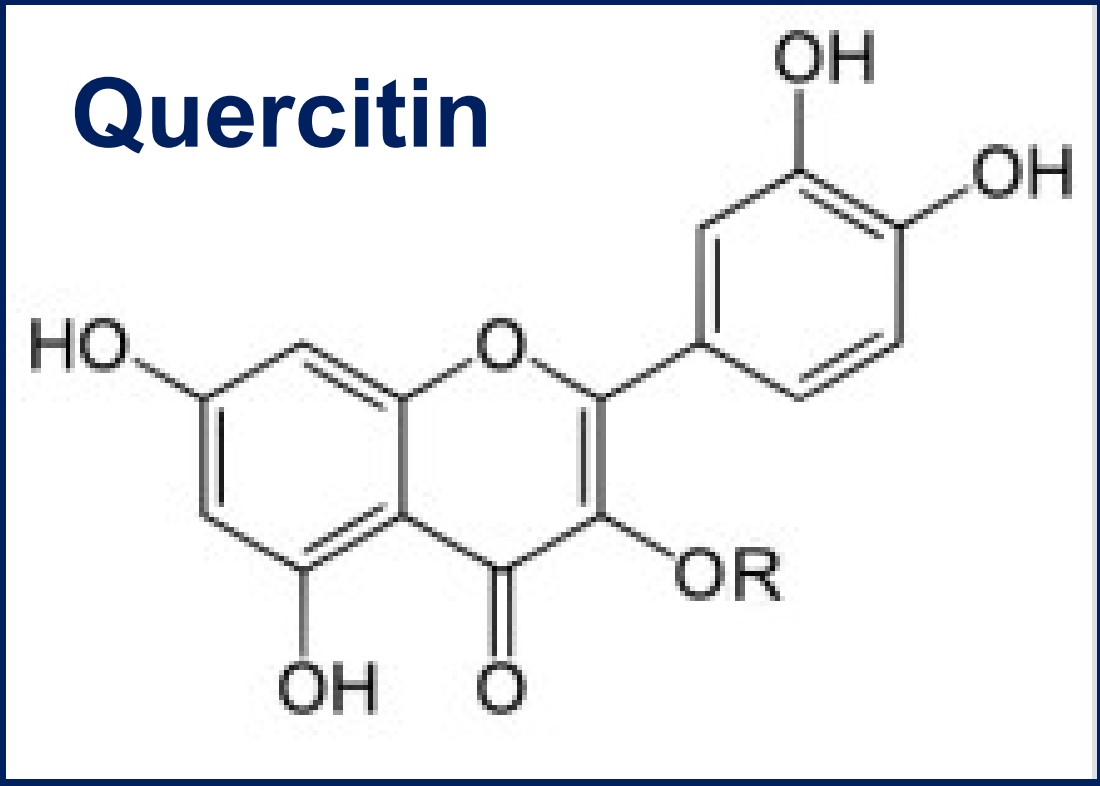
d-City Times via ZUMA Wire/REX

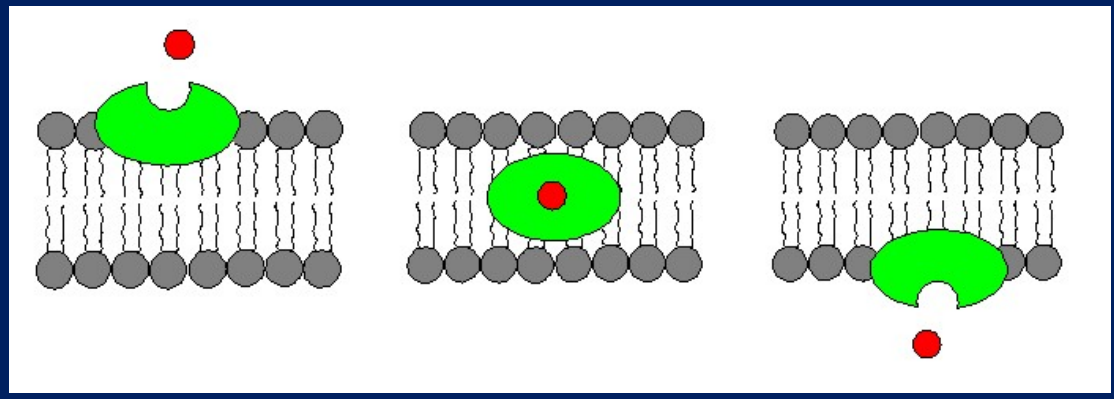
Hydroxychloroquine is a pharmaceutical drug that requires a prescription and can have cardiac side effects. However, there is a nutritional supplement called **Quercetin** that is a Zinc Chelator and Ionophore and requires no prescription.





Quercetin has well established benefits to lung health, which may be important when combatting a lung infection like COVID-19. Quercetin is a flavonoid, specifically a flavanol, from the polyphenol group of compounds found in food and essential for human health.





Foods such as

Capers – (twice any other food)

Lovage leaves

Elderberry juice

Radish leaves

Wild Rocket

Dill

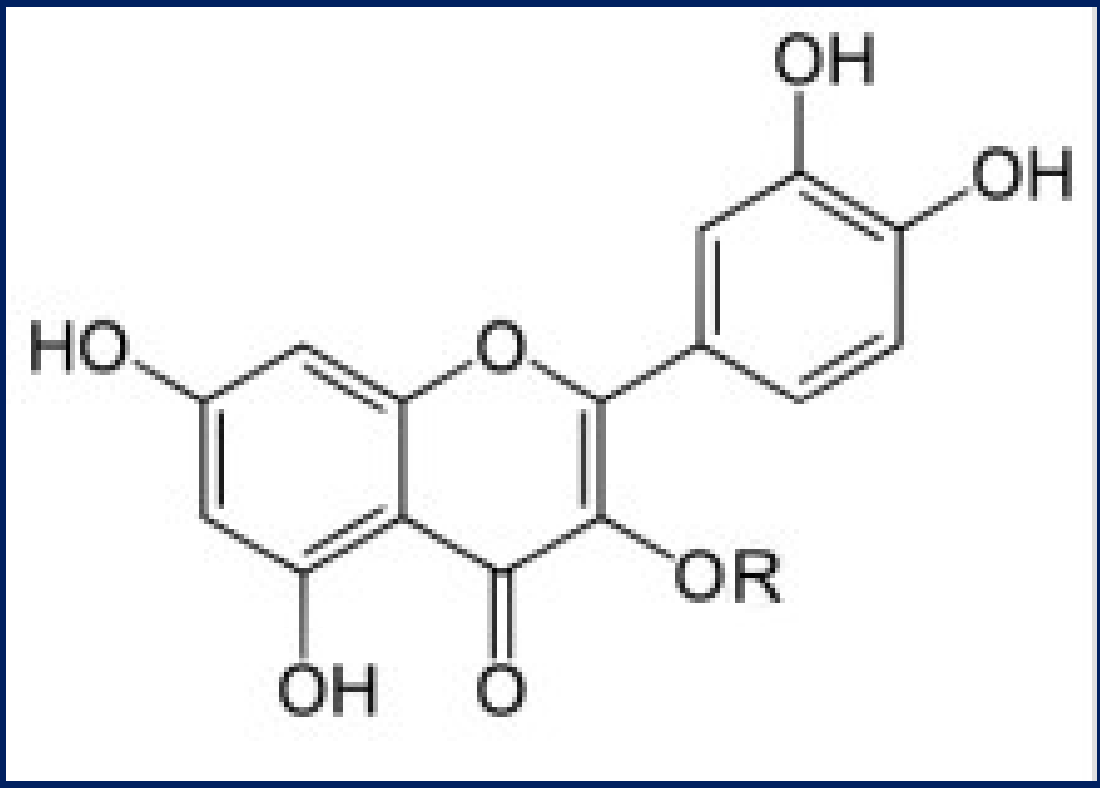
Coriander (Cilantro) herb

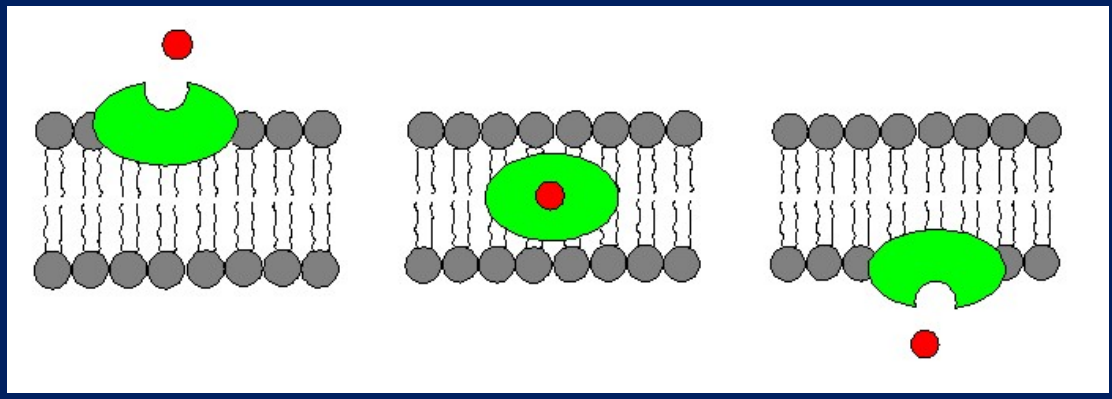
Fennel leaves

Red onions **("Cipolla Rossa di Tropea")**

Some flavonoids – like **Quercetin** – are broad spectrum antivirals.*

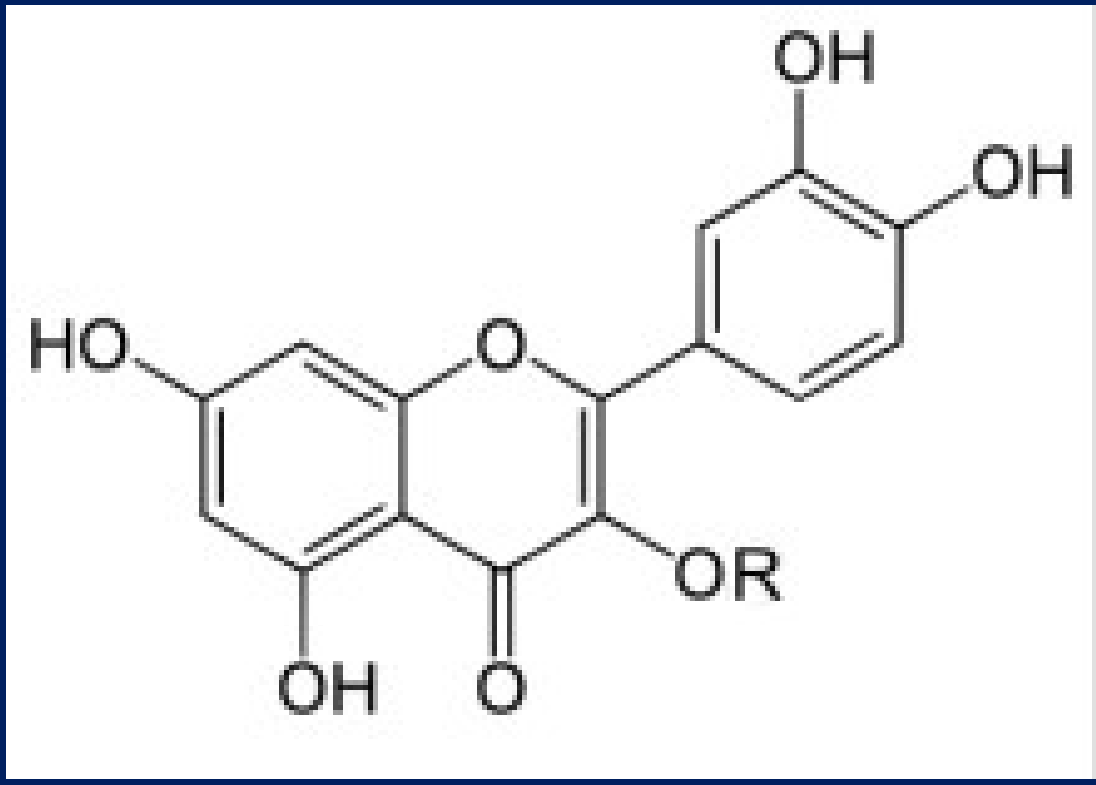
Quercetin has a number of beneficial processes in the body, it's not just a zinc ionophore i.e. an antioxidant, a protein kinase enzyme inhibitor and an estrogen receptor activator.**

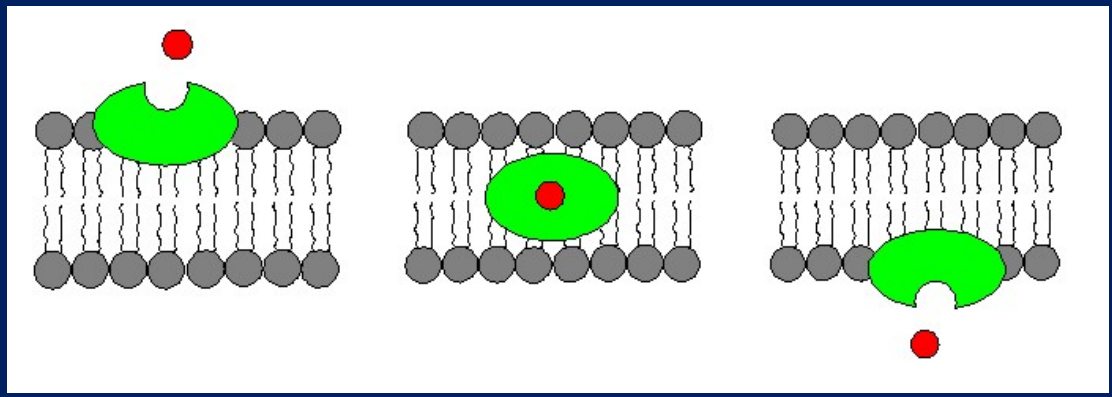




https://www.ncbi.nlm.nih.gov/pubmed/22350287
https://www.sciencedirect.com/science/article/pii/S2352914816300065
Moutsatsou P (2007). "The spectrum of phytoestrogens in nature: our knowledge is expanding". (review). *Hormones (Athens, Greece)*. 6 (3): 173–93.

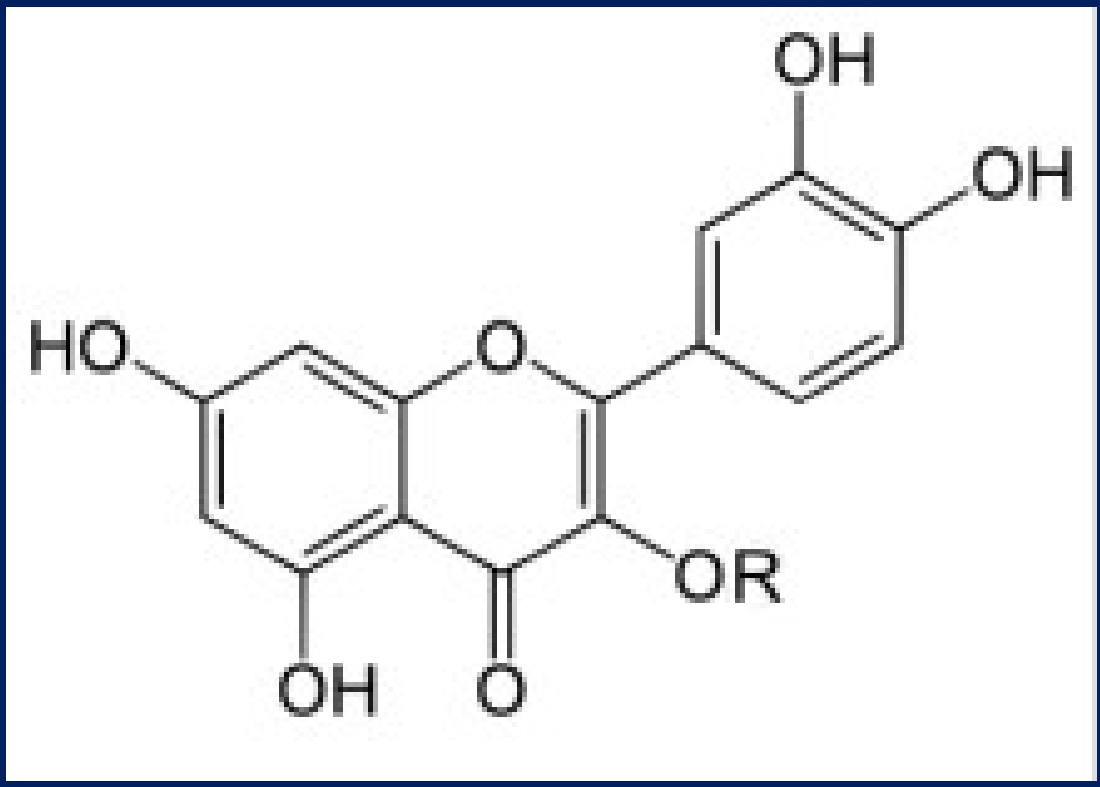
The **ionophore** mechanism responsible for the accumulation of intracellular zinc occurs because the cytoplasm is slightly acidic, and the lysosomes are very acidic. The **quercetin** carrying zinc is slightly alkaline so once inside they disassociate leaving the zinc trapped inside to accumulate.

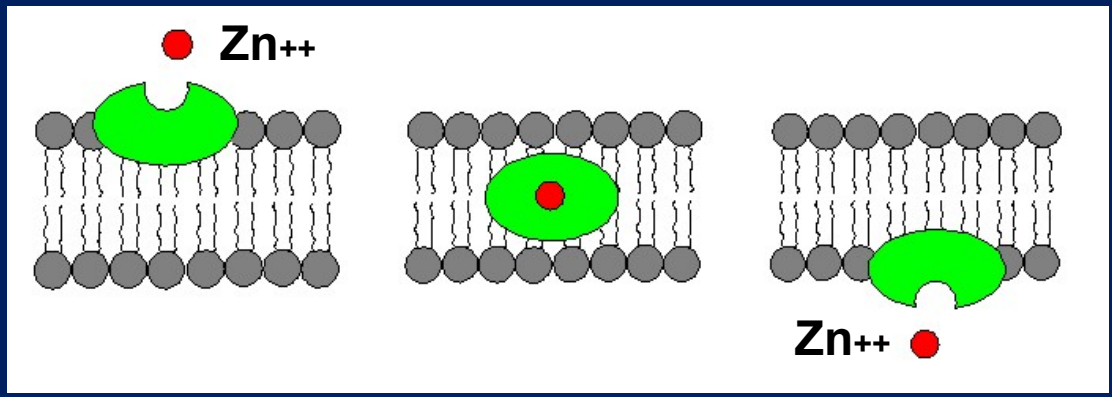




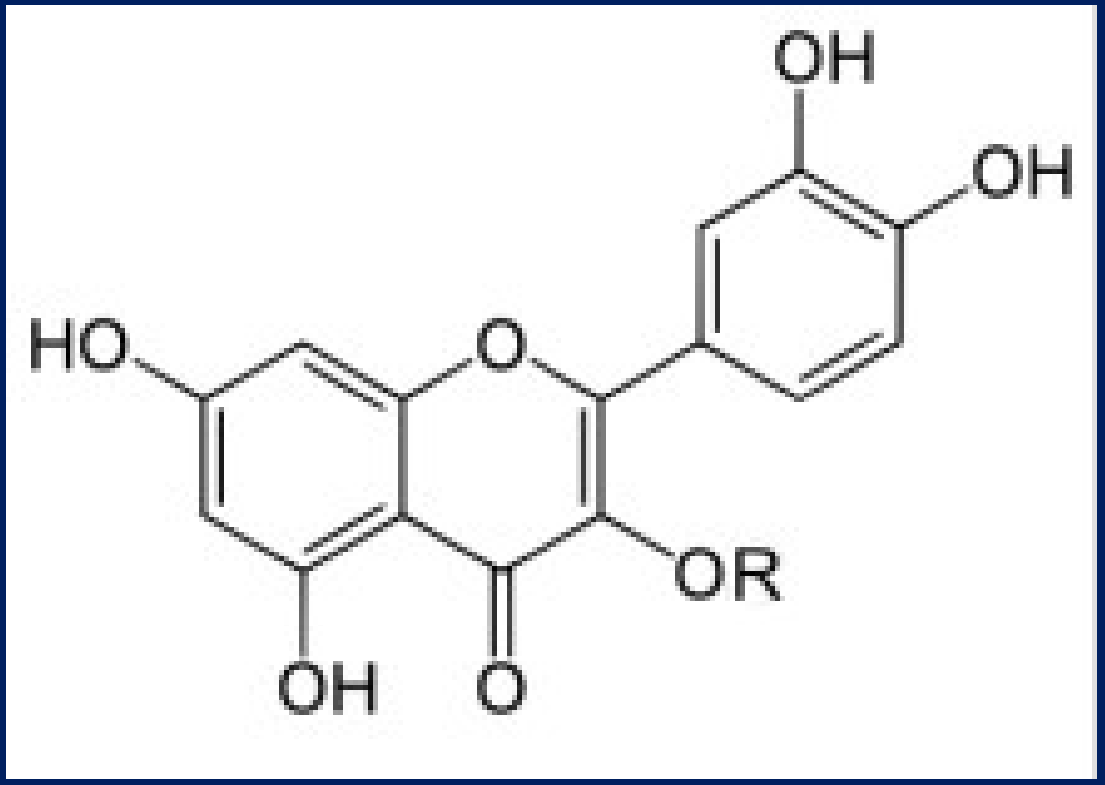
Chelators can both remove a metal into or out of the body.

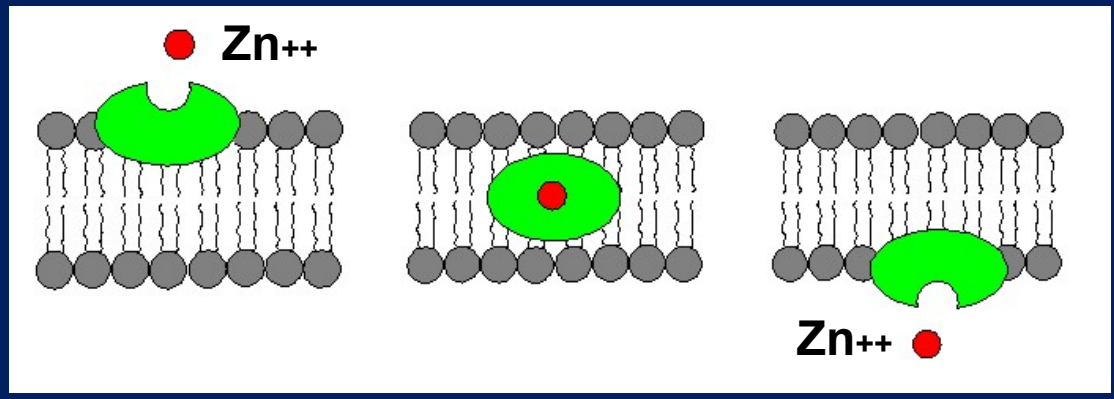
Ionophore binds to zinc and carries it past the cell wall bypassing the zinc transporter.



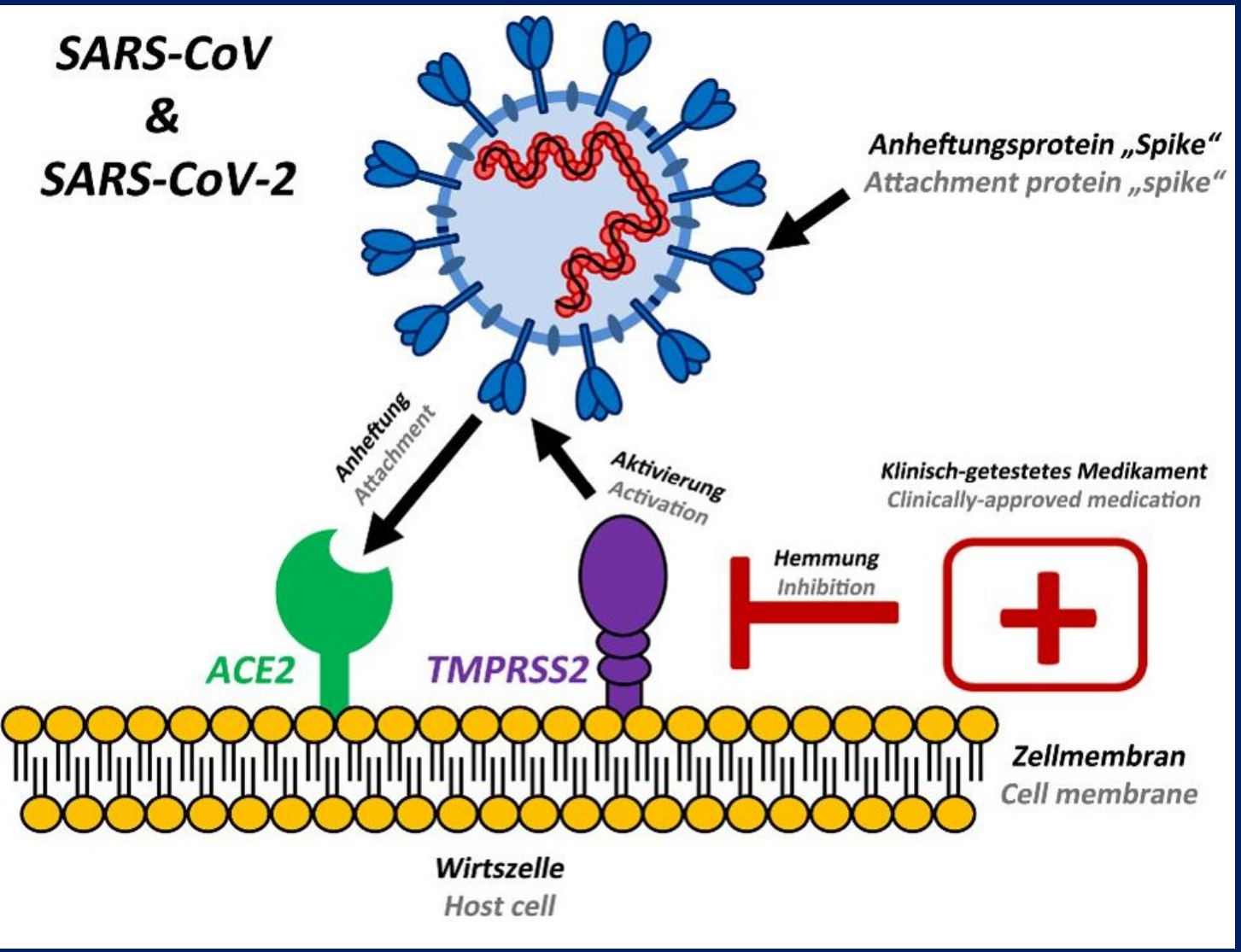


Quercitin fills up the cell's ion channels that **COVID-19** uses to inflame intracellularly and also inhibits serine protease reaction used by COVID-19 to mass replicate.*





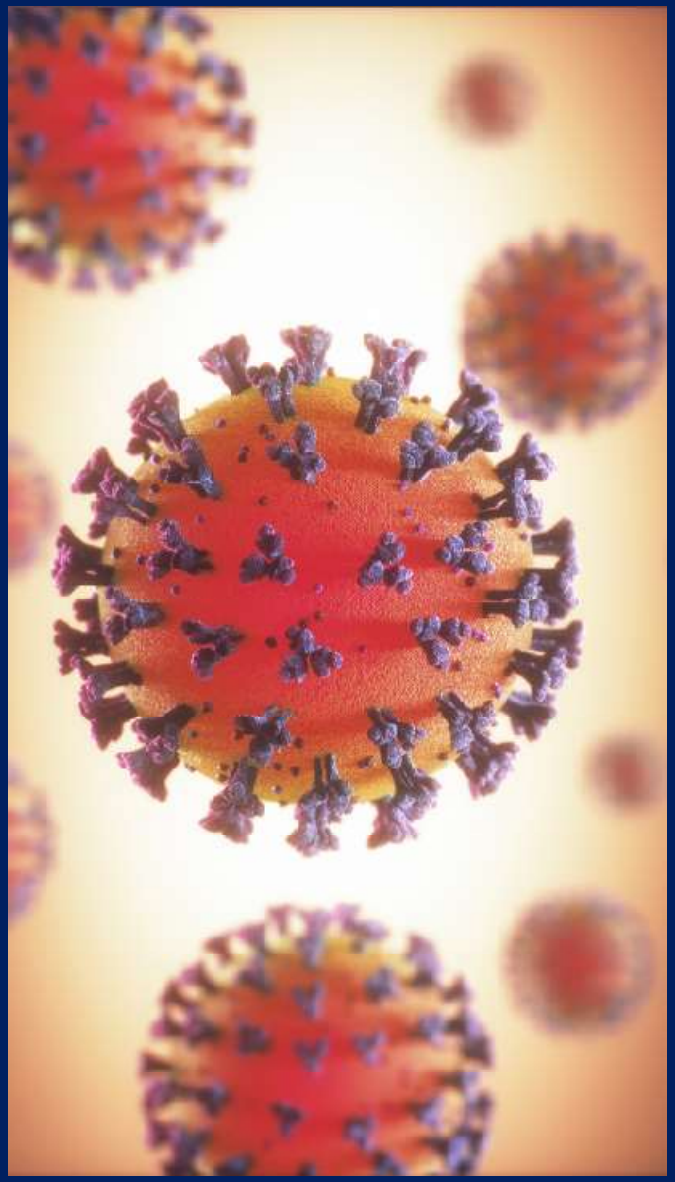
https://www.researchgate.net/publication/264127862_Zinc_Ionophore_Activity_of_Quercetin_and_Epigallocatechin-Gallate_From_Hepa_1-6_Cells_to_a_Liposome_Model



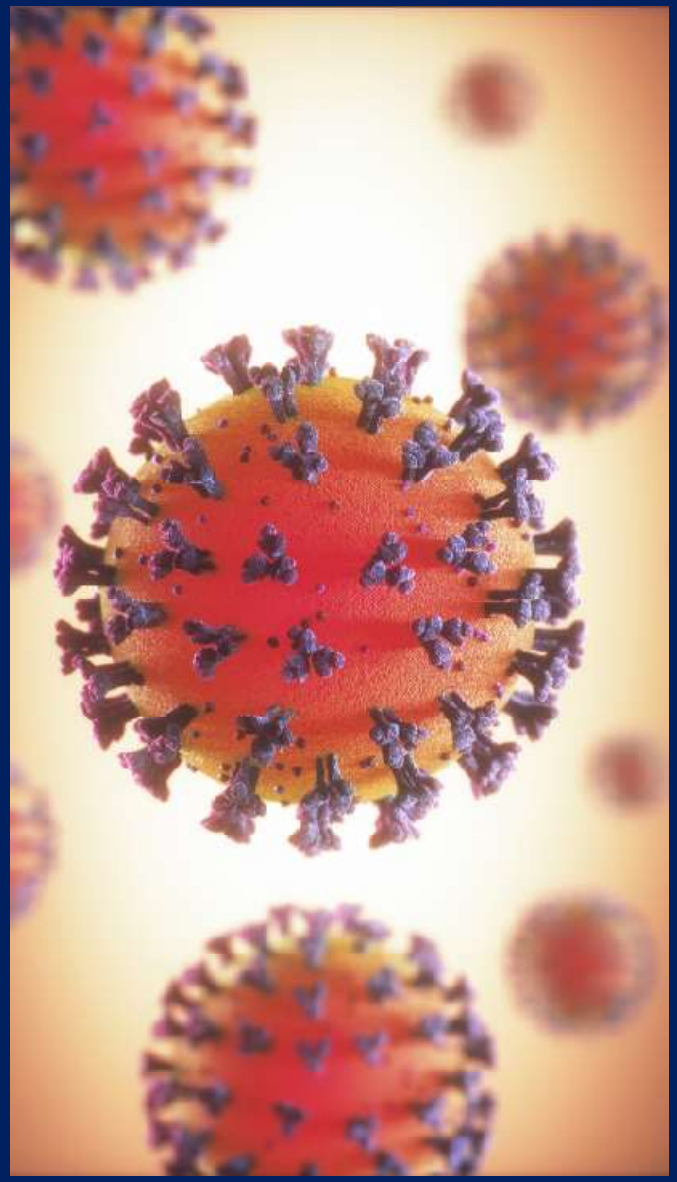
The interaction between spike proteins and the ACE2 receptor is clearly more complicated than a simple lock-and-key relationship. Many more molecules may be involved in the process allowing SARS-CoV-2 to invade cells. At the moment, we know of at least one other key player: **TMPRSS2 (transmembrane serine protease 2).** You can think of TMPRSS2 as an inside man working for the factory that the burglar wants to turn into a robot-manufacturing plant: TMPRSS2 meets the burglar outside the building to prepare or 'prime' the lock pick (spike) so it will properly fit the factory's locks. This is probably the method **Quercitin** uses to inhibit serine protease.

Biologists at the German Primate Centre in Göttingen found that COVID-19 depends on TMPRSS2 protease to invade cells and more importantly from a therapeutic perspective, showed that a protease inhibitor previously approved for clinical use, camostat mesylate, can block the virus from entering cells. In the analogy, the inhibitor is a security guard who intercepts the inside man before they prepare the burglar's lock pick.

Quercitin has the same effect



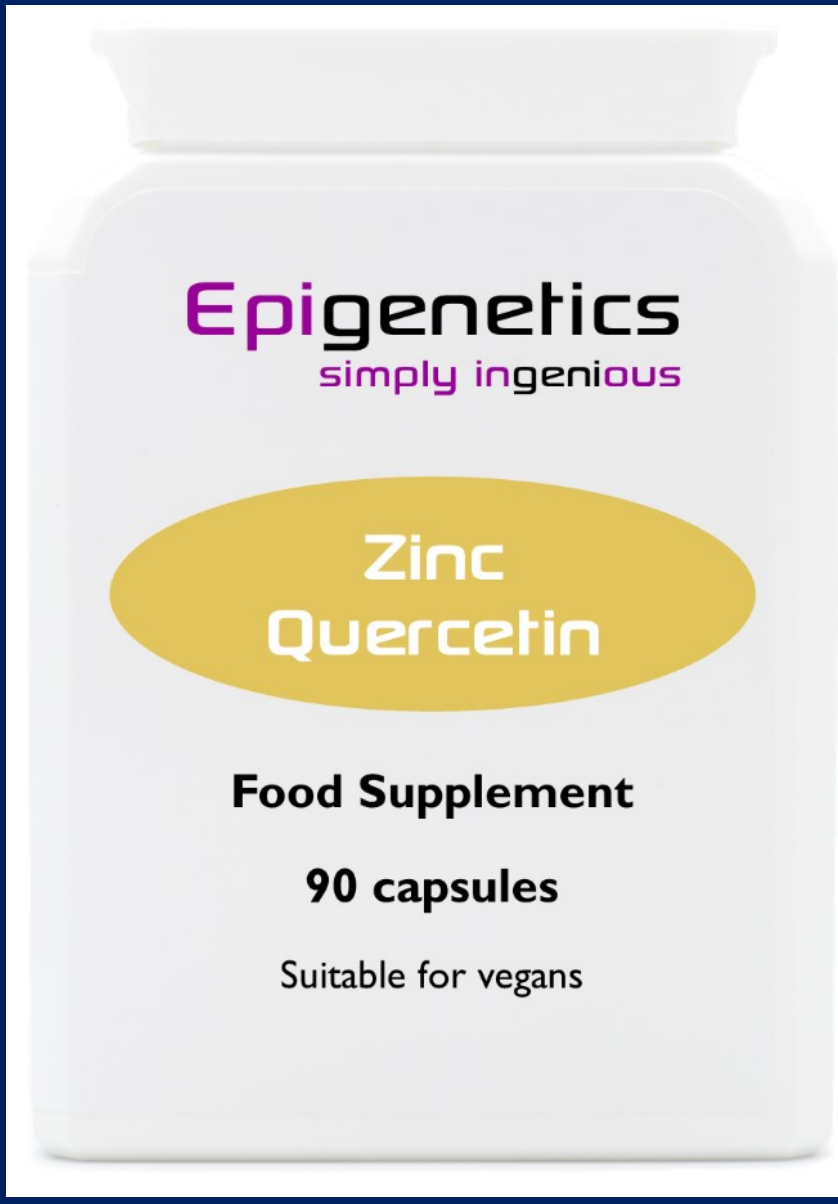
Serine proteases play a vital role
n host cell-virus fusion
ctivation by priming the virus's
Spike protein to show the
protein named "fusion protein"
TMPRSS2 activate COVID-
9 fusion).



So, what would be better than supplementing **Zinc and Quercetin** together to elevate intracellular Zinc levels in order to inhibit viral replication?

Quercitin dihydrate has been shown to be very effective clinically against many viral pathogens.*

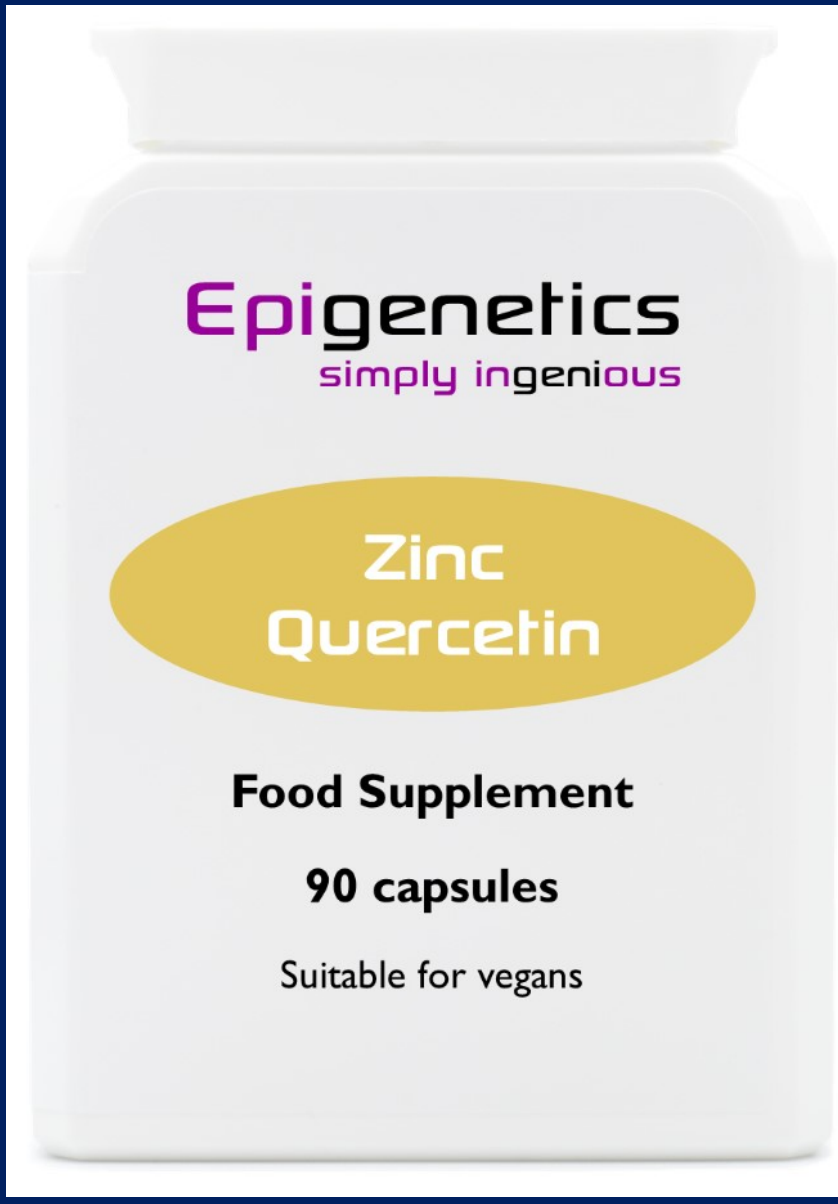
https://nutritionalpharmacology.wordpress.com/2020/03/21/combating-covid-19-th-zinc-and-quercetin/



Recommended dosages to optimise the immune system -

1-2 capsules (supplying 20-40mg Zinc and 333 - 666mg Quercitin dihydrate) to be taken first thing in the morning on an empty stomach. Do not consume anything but water for at least an hour. This is essential for quercetin to act as an ionophore.

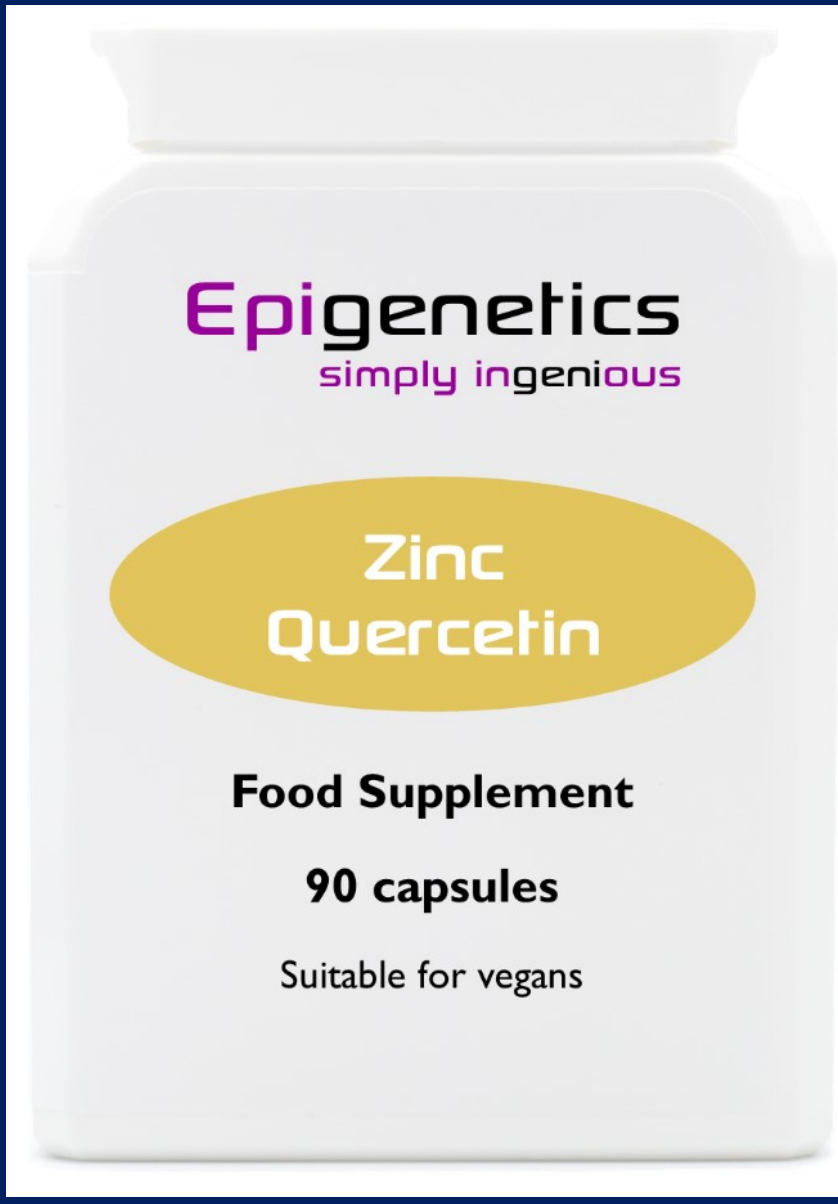
f you take the **quercetin with the zinc and food**, the quercetin will combine with other minerals and everything except the zinc.
By taking them together on an empty stomach you are ensuring the quercetin and zinc combine and are absorbed into the blood plasma.



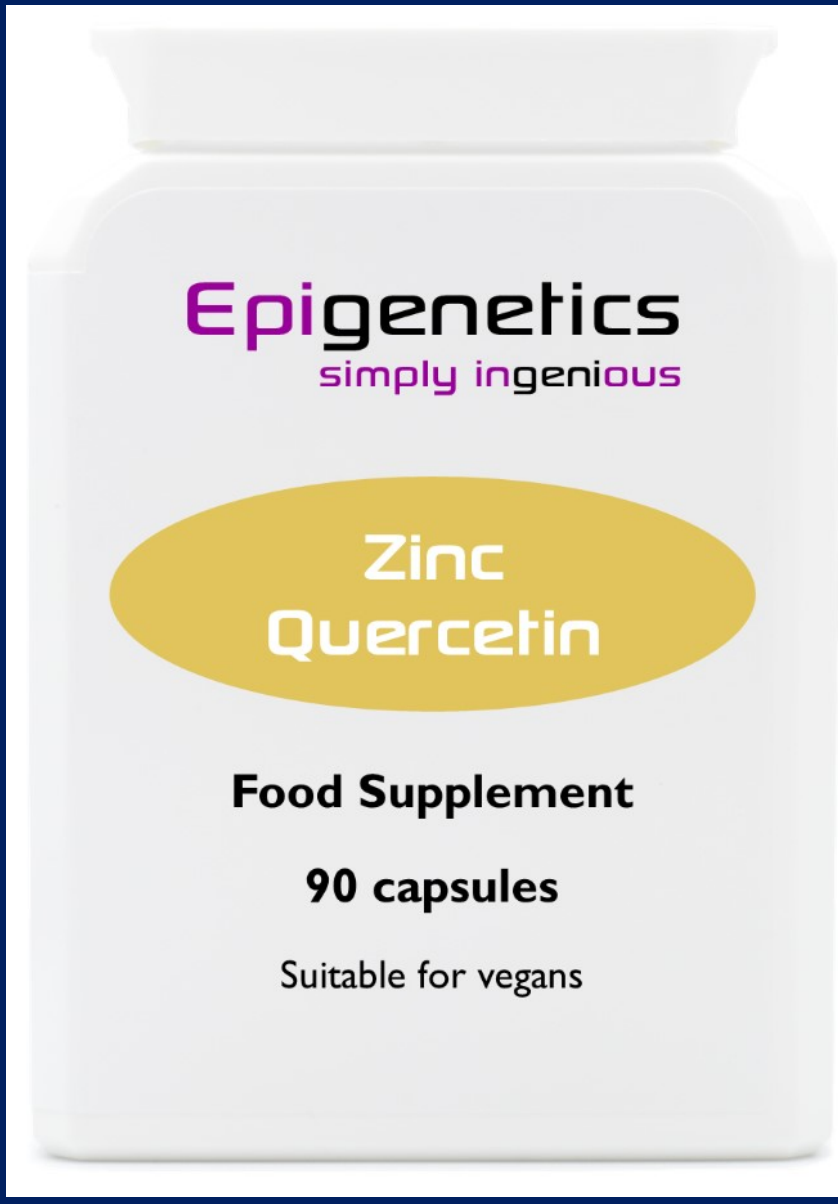
Recommended dosages during an acute viral infection

2 capsules (supplying 40mg Zinc and 666mg Quercitin dihydrate 3 times a day leaving at least 5 hours between doses to be taken on an empty stomach. Do not consume anything but water for at least an hour after each dose. Take this dose for 3-5 days only.*

https://greenstarsproject.org/2020/03/27/quercetin-a-treatment-for-coronavirus/



Quercetin has an
nticoagulant power which
nust be taken into account
n particular for people who
re already under such a
reatment because an
nteraction between
nticoagulant drugs and
uercetin is possible.



Epigenetics

simply ingenious

Zinc Quercetin

Food Supplement

90 capsules

Suitable for vegans

DIRECTIONS:
Recommended daily dose, 1 serving taken with breakfast.

WARNING:
Do not take this product if on anticoagulant medication
If pregnant or breast feeding, consult your healthcare practitioner before using this product. This product should not be used as a substitute for a varied diet. Do not exceed the recommended daily dose unless prescribed by your practitioner.

STORAGE:
Store in a cool dry place out of reach and sight of children.
Once opened, consume within 9 months.

MANUFACTURED BY:
Epigenetics Ltd, Unit 18, Manningford Centre,
Manningford Bohune, Pewsey, SN9 6NL, UK.
01380 800105
sales@epigenetics-international.com
www.epigenetics-international.com

INGREDIENT FACTS

Serving size: 1 capsule
Servings per container: 90

Amount per serving		*RI*
Quercetin	333 mg	†
Zinc (from Zinc ascorbate & Zinc sulphate)	20 mg	200%*

† Percent Daily Reference Intakes (RI) not established.

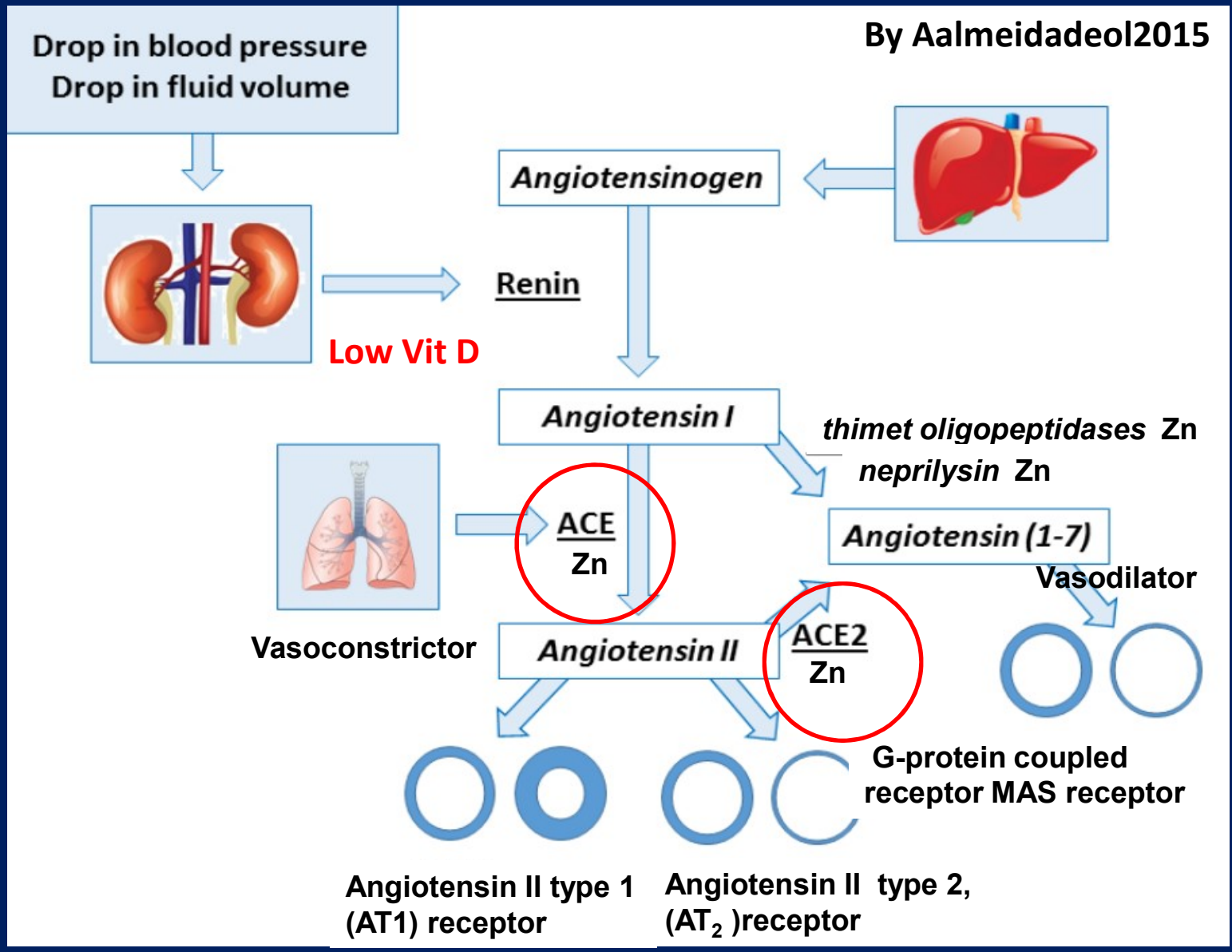
INGREDIENTS:
Quercetin dihydrate extract (*Sophora japonica*), Zinc ascorbate, Zinc sulphate, Vegetable capsule (Hydroxypropyl methylcellulose).

Remove Cap

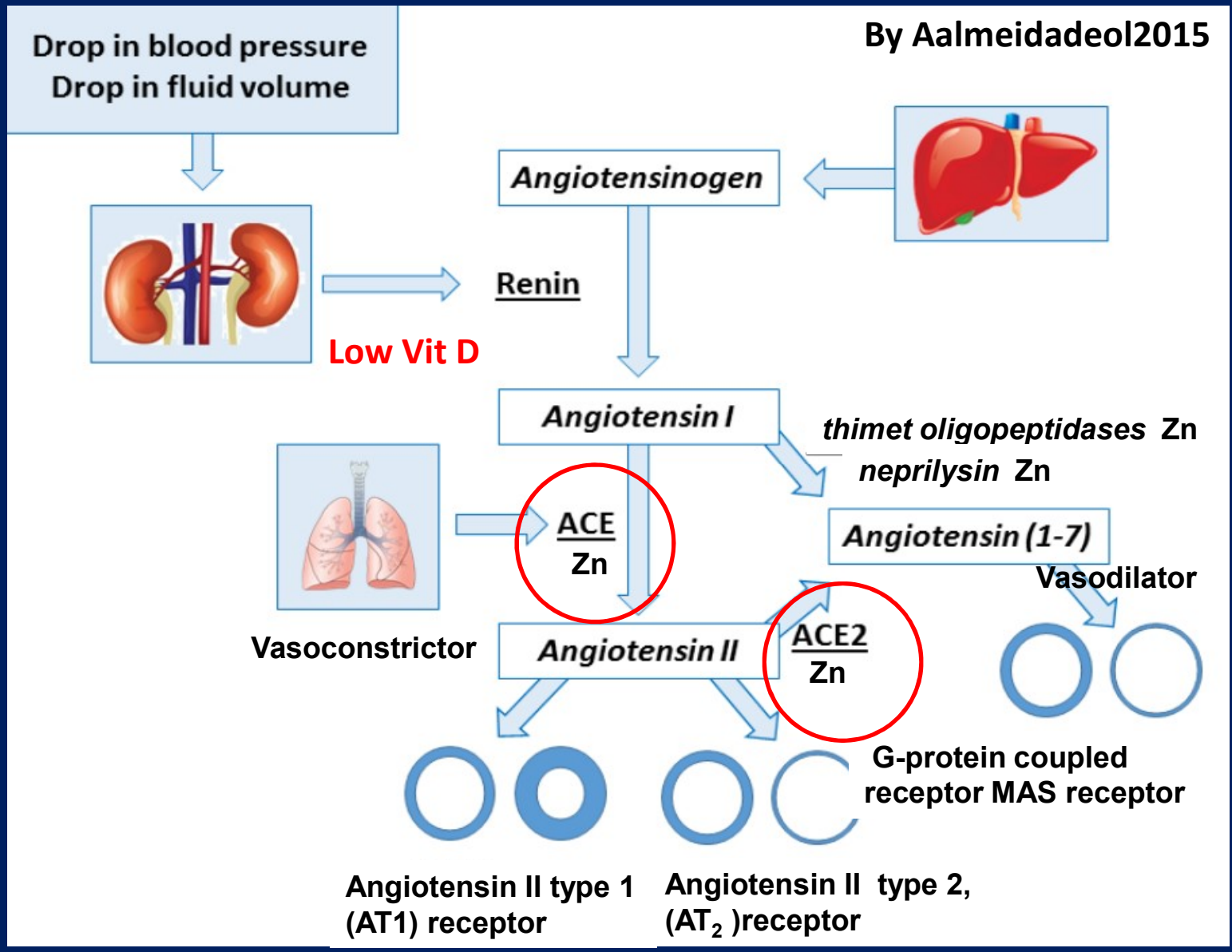
2 HDPE

The Immune Function
Role of Vitamin D

Vitamin D acts as an endocrine repressor of the renin-angiotensin system by down regulating the expression of renin, the rate-limiting enzyme of the renin-angiotensin cascade, and rescuing lung function.



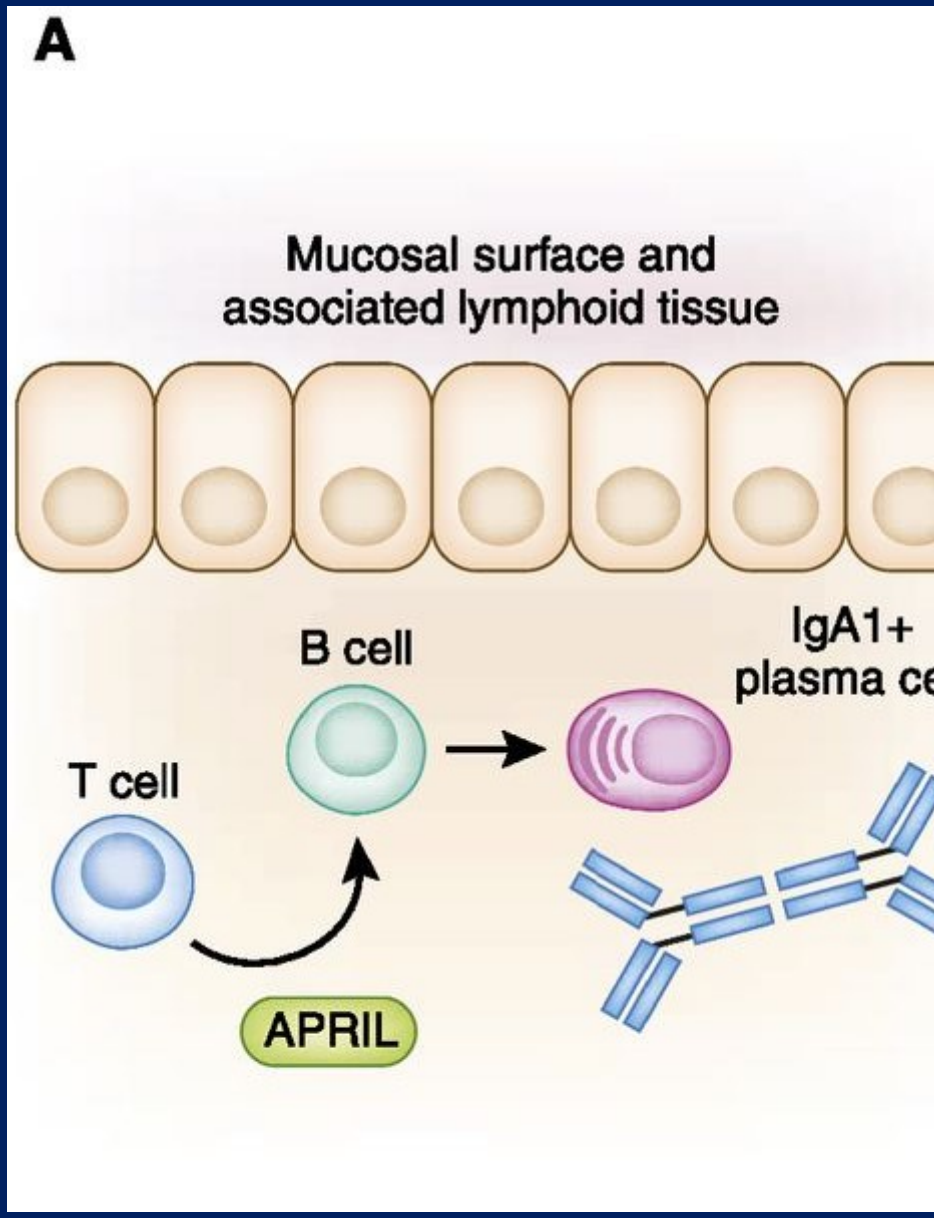
A preclinical model of acute lung injury showed that administration of vitamin D provided protection against lung injury by increasing ACE2 levels and decreasing renin production.



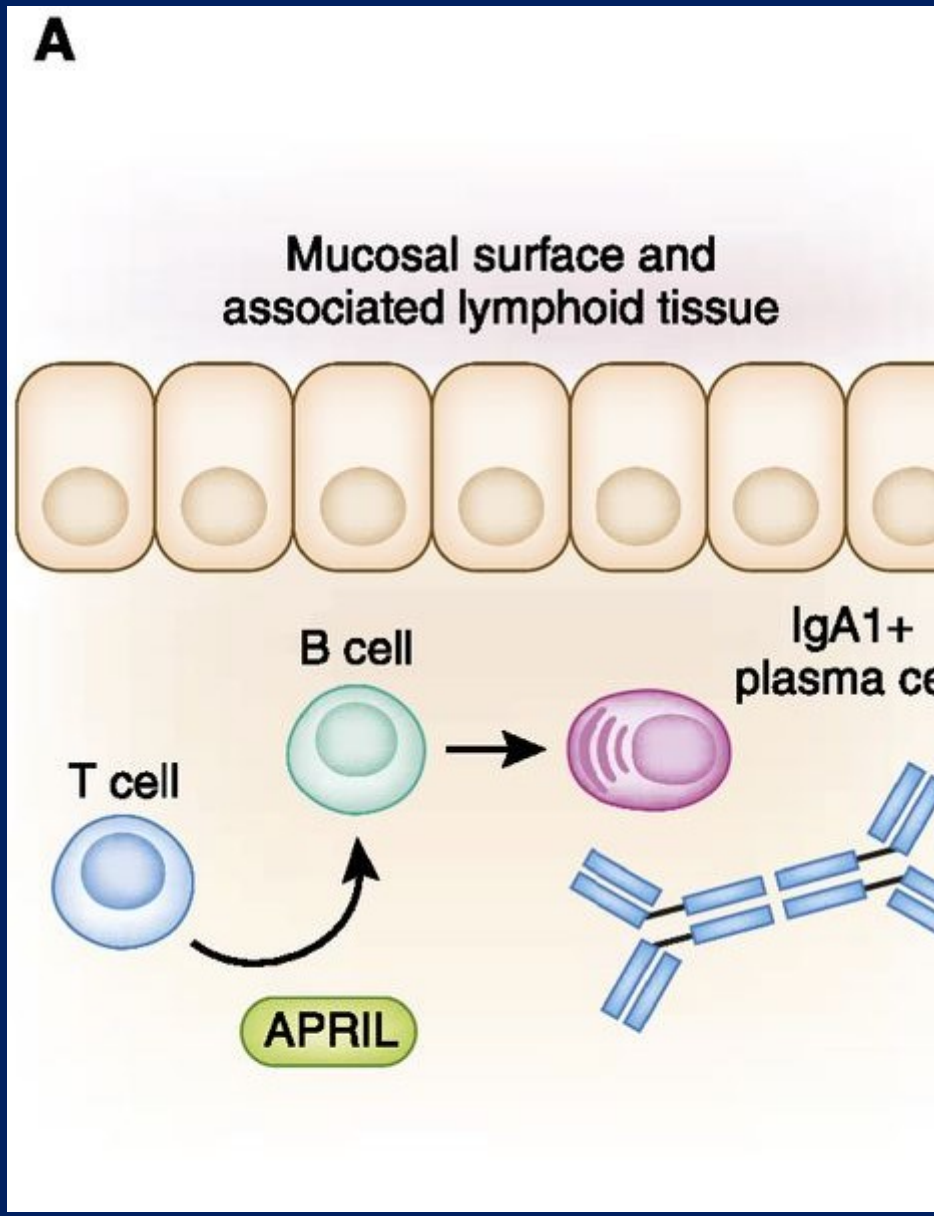
Vitamin D supplementation increased ACE2 receptor levels, but only in conditions of acute lung injury where ACE2 levels decreased. When vitamin D was given to control animals, it didn't increase ACE2 levels. This means that vitamin D normalizes ACE2 levels in situations only where it is decreased.

According to latest Russian research given to me by my good friend **Dr. Tatiana Chernysheva** from Vladivostock GM Soy was shown to block vitamin D receptors and it also increases the body's need in the vitamin D3. Thus there is Vitamin D deficiency and so it cannot work against the COVID-19.

She goes on to say I also pay attention to IgA. Assessing the health status of patients have been diagnosed with COVID-19 and suffered from severe and very severe symptoms or developed atypical pneumonia, but have won through to recovery, I found out that the patients showed insufficient IgA levels in tests as well as nosode diagnosis.



Besides it was noticed that doctors who showed normal and good IgA levels in the blood tests while treating the COVID-19 patients didn't catch this virus from them. It is important to keep normal IgA levels for COVID-19 carriers and COVID-19 contact persons and COVID-19 patients with mild and moderate symptoms.



Chlorella is a very specific
ype of algae.
Laboratory science shows
ime and again, chlorella
oosts **"IgA secretion"** in the
mouth and mucous
membranes. This is CRUCIAL
o build our cells ability to
ight off pathogens that infect
us by contacting our nose,
eyes, and mouth.

Epigenetics
simply ingenious

Organic Chlorella

Food Supplement

60 Capsules

Suitable for vegans

SOIL ASSOCIATION ORGANIC

DIRECTIONS:
Recommended daily dose, 1 serving taken with a meal.

WARNING:
If pregnant or breast feeding, consult your healthcare practitioner before using this product. This product should not be used as a substitute for a varied diet. Do not exceed the recommended daily dose unless prescribed by your practitioner.

STORAGE:
Store in a cool dry place out of reach and sight of children.
Once opened, consume within 6 months.

MANUFACTURED BY:
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Manningford Bohune, Pewsey, SN9 6NL, UK.
01380 800105
sales@epigenetics-international.com
www.epigenetics-international.com

INGREDIENT FACTS

Serving size: 1 capsule
Servings per container: 60

Amount per serving		*RI*
Organic chlorella	430 mg	†

† Percent Daily Reference Intakes (RI) not established.

INGREDIENTS:
Organic chlorella (*Chlorella vulgaris*),
Vegetable capsule
(Hydroxypropyl methylcellulose).

GB-ORG-05
non-EU agriculture

Remove Cap
2
HDPE

Vitamin D
and the
Immune System

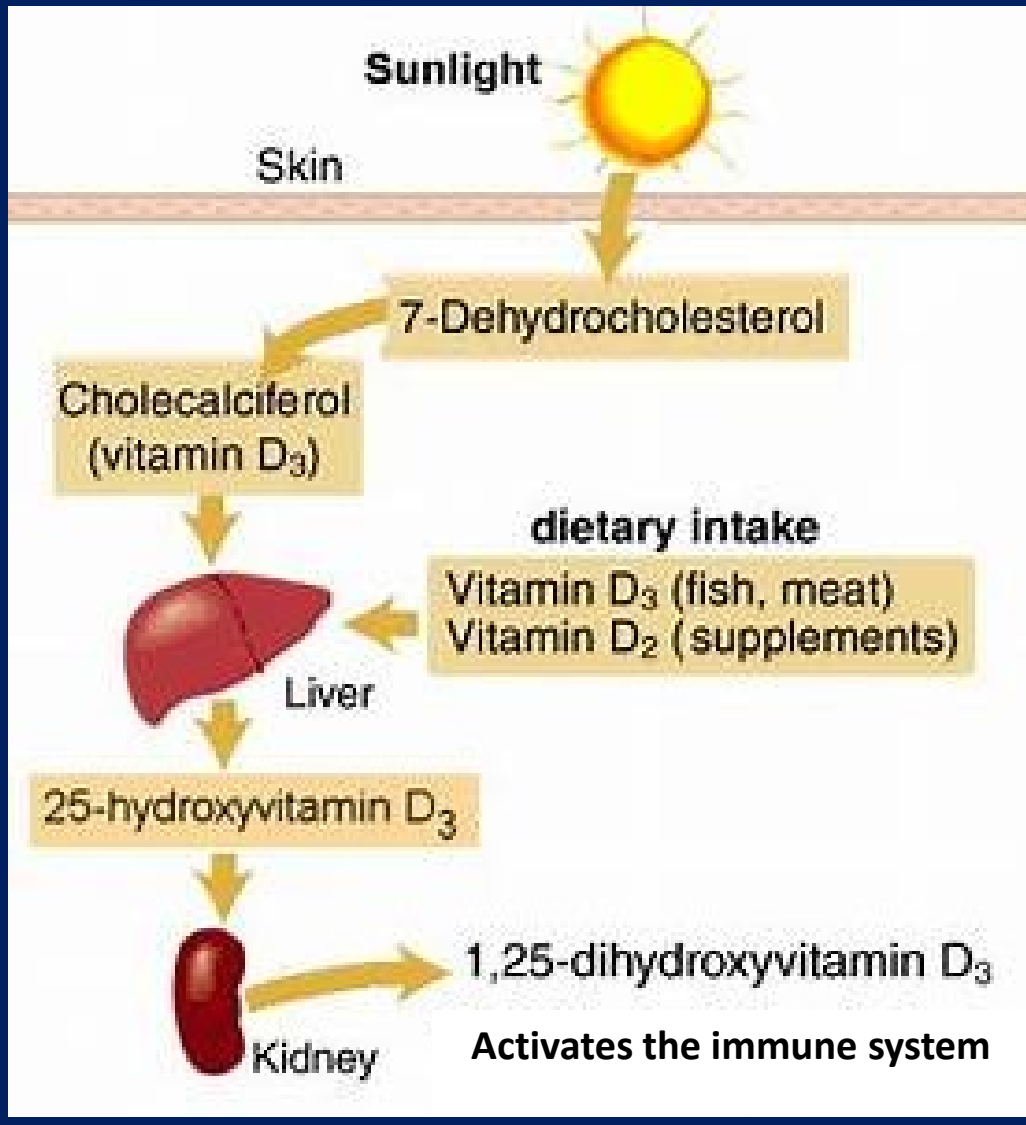
Supplemental vitamin D would be a viable means to increase vitamin D to sufficient levels and potentially reduce the risk of complications associated with COVID-19.

Can be ingested or rubbed onto the skin

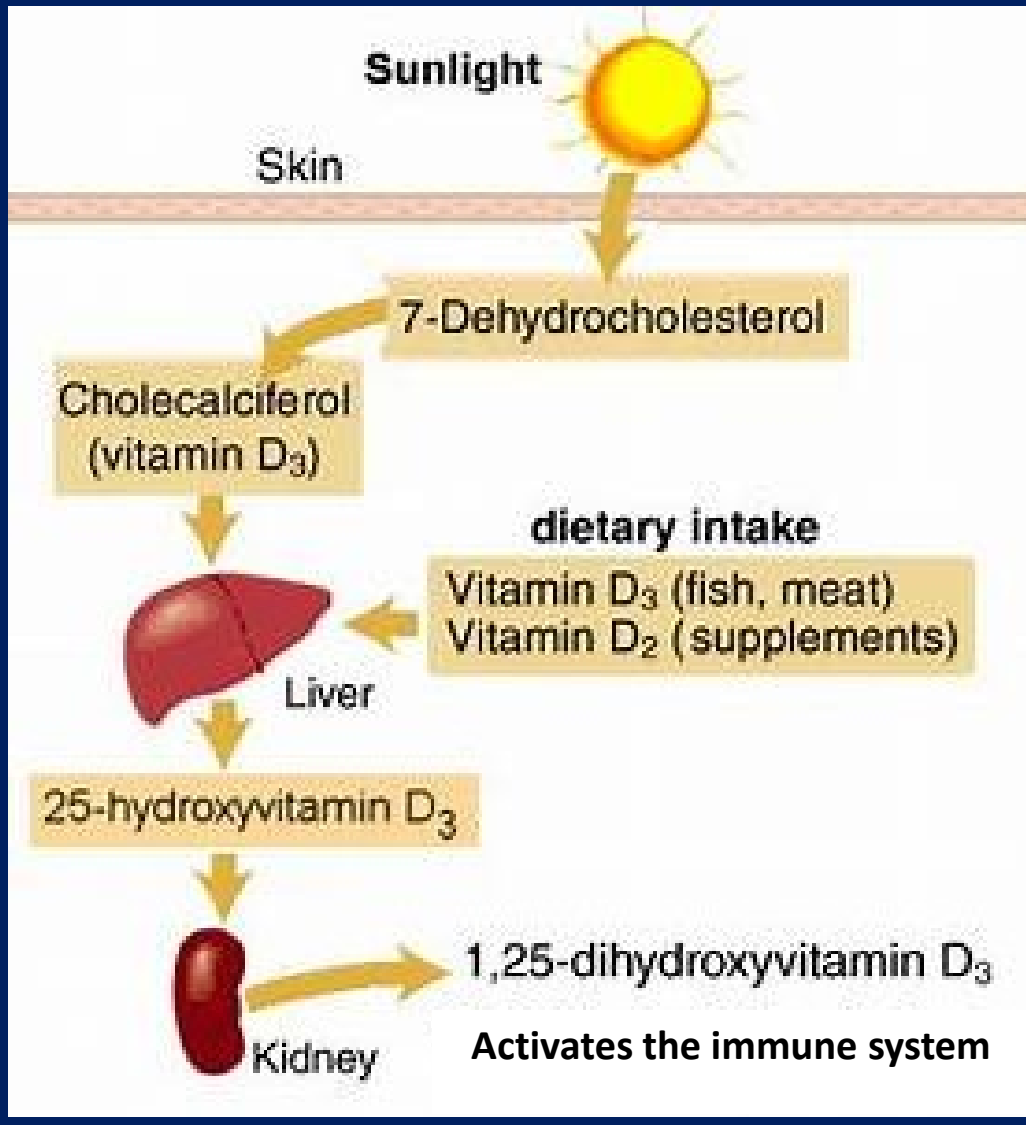
1 drop = 1000IU

First observed that all pneumonia cases have **Vitamin D deficiency.**

It was then realised that Vitamin D is important for the correct function of the immune system.

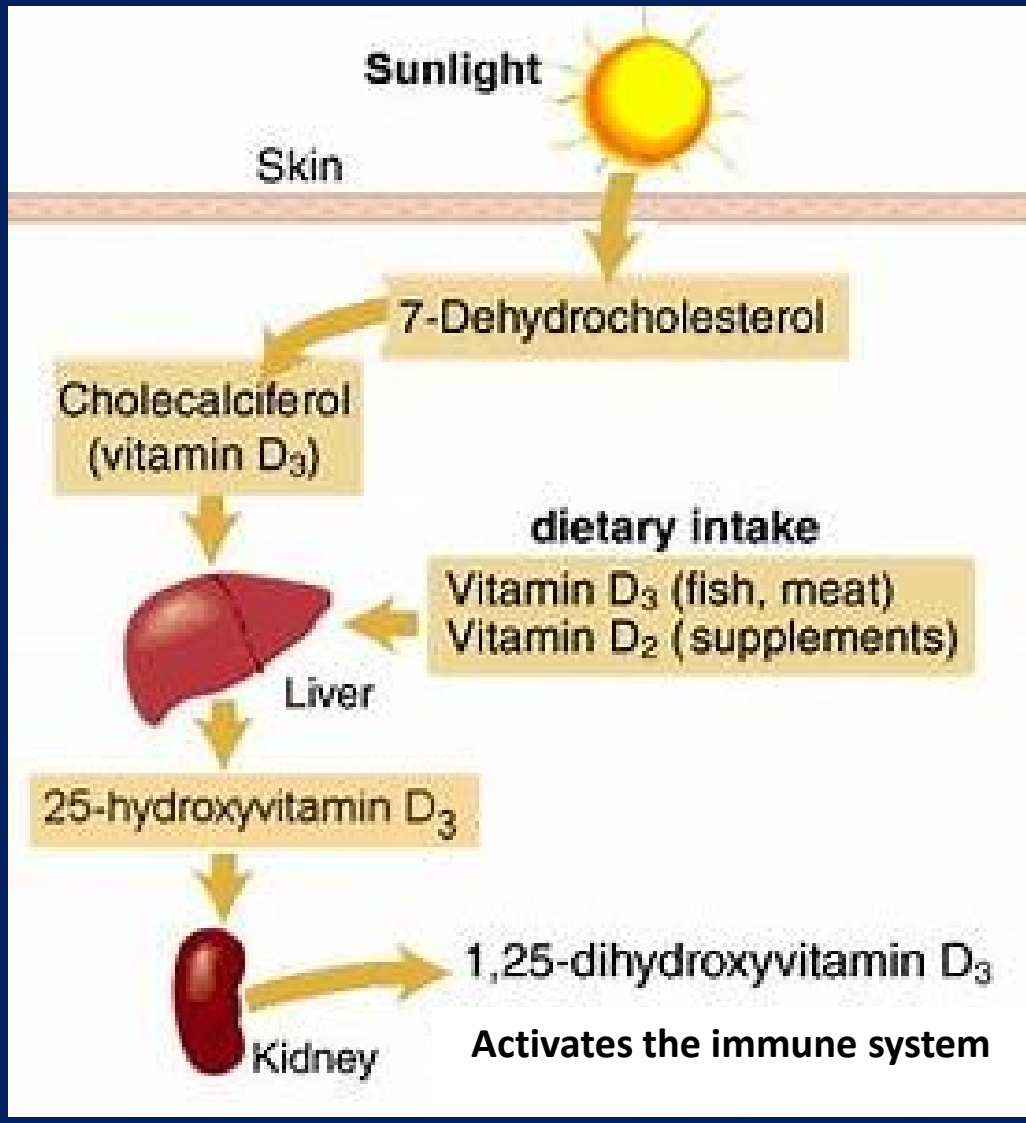


Vitamin D from the diet or from sunshine conversion of cholesterol is first hydroxylated in the liver for storage to become 25OH Vit D3.



And then converts to 1, 25 (OH)2 Vitamin D in the kidney. This is one of the activated forms.

This activation can also occur in many other tissues including the white blood cells.



The immune system is divided between the

nnate immune system

mediated by the phagocytes.

First line of defence but no antibodies formed.

Adaptive immune system

mediated by the B and T ymphocytes and produces antibodies but may take 7-10day to kick in.

Classification of White Blood Cells

Non-specific innate immune system (Phagocytes*)

Granulocytes:	70%	Neutrophils*	65%	(HOCl) NA
		Eosinophils	4%	(H2O2) GABA, Glycine, Taurine
		Basophils (Mast cells)	1%	(Histamine) Histamine
Agranulocytes	30%	Monocytes* (Macrophages)		(NO*) Dopamine
		Natural Killer Cells	15%	Excitatory

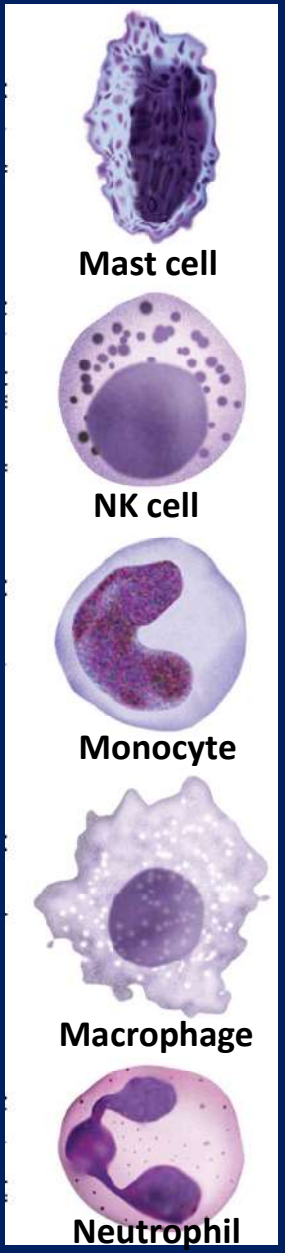
Adaptive Specific

Lymphocytes	25%	B-Lymphocytes	S
		T-Lymphocytes:	ACh
		Helper T-Cells	
		Memory T-Cells	
		Killer T-Cells	
		Suppresser T-Cells	

The Innate Immune System

Cells like the macrophages attack to the virus.

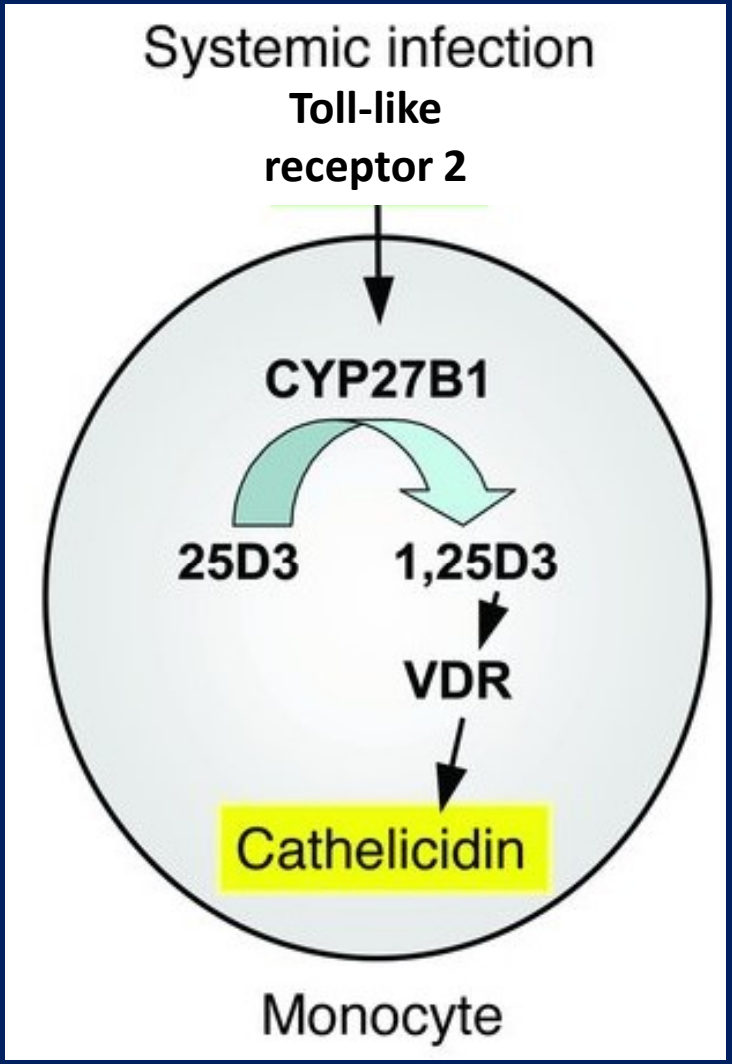
25(OH) Vit D3 enters the macrophage and is converted to 1.25(OH)2 Vit D3. This then attaches to the cell nucleus and stimulates the release of antimicrobial chemicals -



1. Cathelicidin

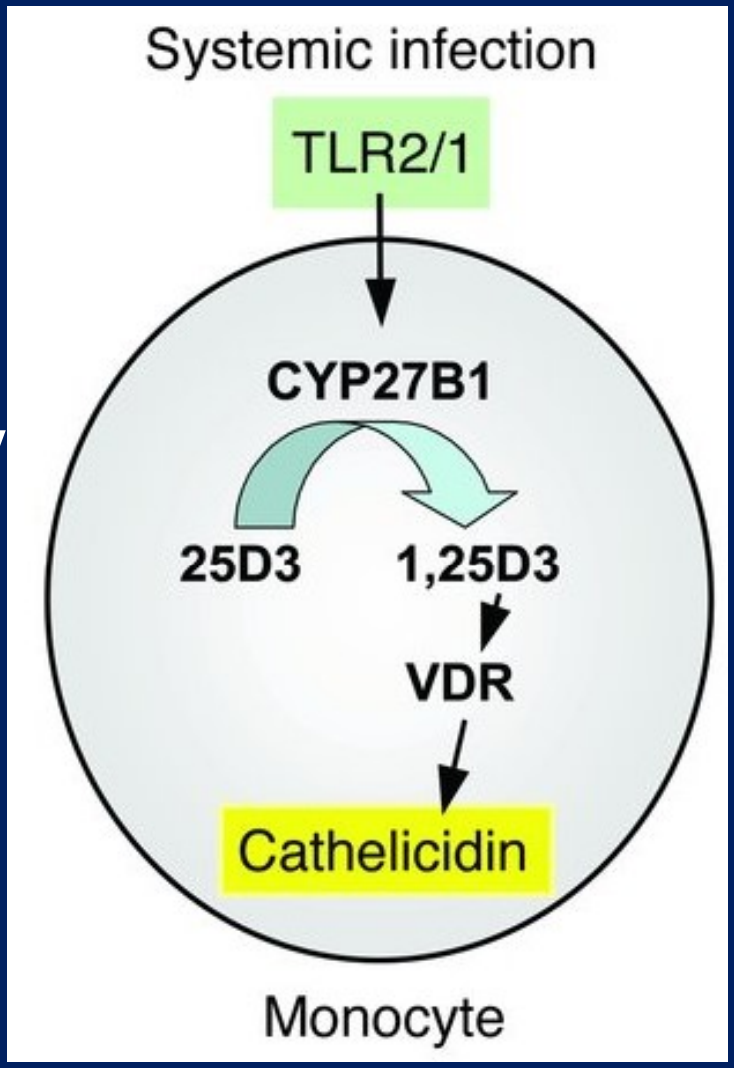
2 Beta Defensins which are activated by

3 NF-κB which requires Vit D3



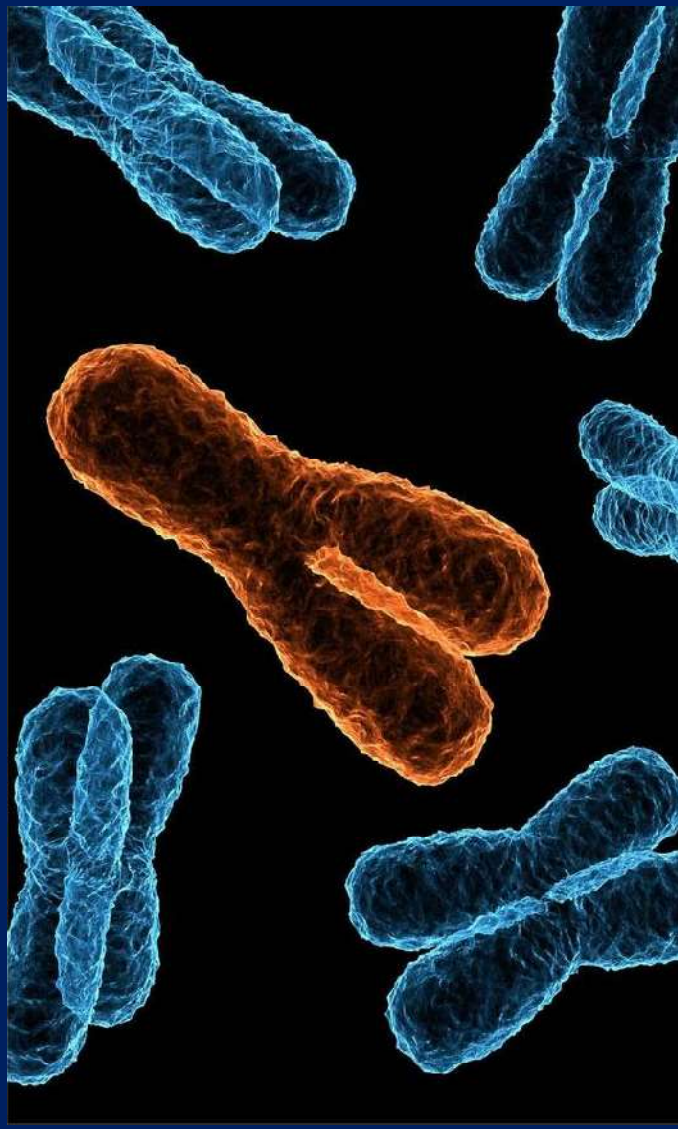
Cathelicidin

1. Cause chemotaxis thus increasing the immune response.
2. Increases macrophage activity to enhance phagocytosis.
3. Increases vascular permeability
4. Increases T cell and B cell proliferation and their activation.



Beta Defensins

1. Can enter the virus cell membrane through its envelope disintegrating the membrane.
2. Can create holes in the virus membrane and the defensins can then enter into the virus and destroy it.
3. Create metabolic disruption to the virus.

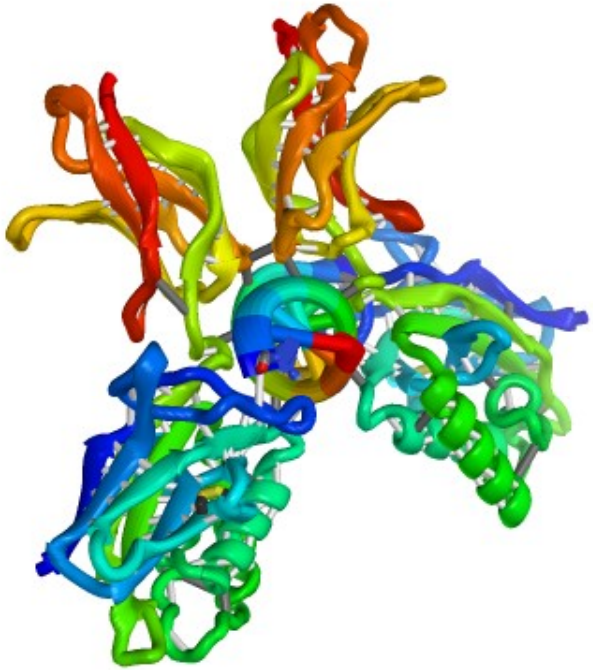


NF-κB

NF-κB plays a key role in regulating the immune response to infection. NF-κB is a major transcription factor that regulates genes responsible for both the innate and adaptive immune response.*

Smith EM, Gregg M, Hashemi F, Schott L, Hughes TK (2006-07-01). "Corticotropin Releasing Factor (CRF) activation of NF-κB-directed transcription in eukocytes". *Cellular and Molecular Neurobiology*. 26 (4–6): 1021–36.

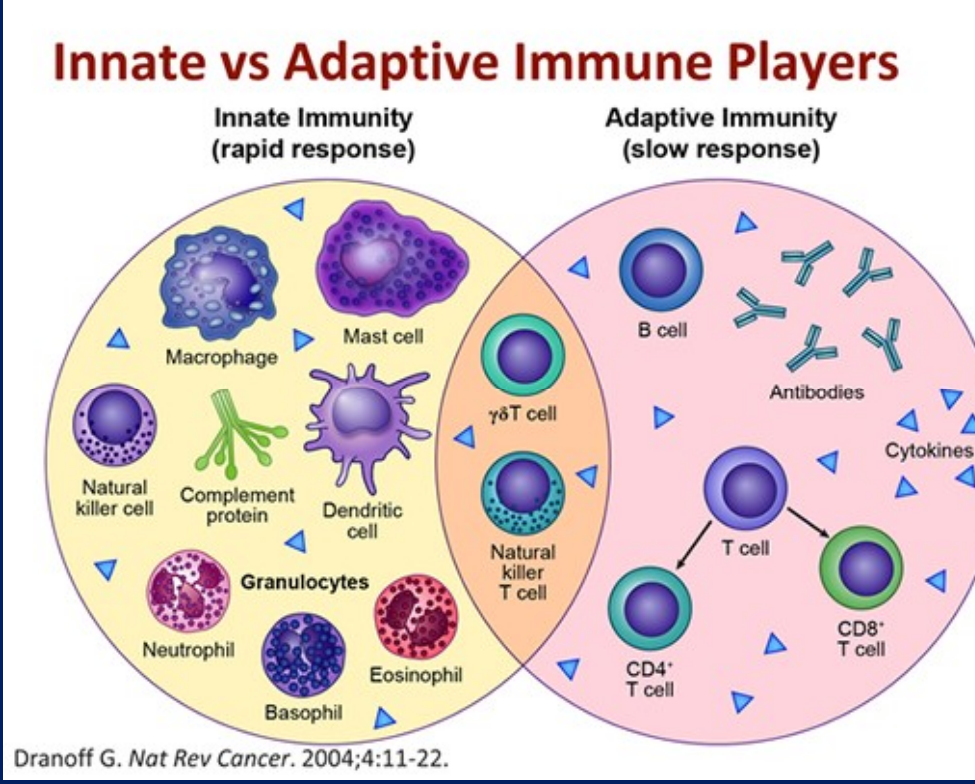
Upon activation of either the T-or B-cell receptor, NF-κB becomes activated through distinct signalling components.



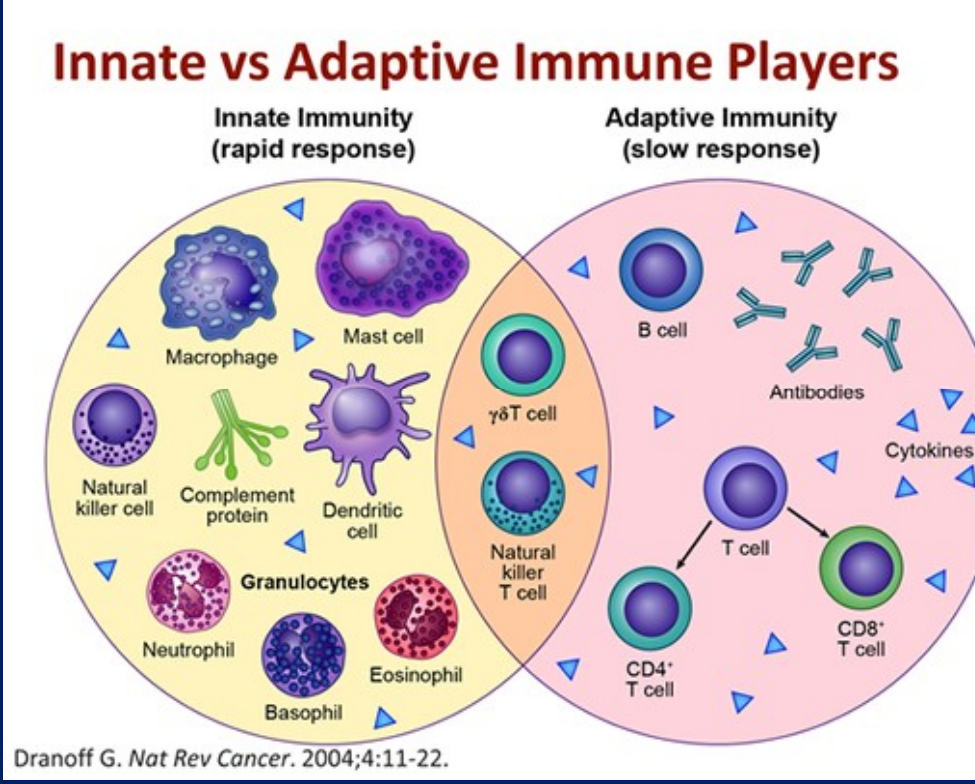
The Adaptive Immune System

Should the Innate immune system not fully eradicate the virus the adaptive immune system is activated.

It takes **5-7 days** after encountering a new antigen for the adaptive immune system to reach full activity.



his leads to the activation
f TH1 and TH2 immune
ells.
H1 cells further stimulate
he innate immune system
y releasing Interferon
amma.
H2 cells stimulate the
elease of antibodies via the
cells stimulated by IL4
nd IL5.



hen Vitamin
3 is present
s 1.25(OH)2
t D3 it
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H2 cells to
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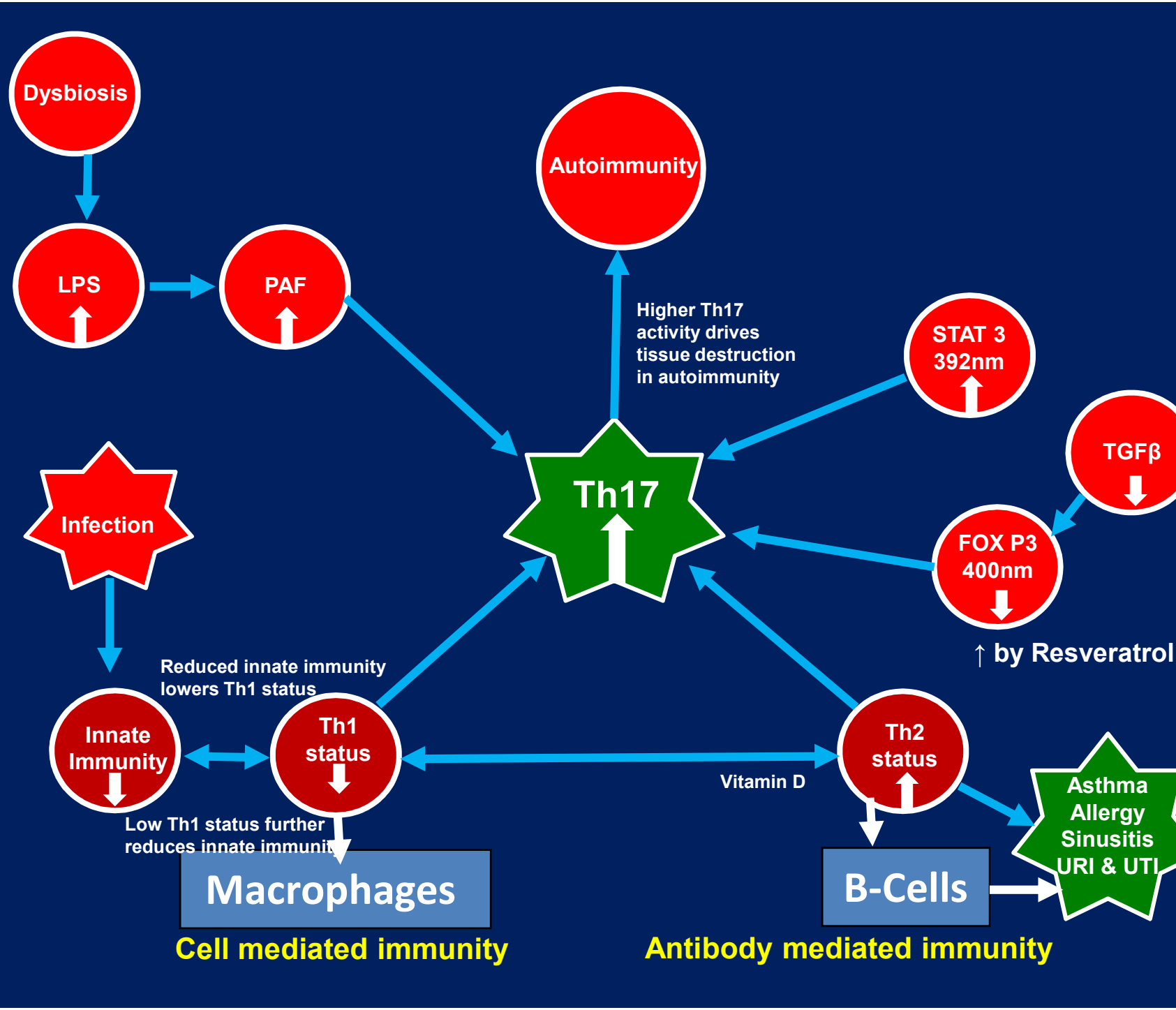
ntibodies.



Vitamin K2 and the Immune System

Complex signalling and communication mechanisms at the cellular/molecular level are at the heart of the immune response.

Vitamin K2 is a critical component that is required for both the activation and regulation of much of the cellular machinery responsible for initiating and executing our immune response.

Vitamin K2 can act as a cofactor for some plasma proteins, thereby affecting immune and inflammatory responses particularly mediated by T cells. Studies have found links between vitamin K2 levels and diseases, including inflammatory diseases and cancer.*

*Vitamin K and the Immune System. Nazli Namazi, Bagher Larijani, Leila Azadbakht.ChapterFirst Online: 31 July 2019

Nuclear Factor kappa B (NF-κB) and Vitamin K

There is evidence that vitamin K can regulate the activation of the NF-κB pathway.

Other cell and animal experiments have looked at the possible regulation of inflammation by vitamin K inhibition of IL-6 release following endotoxin challenge.

These researchers also found that Menadione (Vitamin K3) was capable of suppressing LPS-induced NF-κB nuclear translocation and TNF-α release from murine macrophage-like cells .

Additionally, in a murine model of acute lung injury/acute respiratory distress syndrome (ARDS), which occurs in the setting of acute severe illness complicated by systemic inflammation, **Menadione (VitK3)** also attenuated the LPS-induced severity of lung injury and suppressed the increase in serum TNF-α level.

This occurred concomitantly with inhibition the LPS-evoked nuclear translocation of NF-κB in lung tissue.*

*Anti-Inflammatory Actions of Vitamin K
By Stephen J. Hodges, Andrew A. Pitsillides, Lars M. Ytrebø and Robin Soper

Now dispersed in Organic Black cumin seed oil

10 drops = 100mcg

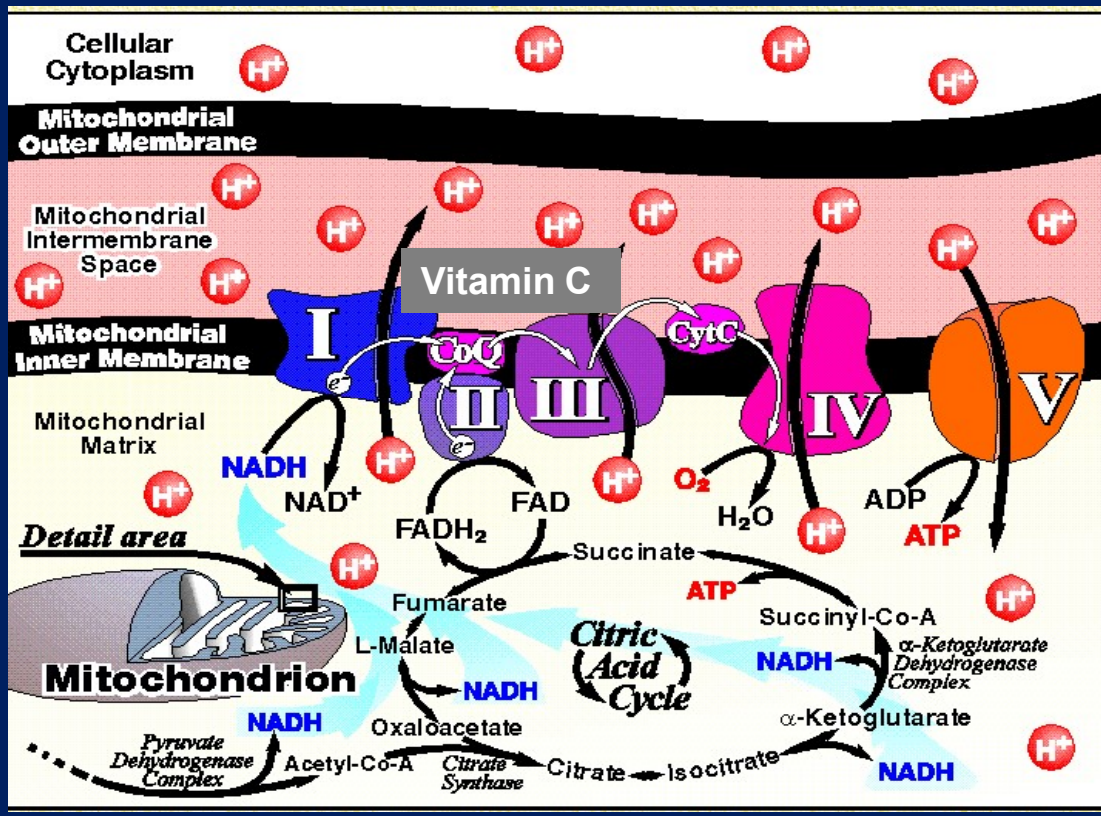
Vitamin C and the Immune system

Vitamin C (Ascorbic acid)

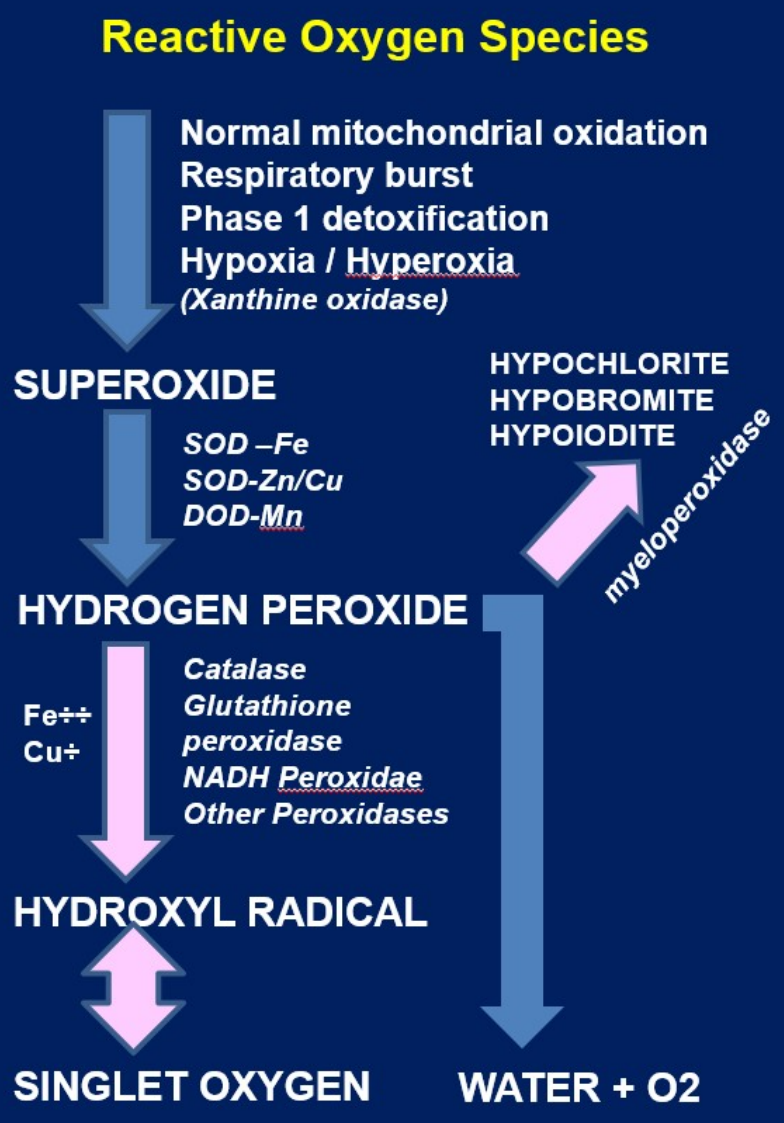
s a water soluble vitamin which when deficient historically caused the symptoms of scurvy which allowed the people to develop more infections especially pneumonia, skin rashes, receding gums and oss of teeth.

Vitamin C has 3 functions in the body –

1. To protect the mitochondria in the cells from Reactive Oxygen Species (ROS) produced by the electron transport between Complexes 1-3.

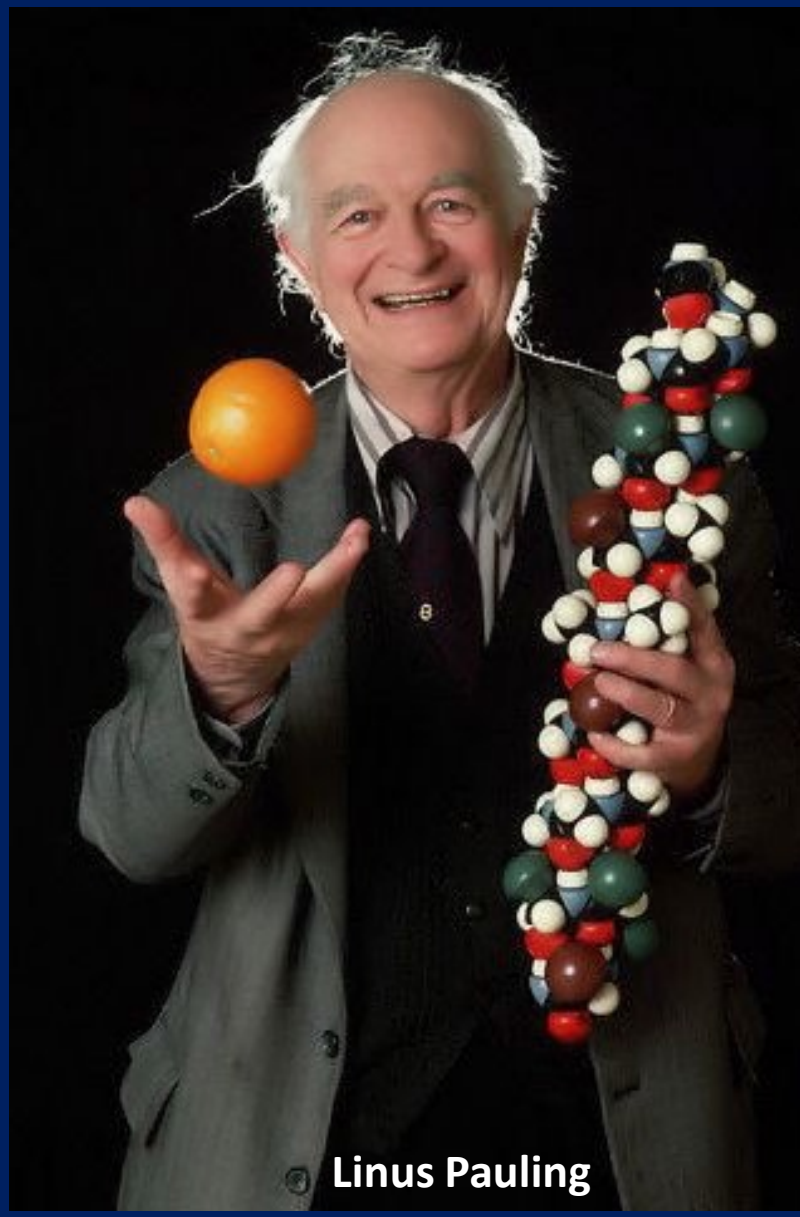


2. To protect the phagocytic nnate immune cells from the ROS they produce when they engulf bacteria and viruses. These would be the neutrophils, eosinophils and macrophages. The most potent of the ROS produced by these cells is H2O2 which Vitamin C quenches.



3. Vitamin C is essential in the hydroxylation first pathway in the synthesis of collagen.

Low collagen production leads to poor wound healing, bone abnormalities, fragility of tissues, bleeding gums and burst blood vessels.*



Magiorkinis E, Beloukas A, Diamantis A (April 2011). "Scurvy: past, present and future". *The European Journal of Internal Medicine*. 22 (2): 147–52

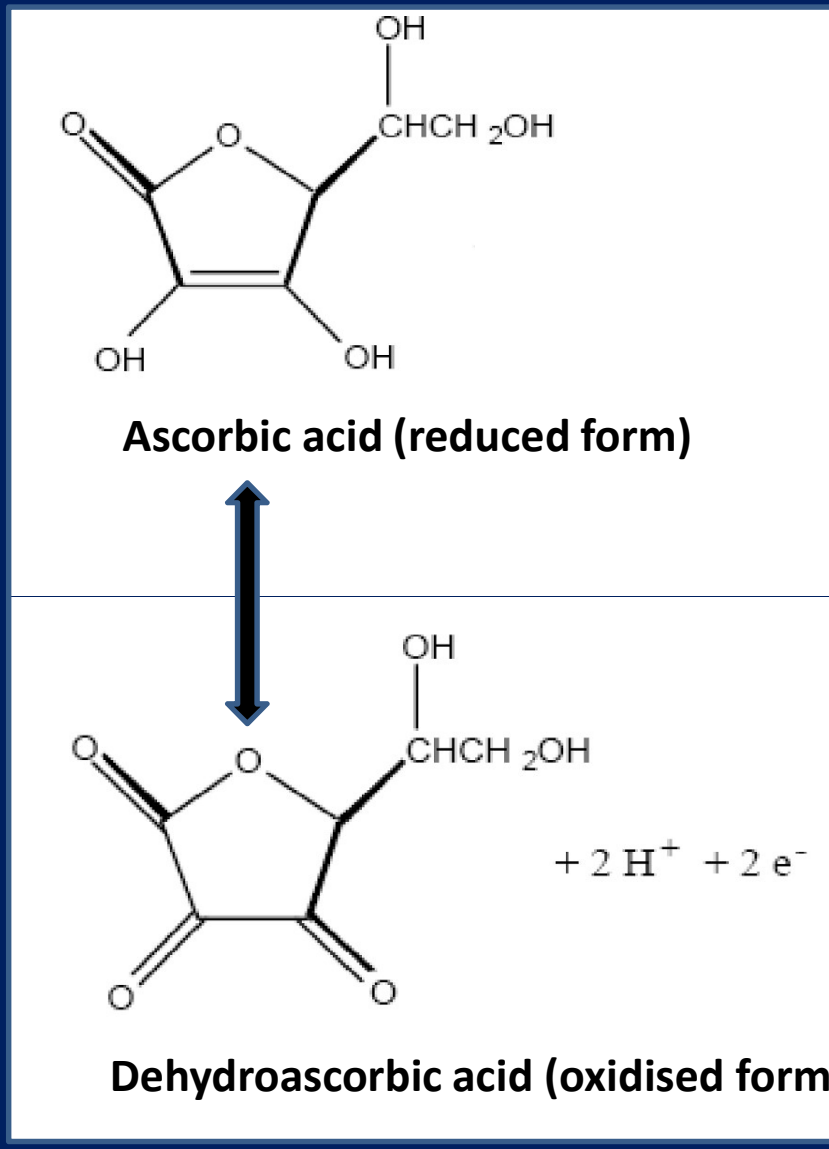
Vitamin C and its role in the Immune System

Vitamin C

Neutralizes Reactive oxygen species

Immune regulator

Cell membrane stabilizer



itamin C distributes readily in
igh concentrations
nto immune cells,
as antimicrobial and natural
iller cell activities,
romotes lymphocyte prolifera
on, and is consumed quickly
uring infections, effects
ndicating a prominent role in
mmune system regulation.*

ntergerst ES, Maggini S, Hornig DH (2006). "Immune-enhancing role of
min C and zinc and effect on clinical conditions" (PDF). *Annals of
rition & Metabolism*. 50 (2): 85–94

Currently there are no long-term studies available until September from China about the effect of Vitamin C on Covid19.*

'Vitamin C Infusion for the Treatment of Severe 2019-nCoV Infected Pneumonia' Zhi Yong Peng, Zhongnan Hospital US National Library of Medicine Clinical rials.gov4 'Vitamin C Infusion for the Treatment of Severe 2019-nCoV Infected Pneumonia' Zhi Yong Peng, Zhongnan Hospital US National Library of Medicine Clinical trials.gov

However there are plenty of studies about the use of supplemental **Vitamin C** in treating influenza virus and other infections.*

Can Vitamin C Protect You from COVID-19? SaVanna Shoemaker, MS, RDN, LD on April 2, 2020

People who do **excessive amounts of exercise** are more prone to influenza, the common cold and other infections probably due to the increase in the amounts of ROS produced in the energy pathway. Mega doses of Vitamin C have been shown to prevent these occurring.*

*Nutrition and Athlete Immune Health: New Perspectives on an Old Paradigm.
Walsh NP.
Sports Med. 2019 Dec;49(Suppl 2):153-168.

Sebastion Coe Steve Ovett

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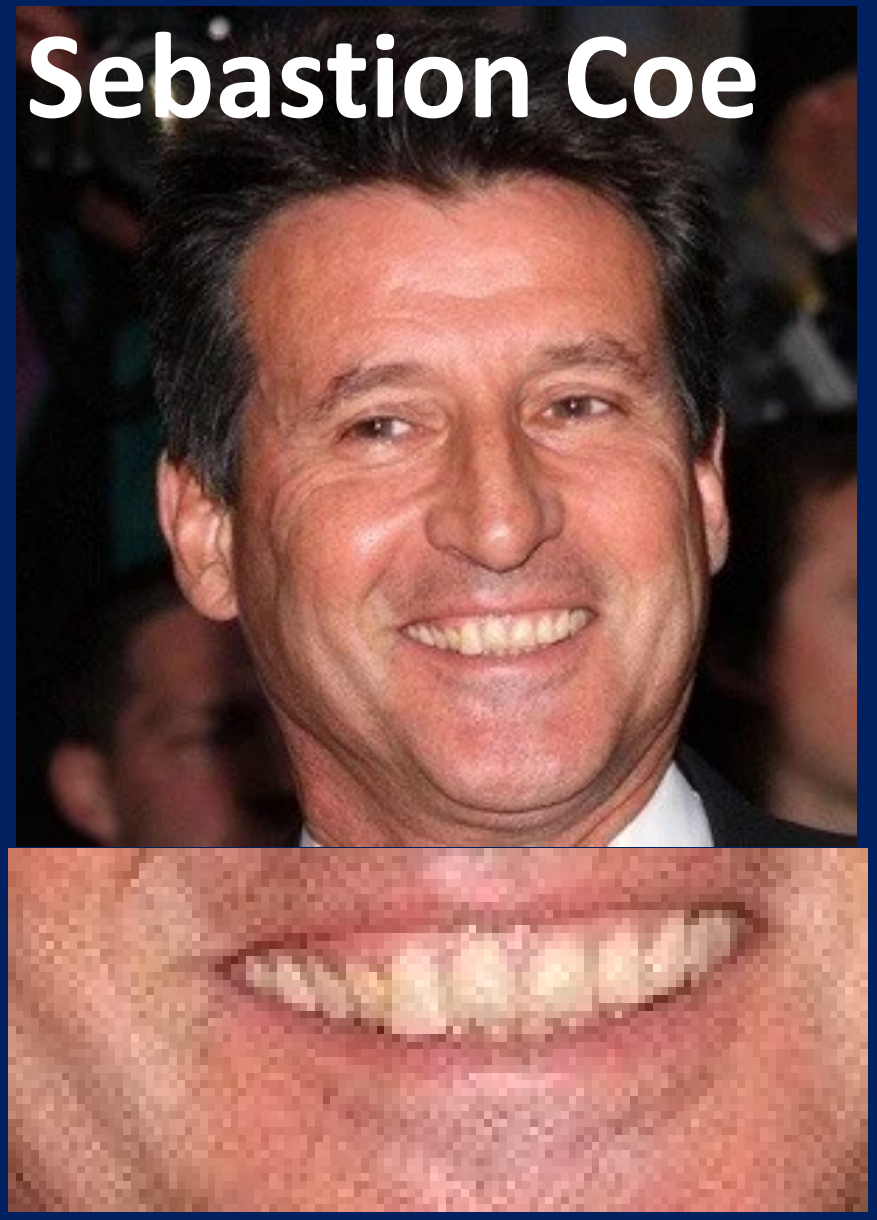
Sebastion Coe

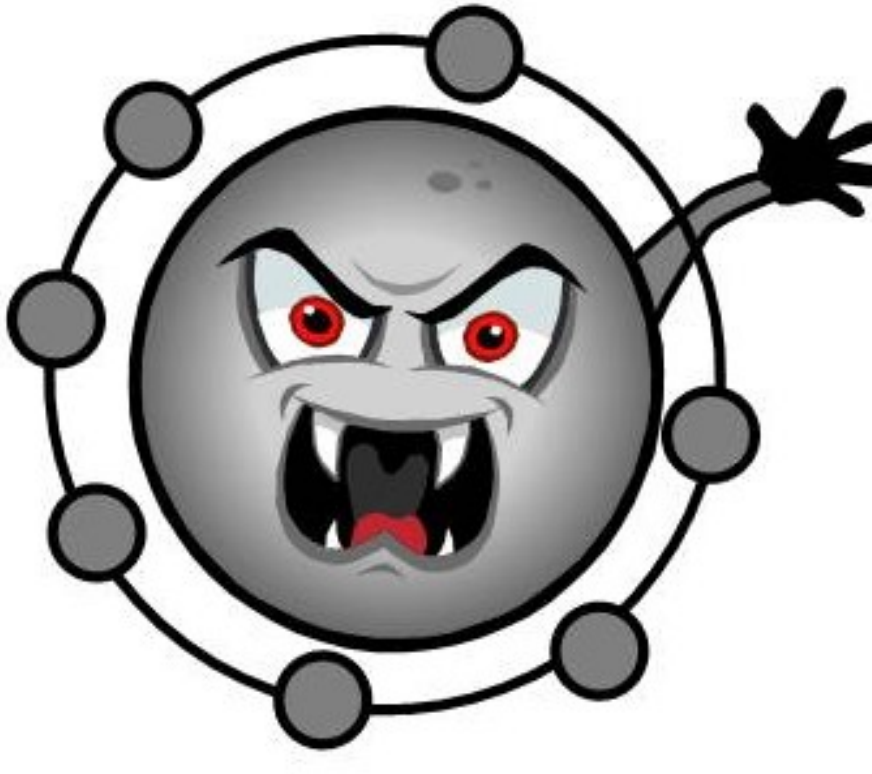


Steve Ovett

A study with students where
50% of the group were given
mega doses of Vitamin C
showed that 85% of these
did not get colds or
nfluenza.
n normal people extra
Vitamin C only showed 8%
benefit but 14% in children.*

Hemilä H, Chalker E (January 2013). "Vitamin C for preventing and treating
he common cold". *The Cochrane Database of Systematic Reviews* (1):

However, when they became sick they then needed extra Vitamin C to protect against the increase in ROS production from the phagocytes and NK cells. Probably of most importance especially with COVID-19 is to protect the collagen of the lung tissue.*



Free Radical

The antiviral properties of vitamin C Ruben Manuel Luciano Colunga Biancatelli, Max Berrill & Paul E. Marik

Extracellular (Prevention)

Maintenance

Intracellular (when infectious)

Monolaurin

Lauric acid

+

Glycerine

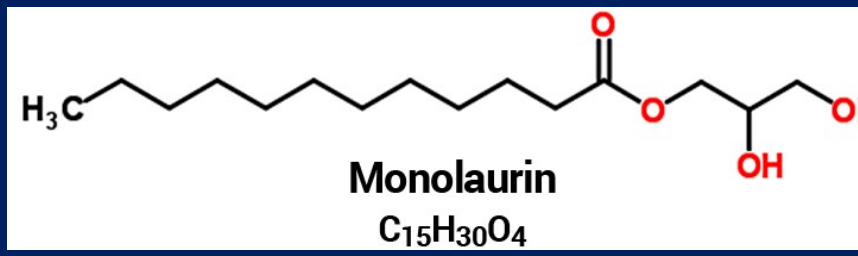
Monolaurin is a surfactant that is a compound that lowers the surface tension between two liquids, or between a liquid and a solid. Surfactants may act as detergents, wetting agents, emulsifiers, foaming agents, and dispersants.

Soap is a surfactant which destroys the virus's envelope.

Hence washing hands 40 seconds while you sing Happy Birthday.

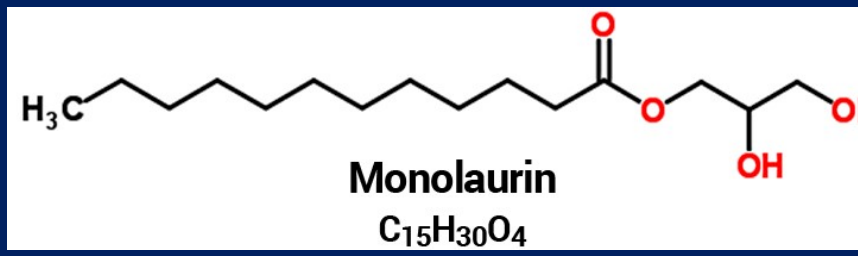
Monolaurin (from Coconut oil)

s known to inactivate lipid-coated viruses by binding to the lipid-protein envelope of the virus, thereby preventing it from attaching and entering host cells, making infection and replication impossible.*



Isaacs, CE; Kim, KS; Thormar, H (6 June 1994). "Inactivation of enveloped viruses in human bodily fluids by purified lipids". *Annals of the New York Academy of Sciences*. 724: 457–64.

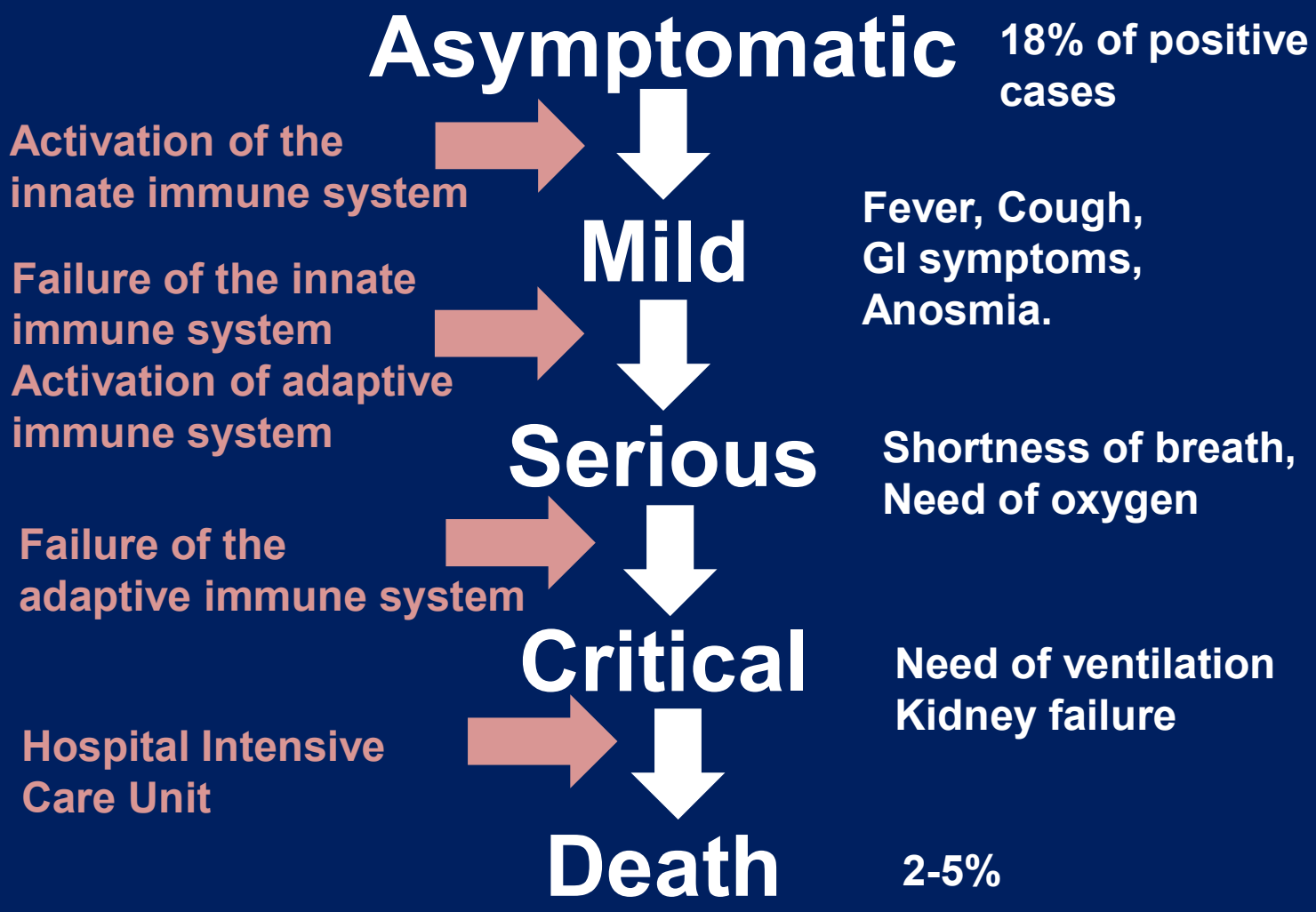
Other studies show that Monolaurin disintegrates the protective viral envelope, killing the virus.*



Thormar, H; Isaacs, C E; Brown, H R; Barshatzky, M R; Pessolano, (1 January 1987). "Inactivation of enveloped viruses and killing of ells by fatty acids and monoglycerides". *Antimicrobial Agents and hemotherapy*. 31 (1): 27–31.

Management during an acute viral infection

Stages of the Disease



During an acute infection

The patient will weaken to the 633nm acetate in the clear. At this stage they may have symptoms or maybe symptom less.

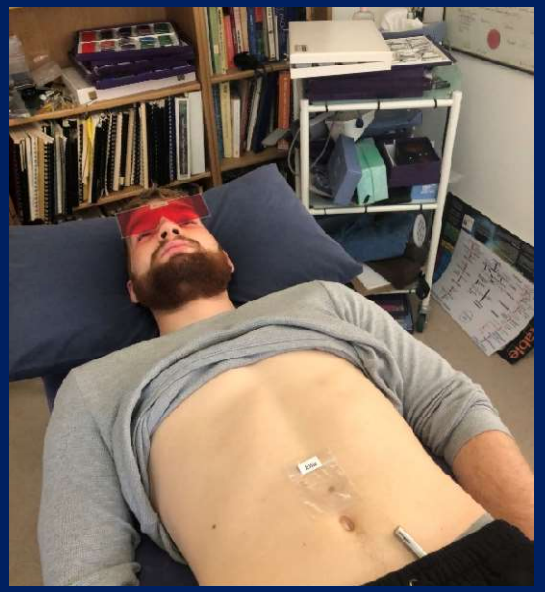
Obviously it's important that the patient is **self isolating** at this time so all testing must be carried out remotely preferably by using a surrogate and the patient's hair sample.

How to surrogate using a hair sample

You require minimum of 6 hairs with roots (contains the DNA) on in a small sealed polythene bag. Place bag on patient along with the “Surrogate” vial.* This is necessary to protect the vital energy of the surrogate.

**Obtainable from Epigenetics Ltd*

1. Check that the surrogate now weakens to the patient's **body type acetate.**



RED

GREEN

BLUE

Remove body type acetate and proceed as like treating a patient directly. Patient will be in strength.

2. Place the **633nm acetate** on the surrogate's abdomen. Strong muscle weakens.

3. Challenge for which meridian strengthens. Then test all the surrogate's muscles on this meridian in the clear. i.e. from strength without the 633nm acetate on.

Should all test weak.

Any effective remedy should strengthen all muscles if it is 100% effective.

My findings

1. Continue patient on **Vitamin D3** and measure dose.

2. Continue patient on **Quercitin, Zinc ascorbate / sulfate** and measure dose. (maybe up to 60mg of each 2x a day with food)

Dr Zelenka from NYC recommends 220mg daily for 5 days

Epigenetics

simply ingenious

Zinc Quercetin

Food Supplement

90 capsules

Suitable for vegans

DIRECTIONS:
Recommended daily dose, 1 serving taken with a meal.

WARNING:
If pregnant or breast feeding, consult your healthcare practitioner before using this product. This product should not be used as a substitute for a varied diet. Do not exceed the recommended daily dose unless prescribed by your practitioner.

STORAGE:
Store in a cool dry place out of reach and sight of children.
Once opened, consume within 9 months.

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INGREDIENT FACTS

Serving size: 1 capsule
Servings per container: 90

Amount per serving		*RI*
Quercetin	333 mg	†
Zinc (from Zinc ascorbate & Zinc sulphate)	20 mg	200%*

† Percent Daily Reference Intakes (RI) not established.

INGREDIENTS:
Quercetin dihydrate extract (*Sophora japonica*), Zinc ascorbate, Zinc sulphate, Vegetable capsule (Hydroxypropyl methylcellulose).

Remove Cap

2 HDPE

3. Change at this stage to **Potassium ascorbate** (2+gm 3x day) to now get the ascorbate intracellular.

Potassium is an intracellular electrolyte and aids the inside of the cell to be less acidic. All positive tested COVID-19 patients are potassium deficient.

. Put patient onto
iposomal
lutathione 10-
5ml (800-2000mg)
x day to increase
ntracellular
etoxification and
revent cytokine
torm.
lternatively use
AC.

4. Test for **Vitamin K2 in Blackcumin seed oil** and dose accordingly.

5. Use **Monolaurin** (Coconut with Glycerine) 3 x day between meals.

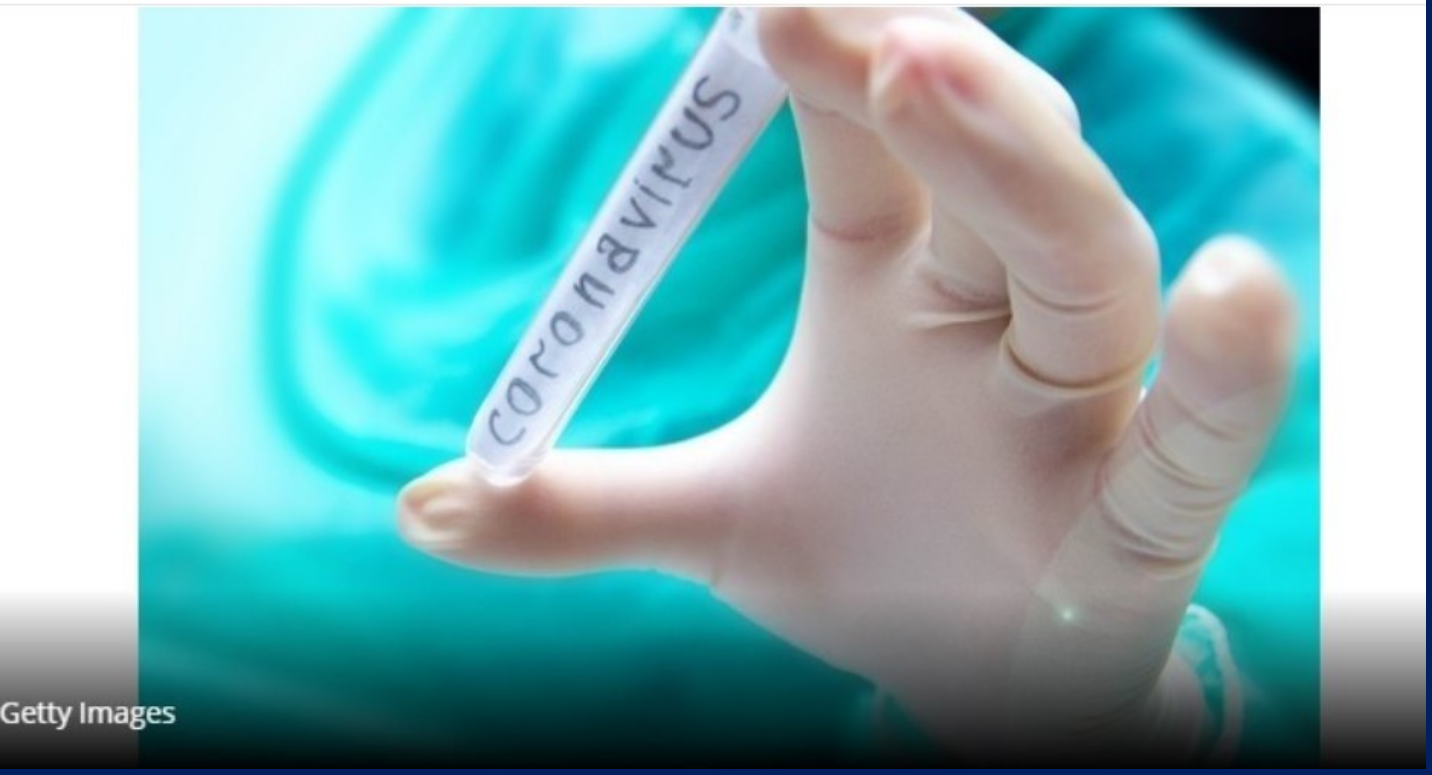
6. **Chlorella** 2 caps 3x day between meals.

. Probiotics

eading scientists urge UK government to e-examine gut's role in coronavirus

Will Chu

May-2020 - Last updated on 18-May-2020 at 14:34 GMT



Authored by professor Glenn Gibson and Dr Gemma Walton from the university of Reading, along with Nottingham Trent university's Dr Kirsty Hunter, the **statement** calls for *'attention to be given to emerging but convincing evidence that gut health may be related to COVID-19.'*

"The research is compelling," professor Gibson says. *"Earlier this year, we started seeing papers coming out of Chir suggesting a link between human response to COVID-19 in our lung/respiratory tract and the state of the gut microbiome."*

The statement published 12 May, and submitted by Julie Elliott, chair of the all-party parliamentary group on t human microbiome, goes on to list a selection of research papers that suggest ways to improve gut health in manner as well as being relatively straightforward to implement.

The researchers also think the papers could prove useful as a way of giving individuals some control as the statement acknowledges the *'existing but expanding'* scientific basis of the link between the gut and coronaviru

"A strong case seems to be emerging of the role of gastrointestinal health in relation to COVID-19," adds Elliott, also Member of Parliament for Sunderland Central.

"This statement draws attention to relevant research, and I hope it is of help to Matt Hancock."

"It has been suggested that gut microbiome status can influence health outcomes in patients with COVID-19," the statement continues.

'Probiotics to flatten curve'

In discussing how to improve gastrointestinal health, the statement highlights the role of probiotics and pre with references to their efficacy in reducing the incidence and duration of common upper respiratory tract infections.

"Some probiotics and prebiotics work by regulating immunity, including anti-inflammatory properties. Other mech of effect include enhancement of the intestinal epithelial barrier competition with pathogens, acidification of the g adhesion to the intestinal epithelium.

"At the present time, it is the case that no probiotics nor prebiotics have been shown to better manage the sympto associated with COVID-19, and research is ongoing."

However, not everyone was supportive of this part of the statement. Writing on Twitter, **Mike Cox** says, *"As a microbiome researcher and one specialising in respiratory disease I find it hard to express how irresponsible I thin suggest that probiotics or prebiotics should be even considered to be part of treatment for COVID-19. I am appalle All-Party Parliamentary Group (APPG) would suggest this.*

He goes on: *"The letter is in no way measured, there have been **cases** of probiotics causing sepsis in ICU patients.*

*"The work omitted from the lead author of the letter's review on the topic titled **"Using probiotics to flatten the cu** reveals to me the motivation of the letter is not careful gut microbiome research, but simple probiotics to the exclu reasoned research."*

Keeping Social Distancing 2 metres apart

Wash hands 8x a day

Wear a face mask

Use disposable gloves

Disinfect all touched objects including keys, doorbells, deliveries and credit cards.

The Week 25th April 2020

The long-term impact of Covid-19

It is becoming increasingly clear that Covid-19 doesn't just affect the lungs – raising concerns that some people who recover from the disease will be left with lasting health problems. A study of 214 hospitalised patients in Wuhan, China, published in Jama Neurology, has found that more than a third developed neurologic symptoms, including dizziness, headaches, impaired consciousness, skeletal-muscle injury and, in a few cases, seizures and stroke. These may have been a result of the virus infiltrating patients' nervous systems, but they could also have been due to their immune system overreacting. A second study in Wuhan found that even when hospitalised patients recovered from the virus, their livers and kidneys showed signs of impairment. "Covid-19 is not just a respiratory disorder," Dr Harlan Krumholz, a cardiologist at Yale University, told the Los Angeles Times. "It can affect the heart, the liver, the kidneys, the brain, the endocrine system and the blood system." Separately, ONS statistics show that 91% of the people who died with Covid-19 in England and Wales in March had at least one pre-existing health condition. However, in 86% of the cases, Covid-19 was the underlying cause of death.

Post Infection and Recuperatio

Obviously the predisposing factors that were present for th virus to infect will still be there post infection.

1. Must get people out into the sunshine to promote Vitamin D and exposed to broad spectrum health giving wavebands of light.

2. Use broad spectrum lighting inside homes.
3. Regular exercise.
4. Avoid high fat and sugar in the diet.
5. Avoid soy in all its forms.
6. Eat plenty of organic fruit and vegetables.
7. Eat whole grains.
8. Take 1-2 capsules of Zinc quercitin daily.
9. Take 1-2 multiple Vitamin / Mineral capsules daily.
10. Take a probiotic(s).
11. Take an Omega 3 fish oil or Flaxseed oil supplement daily.
12. Take 1gm Vitamin C capsule each day.

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The Telegraph

Revealed: the long-term severe effects of Covid-19 that could go on for months

While the vast majority of those who contract Covid-19 will make a full recovery, there is increasing concern about a small but significant number of patients whose symptoms persist weeks and even months after first falling ill.

These long-term symptoms are often “bizarre”, say experts, and range from strange pains and fevers to debilitating headaches and lethargy. They can impact those who suffer only mildly from the disease initially and there may be a link with exercise and the recurrence of symptoms.

Please check yourself and your family daily as the situation can change from one day to the next rapidly.