

VACCINE AIDS = COVID19: Autoimmune, Autoinflammatory Disease & Cancer *Unintended* Consequences of 3
 DECADES LIABILITY FREE VACCINES

| | | |
|-------------------------------|-----------------------------|-----------------------|
| Prostate Cancer* | Crohn's Disease* | Gulf War Syndrome* |
| Breast Cancer * | Hashimoto's Thyroiditis* | Autism / ASD* |
| Multiple Myeloma* | Polymyositis* | Multiple Sclerosis* |
| Non-Hodgkins Lymphoma* | Sjogren's Syndrome * | Parkinson's* |
| Chronic Lymphocytic Leukemia* | Bechet's Disease* | ALS* |
| Mantle Cell Lymphoma* | Primary Biliary Cirrhosis* | Fibromyalgia* |
| Hairy Cell Leukemia* | Inflammatory Bowel Disease* | Chronic Lyme Disease* |
| Bladder Cancer * | Psoriasis, Dermatitis | OCD* |
| Colorectal Cancer* | Diabetes* | ADHD* |
| Kidney Cancer * | Cardiovascular Disease* | PTSD* |
| Ovarian Cancer* | ME / CFS* | Psychosis* |
| | Lupus/SLE* | Rheumatoid Arthritis* |

**Neuroendocrine Tumors*

**KEY to IMMUNITY is do not defile the TEMPLE of GOD
 NEVER GET ANOTHER VACCINE**

SYNCYTIN: ONLY One Component of Snake Venom additional components/toxins in Food, Water “Drugs”

FEBS Letters 436 (1998) 256–258

FEBS 20902

Enhancement and inhibition of snake venom phosphodiesterase activity by lysophospholipids



ScienceDirect

Estuarine, Coastal and Shelf
Science

Volume 219, 5 April 2019, Pages 161-168

Microplastic pollution in commercial salt for human consumption: A review

Diogo Peixoto ^{a,*,} Carlos Pinheiro ^{a,} João Amorim ^{a,} Luís Oliva-Teles ^{a, b,} Lúcia Guilhermino ^{a, c,} Maria Natividade Vieira ^{a, b}

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<https://doi.org/10.1016/j.ecss.2019.02.018>

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Highlights

- Plastics as marine debris are the new addition to the list of global threats.
- Marine pollution will undoubtedly lead to the contamination of sea products.
- Microplastics in salts might pose a threat to human food safety and health.
- Microplastics sorb contaminants and transfer them to salt and other products.



Bayer Request for Additional Information and Attestation Regarding Religious Exemption / Accommodation Form (Covid-19 Vaccine)

Bayer requires additional information to further consider your request for a religious exemption/accommodation. Please complete this form and attestation and submit it to accommodations_US@bayer.com.

Your request appears to be principally based upon your objection to the use of fetal cell lines in the testing, research, and development of the COVID-19 vaccine and/or your belief concerning the purity of the body. The information reported on this form will serve to validate your understanding of fetal cell use in common medicines and consumer products, and aid in assessing the sincerity of your professed religious belief.

The following is a non-exhaustive list of common medicines and products that have used fetal cells in testing, research, and/or development.¹

| | | | |
|----------------------------|--------------------|----------------------|------------|
| Acetaminophen | Enbrel | Maalox | Sudafed |
| Acetylsalicylic Acid (ASA) | Ex-Lax, Zocor | Metformin/Glucophage | Suphedrine |
| Advil | Havrix | Motrin | Toprol |
| Albuterol | Hydroxychloroquine | Mucinex | Tums |
| Aleve | Ibuprofen | Pepto Bismol | Tylenol |
| Amlodipine/Norvasc | Ivermectin | Preparation H | Varilrix |
| Aspirin | Levothyroxine | Prilosec OTC/Zegrid | Zoloft |
| Azithromycin | Lidocaine | Robitussin/Delsym | Zostavax |
| Benadryl | Lipitor | Senokot | |
| Claritin | Losartan/Cozaar | Simvastatin | |

To be Completed by Individual Requesting the Accommodation

| | |
|-----------------------------|--|
| Full Name: | Click here to enter name. |
| Employee or Contractor ID # | <input type="text"/> |
| Email: | Click here to enter email. |

| | |
|---|---|
| Please state whether your religious objection to the COVID-19 vaccine is equally applicable to the above medicines and other products that used fetal cells in testing, research, and/or development. If not, please explain why. | Click here to enter text. |
| If your religious objection to the COVID-19 vaccine is equally applicable to medicines and products that used fetal cells in testing, research, and/or development, please state whether you abstain from using all such medicines and products. If not, please | Click here to enter text. |

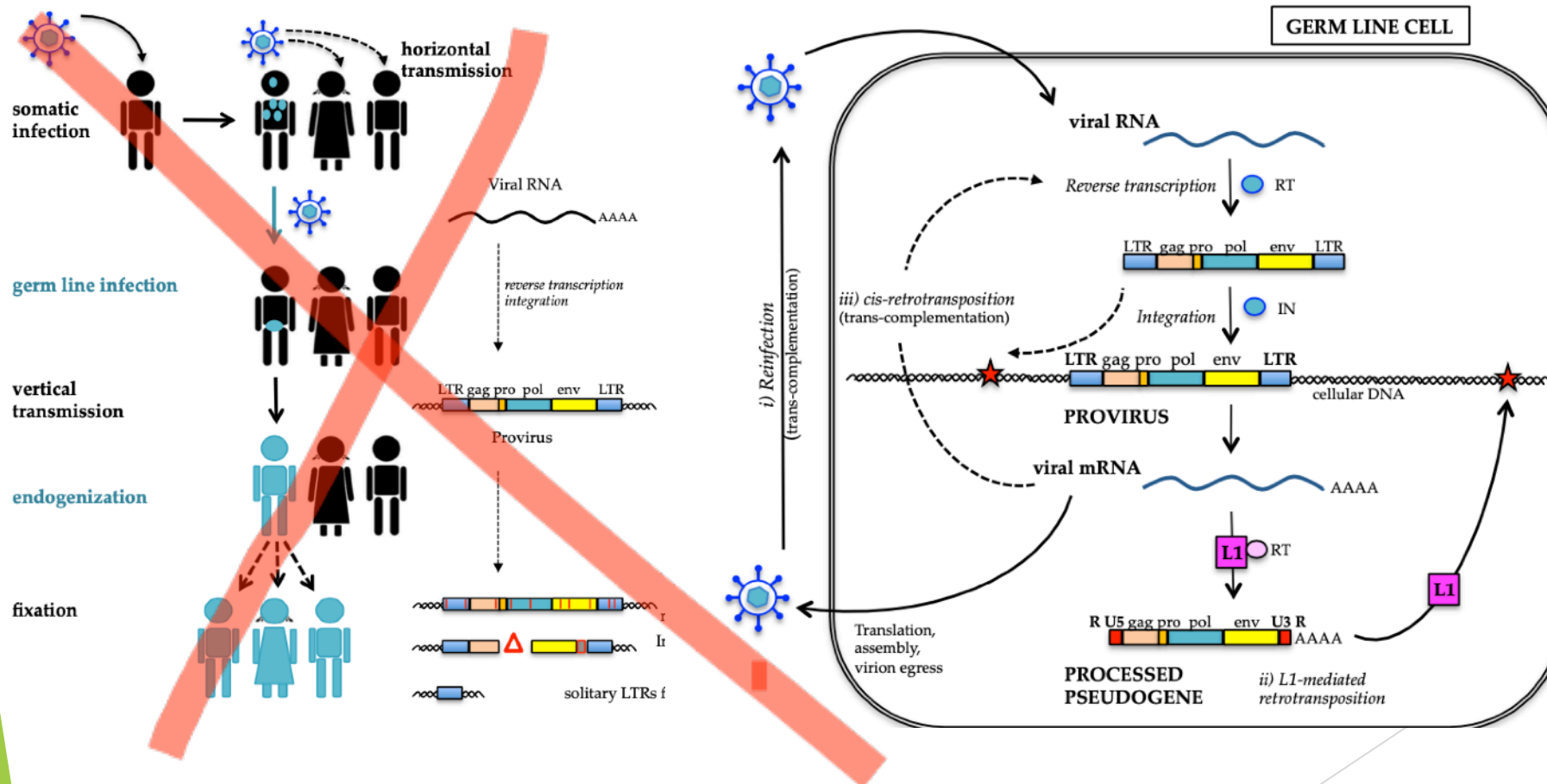
EVERY CHROMOSOME HAS HERVW TO PROTECT OUR GENOME FROM FOREIGN SYNCYTIN (SNAKE VENOM)



Viruses 2017, 9, 162; doi:10.3390/v9070162

Review

Type W Human Endogenous Retrovirus (HERV-W) Integrations and Their Mobilization by L1 Machinery: Contribution to the Human Transcriptome and Impact on the Host Physiopathology

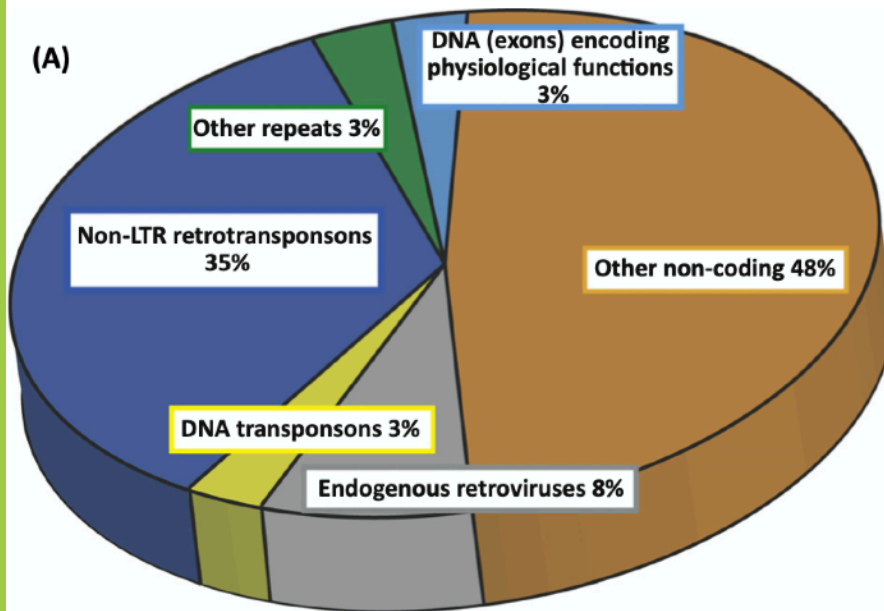


| Chr | HERV-W* | Chr | HERV-W* |
|-----|------------|-----|------------|
| 1 | 16 (4, 10) | 13 | 6 (2, 3) |
| 2 | 23 (6, 16) | 14 | 6 (3, 3) |
| 3 | 22 (4, 16) | 15 | 3 (0, 3) |
| 4 | 19 (8, 10) | 16 | 0 |
| 5 | 9 (5, 3) | 17 | 4 (1, 3) |
| 6 | 18 (4, 12) | 18 | 4 (1, 3) |
| 7 | 12 (7, 5) | 19 | 6 (2, 4) |
| 8 | 9 (1, 8) | 20 | 2 (0, 2) |
| 9 | 7 (1, 5) | 21 | 3 (2, 1) |
| 10 | 7 (2, 5) | 22 | 1 (0, 1) |
| 11 | 9 (4, 5) | X | 12 (1, 10) |
| 12 | 13 (5, 7) | Y | 2 (2, 0) |

* Total number of HERV-W insertions. Numbers into round brackets specify the amount of proviruses and pseudogenes, respectively, with respect to the total. The rest of the sequences can not be classified due to the absence of LTRs distinctive signatures (data from Grandi et al. 2016)

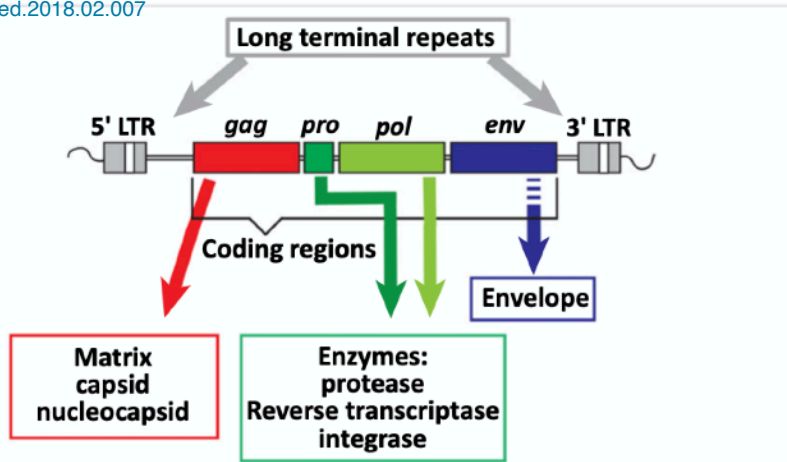
Human Endogenous (God GIVEN) VIROME: Protection against Viral Infections

Retroviruses, heavy metals, GMOs, and environmental toxins: Drivers of Accelerated Disease Evolution via altered balance between Endogenous (HERVS) and Exogenous Viruses

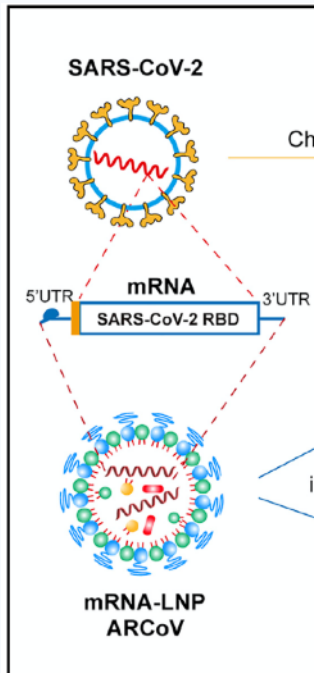


- 8% of our genome composed of sequences of viral origin
- stable elements at the interface between self and foreign DNA.
- HERV envelope Syncytin “Velcro” Fertilized embryo
- LTR participate in the transcriptional regulation of cellular genes
- HERV basal expression in healthy tissues
- HERV RNA, DNA, Proteins shape & expand the interferon network
- HERVs play a central role in the evolution and functioning of human innate immunity

Trends in Molecular Medicine, April 2018, Vol. 24, No. 4 <https://doi.org/10.1016/j.molmed.2018.02.007>



Breakdown of cell membranes and release of the PLA2...starts inflammation
Damage so severe lungs are filling up...brain is fooled because it happens rapidly!



SCAN ME



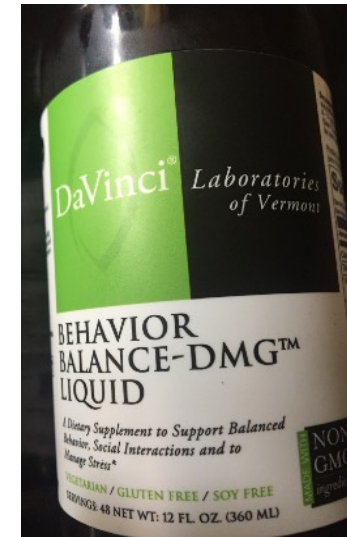
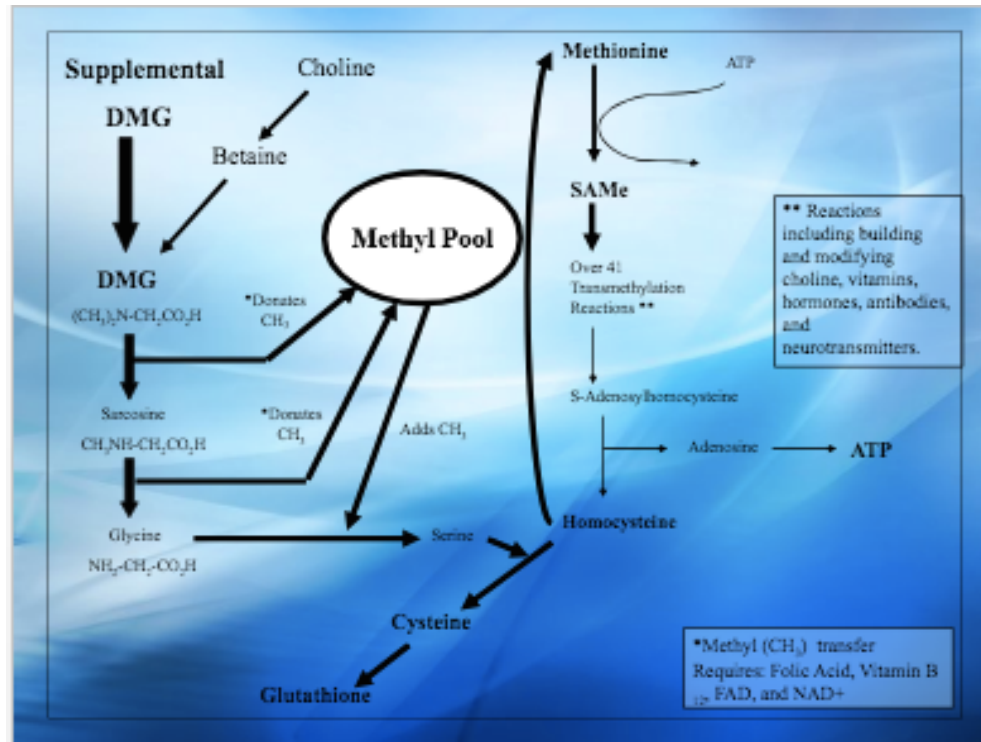
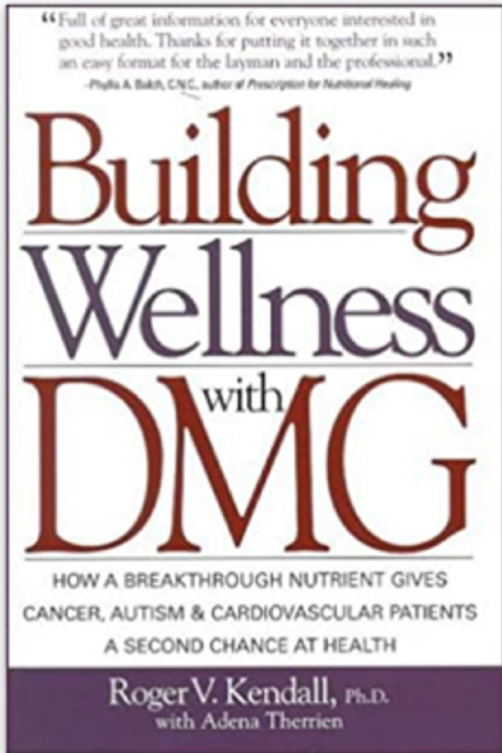
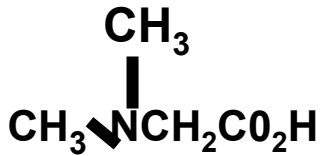
Detoxing that synthetic Lipid
Nano Particle
(SARS-CoV2 virus & COVID
Vaccine)

- Ozone therapies
- Specialized Pro resolving mediators
- Chlorine Dioxide, MMS, CDS

DiMethylGlycine

Nutrition's Best Kept secret for strengthening Genomic Pathways and Preventing Disease

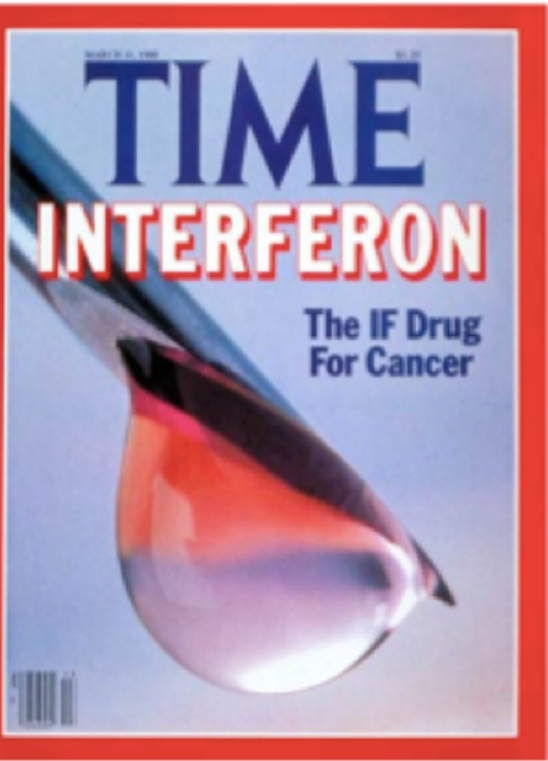
- Amino Acid – Intermediary metabolite of the human body



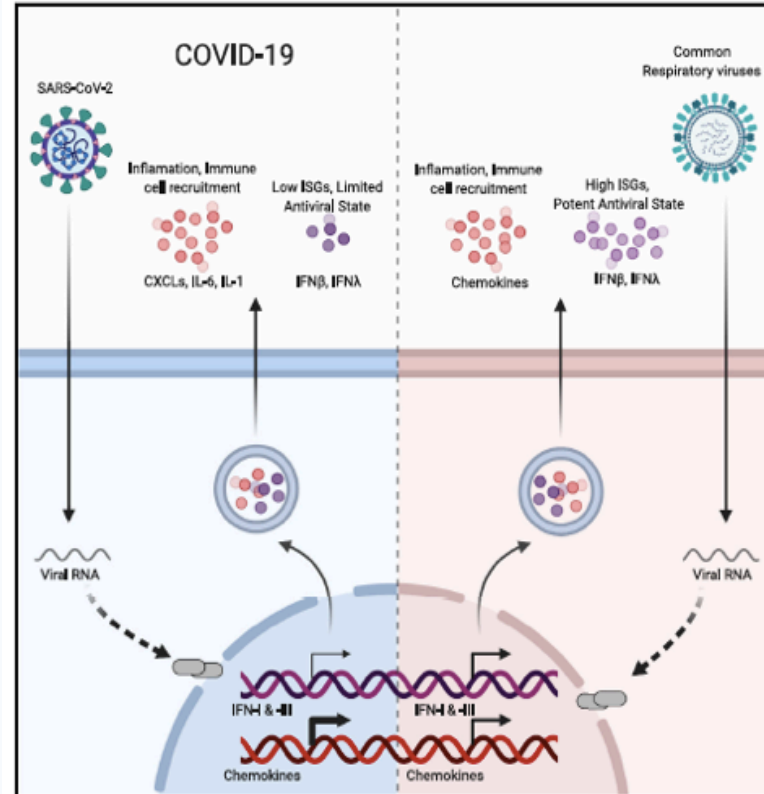
- Important nutrient found in low levels in our food
- As a Key Nutrient DMG PROTECTS OUR



Imbalanced IFN Response to RNA Viruses Drives Development of Autoimmune, Autoinflammatory Disease & Cancer



Graphical Abstract



Authors

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Wen-Chun Liu, ..., Jean K. Lim,
Randy A. Albrecht, Benjamin R. tenOever

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randy.albrecht@mssm.edu (R.A.A.),
benjamin.tenoever@mssm.edu (B.R.t.)

In Brief

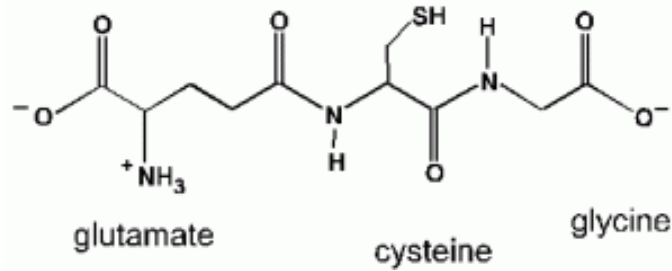
In comparison to other respiratory viruses, SARS-CoV-2 infection drives a lower antiviral transcriptional response that is marked by low IFN-I and IFN-III levels and elevated chemokine expression, which could explain the pro-inflammatory disease state associated with COVID-19.



Glyphosate: Damages Key GOD GIVEN antioxidant Glutathione

Produced by the liver, glutathione is made up of three amino acids: [Lcysteine](#), [glycine](#), and L-glutamate

glutathione (GSH)



[ACS Infect Dis.](#) 2020 May 28 : acsinfecdis.0c00288.

PMCID: PMC7263077

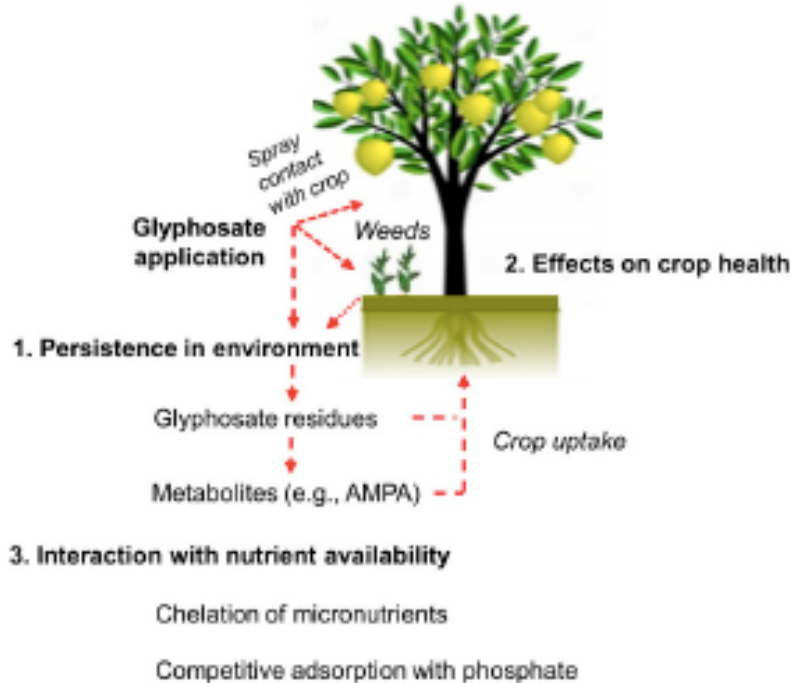
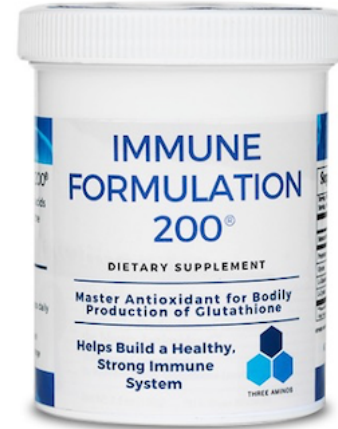
Published online 2020 May 28. doi: [10.1021/acsinfecdis.0c00288](https://doi.org/10.1021/acsinfecdis.0c00288)

PMID: [32463221](https://pubmed.ncbi.nlm.nih.gov/32463221/)

Endogenous Deficiency of Glutathione as the Most Likely Cause of Serious Manifestations and Death in COVID-19 Patients

[Alexey Polonikov^{MD}](#)

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Endogenous glutathione deficiency appears to be a crucial factor enhancing SARS-CoV-2-induced oxidative damage of the lung and, as a result, leads to serious manifestations, such as acute respiratory distress syndrome, multiorgan failure, and death in COVID-19 patients. When the antiviral activity of GSH is taken into account, individuals with glutathione deficiency seem to have a higher susceptibility for uncontrolled replication of SARS-CoV-2 virus and thereby suffer from an increasing viral load. The severity of clinical manifestations in COVID-19 patients is apparently determined by the degree of impaired redox homeostasis attributable to the deficiency of reduced glutathione and increased ROS production. This assumption can be supported by our findings. In particular, COVID-19 patients with moderate and severe illness had lower levels of glutathione, higher ROS levels, and greater redox status (ROS/GSH ratio) than COVID-19 patients with a mild illness. Long-term and severe manifestations of COVID-19 infection in one of our patients with marked glutathione deficiency suggest that the degree of glutathione decrease correlates negatively with viral replication rate and that an increasing viral load exacerbates oxidative damage of the lung. This finding suggests that the virus cannot actively replicate at higher levels of cellular glutathione, and therefore, milder clinical symptoms are observed with lower viral loads.

| SUPPLEMENT FACTS | | | |
|-------------------------------------|---------|-------------|----------------|
| Servings Per Container | | | 62 |
| Serving Size | | | 1 Scoop (1.6g) |
| Amount per serving | | | |
| Calories | | | 0 |
| | | Standard DV | % Daily Value* |
| Selenium (from selenomethionine) | 4.5 mcg | 75 mcg | 6% |
| Proprietary Amino Acid Blend | 1450 mg | | |
| Glycine L-Glutamine L-Cystine | | | |

Glyphosate in our soil -> our plants are SICK -> Does toxic food cause COVID?

Taking advantage of Synergies: Pathway Crosstalk and DMG

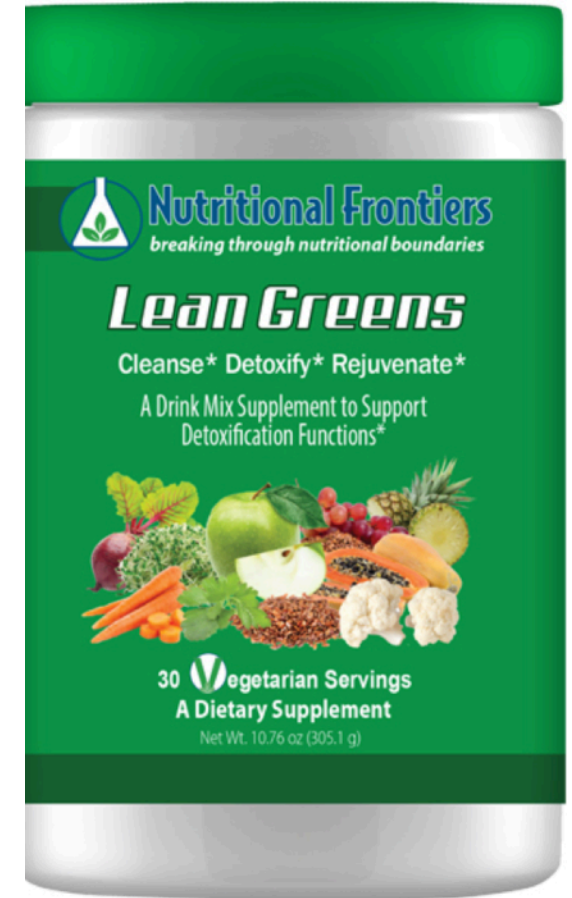
•Detoxification support is provided in **Pro Lean Greens** as N-Acetyl- L-Cysteine, spirulina, chlorella, N,N-Dimethylglycine (DMG), milk thistle, and **Emothion® S-Acetyl-L-Glutathione**. Glutathione is a key part of liver detoxification as it binds toxic chemicals as well as being a free radical scavenger.

•Glutathione is active in Phase II detoxification, helping the body manage carcinogens, toxins, and drugs.

- The **methyl donor DMG** assists in the biosynthesis of vitamins, hormones, neurotransmitters, antibodies & nucleic acids.
- **DMG was patented over three decades ago for treating systemic inflammatory disease**, modulating immune response, and boasts in vitro evidence of antioxidant effects via free radical scavenging activity and enhancement of the endogenous antioxidant defense system.
- Milk thistle (*Silybum marianum*) is used to protect and restore function of the liver with ample research behind its traditional uses.



SCAN ME

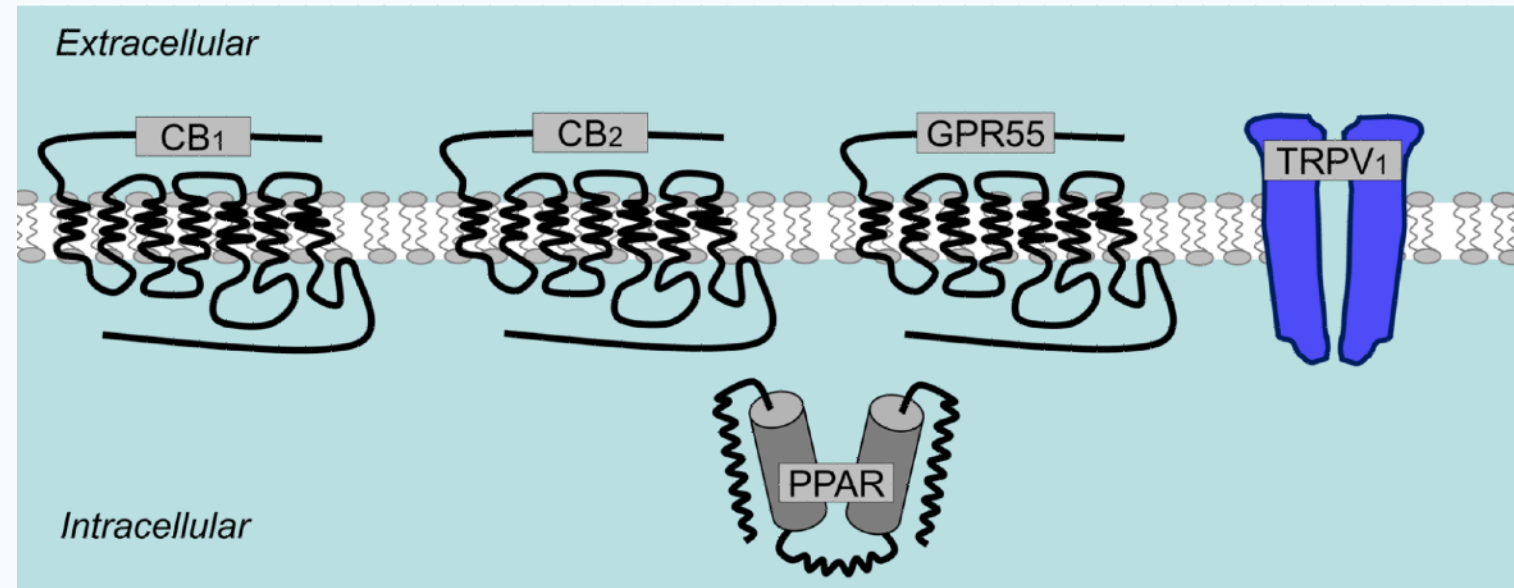
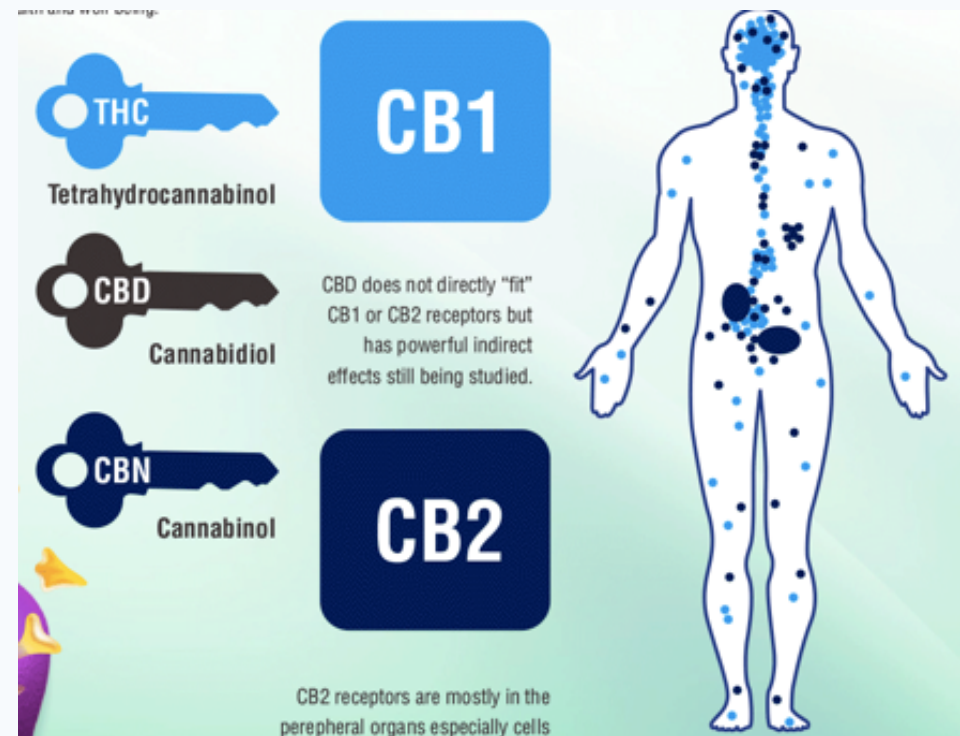


The Human Endocannabinoid System (eCS)

GOD GIVEN Regulator of stem cells Immune Homeostasis & Neuroimmune Health

A signaling system that helps to modulate all other physiological, behavioral, and energetic processes in the body.

Glia. 2010 July ; 58(9): 1017–1030

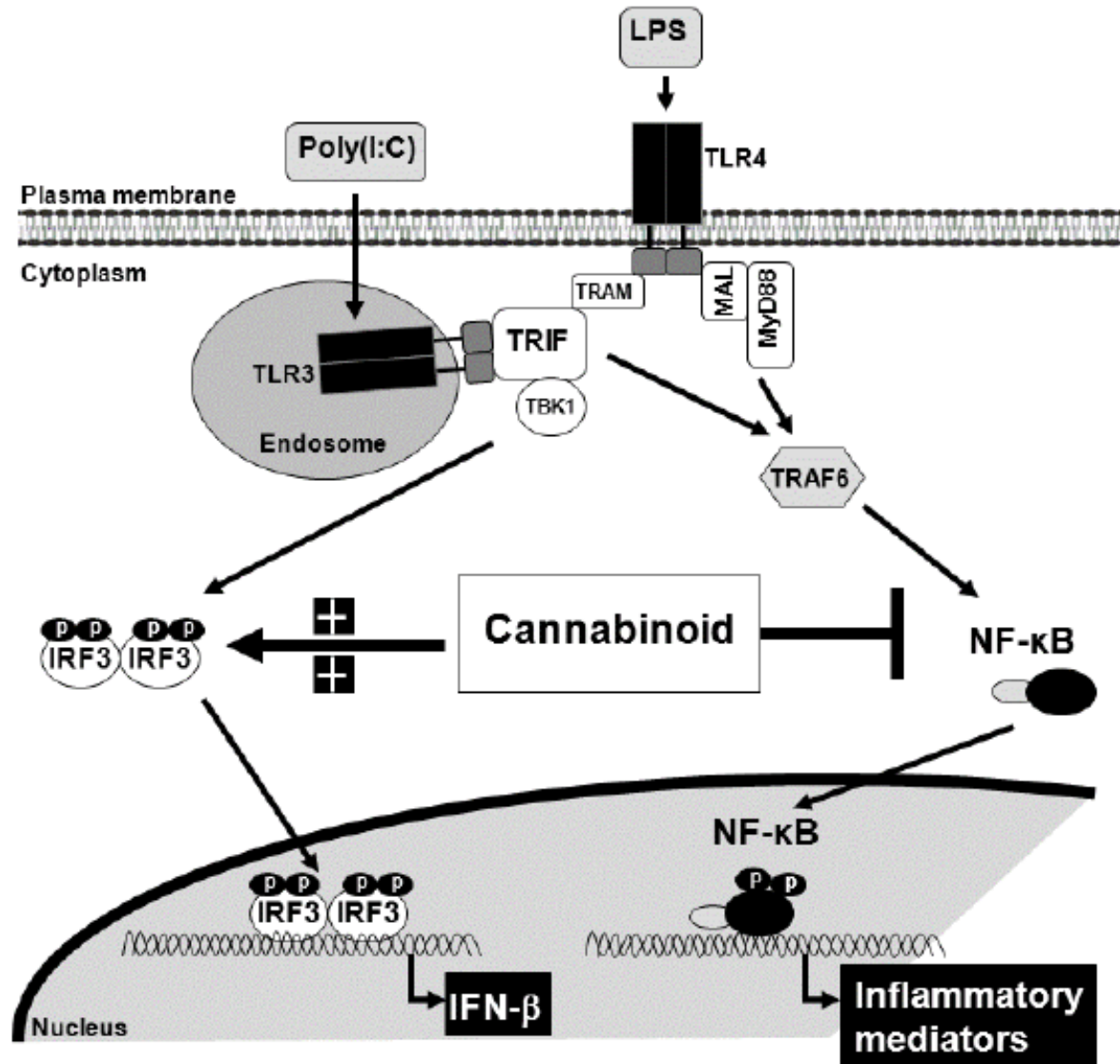


- Anxiety
- Depression
- Sleep Disorders
- Pain
- Itch
- Wound healing

- *neuroprotection & plasticity*
- *immunity & inflammation*
- *apoptosis & carcinogenesis*
- *pain and emotional memory*
- *Supports detoxification:*
 - *repairs Fibrosis*
 - *fatty Liver disease*

Cannabinoids are Anti-Viral and Reduce inflammation

THE DIMMER SWITCH ON THE FLAME



CANNABIS is NOT a DRUG! IT'S Food!! Nourish CELLS ALL Plants (HEMP & CANNABIS) Removed from US 1938!

Drug
Metabolism
Reviews

<http://informahealthcare.com/dmr>
ISSN: 0360-2532 (print), 1097-9883 (electronic)
Drug Metab Rev, 2014; 46(1): 86-95
© 2014 Informa Healthcare USA, Inc. DOI: 10.3109/03602532.2013.849268

informa
healthcare

REVIEW ARTICLE

Exogenous cannabinoids as substrates, inhibitors, and inducers of human drug metabolizing enzymes: a systematic review

GOD GIVEN LIPID/FAT SIGNALING SYSTEM in EVERY Cell MEMBRANE

REVIEW

Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects

Ethan B Russo

GW Pharmaceuticals, Salisbury, Wiltshire, UK

Correspondence

Ethan Russo, MD, 20402 81st Avenue SW, Vashon, WA 98070, USA. E-mail: ethanrusso@comcast.net

Keywords

cannabinoids; terpenoids; essential oils; THC; CBD; limonene; pinene; linalool; caryophyllene; phytotherapy

Received

19 November 2010

Revised

29 December 2010

Accepted

12 January 2011



Article

Terpenoids and Phytocannabinoids Co-Produced in Cannabis Sativa Strains Show Specific Interaction for Cell Cytotoxic Activity

Dvora Namdar^{1,*}, Hillary Voet¹, Vinayaka Ajjampura¹, Stalin Nadarajan¹, Einav Mayzlish-Gati², Moran Mazuz¹, Nurit Shalev¹ and Hinanit Koltai¹

¹ Institute of Plant Sciences, Agricultural Research Organization, Volcani Center, Bet Dagan 7505101, Israel

² Israeli Gene Bank, Volcani Center, Bet Dagan 7505101, Israel

* Correspondence: dvoran@volcani.agri.gov.il

| Terpenoid | Structure | Commonly encountered in | Pharmacological activity (Reference) | Synergistic cannabinoid |
|-----------|-----------|-------------------------|---|--|
| Limonene | | Lemon | Potent AD/immunosuppressant via inhalation (Komori et al., 1995) Acidolytic (Carvalho-Freitas and Costa, 2002; Patrino Ade et al., 2006) via 5-HT _{1A} (Korniya et al., 2004) Apoptosis of breast cancer cells (Vigushin et al., 1998) Active against acne bacteria (Kim et al., 2008) Dermatophytes (Sanguinetti et al., 2007; Singh et al., 2010) Gastro-oesophageal reflux (Hertz, 2010) | CBD CBD CBD, CBG CBD CBG THC |
| α-Pinene | | Pine | Anti-inflammatory via PGE-1 (Gil et al., 1989) Bronchodilatory in humans (Falk et al., 1990) Acetylcholinesterase inhibitor, aiding memory (Ferry et al., 2000) | CBD THC THC, CBD |
| β-Myrcene | | Hops | Blocks inflammation via PGE-2 (Lorenzetti et al., 1991) Analgesic, antagonized by naloxone (Rao et al., 1990) Sedating, muscle relaxant, hypnotic (de Vile et al., 2002) Blocks hepatic carcinogenesis by aflatoxin (de Oliveira et al., 1997) | CBD CBD, THC THC CBD, CBG |
| Linalool | | Lavender | Anti-anxiety (Russo, 2001) Sedative on inhalation in mice (Buchbauer et al., 1993) Local anesthetic (Re et al., 2000) Analgesic via adenosine A _{2A} (Peters et al., 2004) Anticonvulsant/anti-glutamatergic (Silabebdy et al., 1995) | CBD, CBG THC THC CBD CBD, THC, CBG, CBDV |
| | | | Potent anti-leishmanial (do Socorro et al., 2003) | ? |

| | | | | |
|---------------------|--|----------------|--|---|
| β-Caryophyllene | | Pepper | AI via PGE-1 comparable phenylbutazone (Stalle et al., 1988) Gastric cytoprotective (Tambe et al., 1996) Anti-malarial (Carpell et al., 1997) Selective CB ₂ agonist (100 nM) (Gerlach et al., 2000) Treatment of pruritus? (Karak et al., 2007) Treatment of addiction? (Xi et al., 2010) | CBD THC ? THC THC THC CBD |
| Caryophyllene Oxide | | Lemon balm | Decreases platelet aggregation (Lin et al., 2003) Antifungal in onychomycosis comparable to ciclopiroxolamine and salicylate (Yang et al., 1999) Insecticidal/anti-feedant (Sattarini et al., 1993) | THC CBD, CBG THCA, CBGA |
| Nerolidol | | Orange | Sedative (Siret et al., 1972) Skin penetrant (Cornwell and Barry, 1994) Potent antimarial (Lopes et al., 1999, Rodrigues Goulart et al., 2004) Anti-leishmanial activity (Amada et al., 2005) | THC, CBN - ? ? |
| Phytol | | Green tea | Breakdown product of chlorophyll Prevents Vitamin A isomerization (Arnhold et al., 2002) TCGA via SSADH inhibition (Rang et al., 2002) | - - CBG |



Beta-caryophyllene is a dietary cannabinoid

Jürg Gertsch*[†], Marco Leonti*[‡], Stefan Raduner*[‡], Ildiko Racz[¶], Jian-Zhong Chen[¶], Xiang-Qun Xie[¶], Karl-Heinz Altmann*, Meliha Karsak[¶], and Andreas Zimmer[¶]

*Institute of Pharmaceutical Sciences, Department of Chemistry and Applied Biosciences, Eidgenössische Technische Hochschule (ETH) Zurich, 8092 Zürich, Switzerland; [‡]Dipartimento Farmaco Chimico Tecnologico, University of Cagliari, 01924 Cagliari, Italy; [¶]Department of Molecular Psychiatry, University of Bonn, 53115 Bonn Germany; and [†]Department of Pharmaceutical Sciences, University of Pittsburgh, Pittsburgh, PA 15260

β -Caryophyllene, A Natural Dietary CB2 Receptor Selective Cannabinoid can be a Candidate to Target the Trinity of Infection, Immunity, and Inflammation in COVID-19

 Niraj Kumar Jha^{1†},  Charu Sharma^{2†},  Hebaallah Mamdouh Hashiesh³,  Seenipandi Arunachalam³,  MF Nagoor Meeran³,  Hayate Javed⁴,  Chandragouda R. Patil⁵,  Sameer N. Goyal⁶ and  Shreesh Ojha^{3*}



Beta-caryophyllene enhances wound healing through multiple routes

Sachiko Koyama , Anna Purk, Manpreet Kaur, Helena A. Soini, Milos V. Novotny, Keith Davis, C. Cheng Kao, Hiroaki Matsunami, Anthony Mescher

Published: December 16, 2019 • <https://doi.org/10.1371/journal.pone.0216104>



Cannabinoids regulate MINERALS in Immune Cells via endocannabinoid System Receptors

- A downside of activation of MINERALS is the dysregulation endogenous microbes
- **OUR SOILS ARE DEPLETED OF MINERAL!**

| | | | | | | |
|------------------|------------------------------------|---------|--|---|--|---|
| TRPV1/2 | Ca ²⁺ /Na ⁺ | PM | Heat (fever?), low pH, mechanical stress | | Mono, macro | Degranulation, phagocytosis, cytokine production |
| TRPC3/6 | Ca ²⁺ /Na ⁺ | PM | PLC activation (DAG), PIP ₂ | | T, B, NK cells, neutro | Chemotaxis, degranulation |
| TRPM2 | Ca ²⁺ /Na ⁺ | PM, lys | H ₂ O ₂ , NAADP, cADPR | | T, B, neutro, mast cells, DC | Cytokine production, degranulation |
| Magnesium | | | | | | |
| TRPM6 | Mg ²⁺ >Ca ²⁺ | PM | | Inhibited by [Mg ²⁺] _i | Gut, kidney, hematopoietic (not T cells) | Unknown in immune cells |
| TRPM7 | Mg ²⁺ >Ca ²⁺ | PM | Unknown (BCR, TCR?) PIP ₂ (?) | Inhibited by [Mg ²⁺] _i | Ubiquitous | T cell development, T and B cell proliferation, cytokine production |



Review

CellPress

Divalent cations of two alkaline earth metals Ca²⁺ and Mg²⁺ and the transition metal Zn²⁺ play vital roles in the immune system, and several immune disorders are associated with disturbances of their function. Until re-

Divalent cation signaling in immune cells

Benjamin Chaigne-Delalande and Michael J. Lenardo

Molecular Development of the Immune System Section, Lymphocyte Molecular Genetics Unit, Laboratory of Immunology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD 20892, USA

Trends in Immunology July 2014, Vol. 35, No. 7

Nutritional Support

provide the building blocks to support nitric oxide formation which may enhance overall circulation, including heart health and erectile dysfunction.

SUPPLEMENT FACTS

Serving Size: 2 Capsules

Servings Per Container: 60

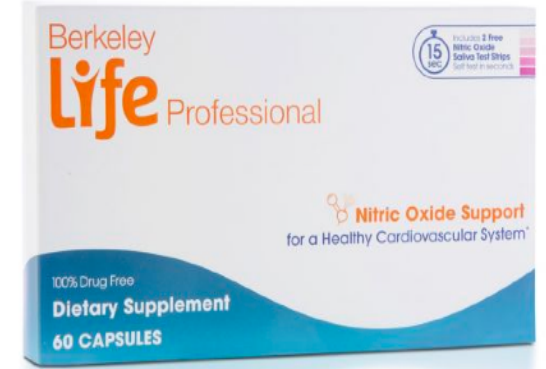
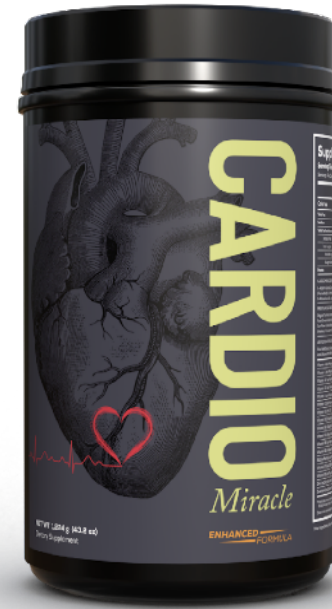
Amount Per Serving

| | |
|---|---------|
| Vitamin C (as Ascorbic Acid) | 100 mg |
| Vitamin B12 (Methylcobalamin) | 100 mcg |
| Folate (as Quatrefolic® (equivalent to 200 mcg of [6S]-5-Methyltetrahydrofolic acid, glucosamine salt)) | 100 mcg |
| Beet Root Powder | 200 mg |
| Activin® Grape Seed Extract (vitis vinifera) 100:1 | 120 mg |
| Hawthorne | 100 mg |
| L-Citrulline | 100 mg |
| L-Arginine | 100 mg |

Other Ingredients: Vegetable Cellulose (Capsule),
Microcrystalline Cellulose, Silicon Dioxide, Magnesium Stearate

Suggested Use: As a dietary supplement, take two capsules
daily, or as directed by your healthcare practitioner.

Warning: If you are pregnant or nursing, consult your health care
practitioner before taking this product.



Nitric oxide is a soluble gas that is continually being made from arginine in endothelial cells. Endothelial cells comprise a layer of cells inside the lining of our blood vessels.

Taking advantage of synergies/cross talk in Pathways enhances Efficacy and Safety profiles of Pharmaceutical Drugs



Review

Targeting the CB₂ receptor for immune modulation

Charles A Lunn, Eva-Pia Reich & Loretta Bober

Pages 653-663 | Published online: 18 Sep 2006

[Download citation](#) <https://doi.org/10.1517/14728222.10.5.653>

Interaction between Cannabinoid System and Toll-Like Receptors Controls Inflammation

Kathleen L. McCoy

Department of Microbiology and Immunology, Virginia Commonwealth University, P.O. Box 980678, Richmond, VA 2329



'FREEDOM20'
20% off your entire order.
HempMindandBody.com



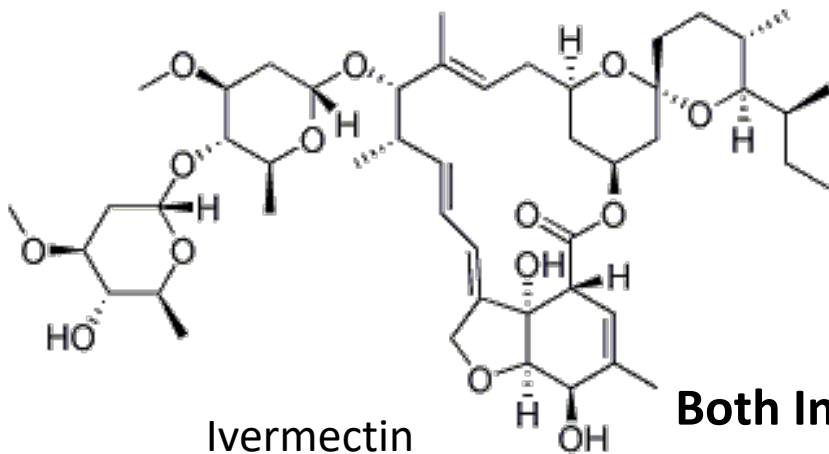
Dr. Zelenko's Zstack + CBD

Suramin & Ivermectin: Purinergic Modulators important for restoring balance of Innate and adaptive Immunity



Suramin

- Antiparasitic 1920s
- Potent RT inhibitor 1986
- P2Y Purinergic Receptor inhibitor
- Cancer therapy prostate cancer, HTLV-1 cancer Bladder Cancer
- inhibits the binding of growth factors (TGF-beta, EGF, PDGF to their receptors and thus antagonize the ability of these factors to stimulate growth of tumor cells



Ivermectin

- modulator of the ATP/P2X4/P2X7 axis
- selectively targets immunosuppressive myeloid cells and Tregs
- functions as an RNA helicase
- an activator of chloride channel receptors
- inducer of mitochondrial dysfunction and oxidative stress

**Both Inhibit Plasmodium parasite of the blood plasma.
a parasite that affects the oxygen carrying capacity of the red blood cells**



100 Years of Suramin

Natalie Wiedemar,^{a,b} Dennis A. Hauser,^{a,b}  Pascal Mäser^{a,b}

SURAMIN, THE FRUIT OF EARLY MEDICINAL CHEMISTRY

SURAMIN AS AN ANTIPARASITIC DRUG

SURAMIN AS AN ANTIVIRAL AGENT

SURAMIN AGAINST CANCER

SURAMIN AS AN ANTIDOTE

Three of the many biological activities of suramin support its potential use as a protective agent: the inhibition of thrombin, the inhibition of phospholipase A2, and the inhibition of purinergic signaling

FURTHER POTENTIAL USES OF SURAMIN

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MINIREVIEW



TABLE 1 Diseases and pathogens susceptible to suramin

| Disease and/or pathogen | Activity in ^a : | | |
|-------------------------------------|----------------------------|--------------|---------|
| | Cell culture | Animal model | Patient |
| Parasitic infections | | | |
| <i>T. b. rhodesiense</i> HAT | X | X | X |
| <i>T. brucei gambiense</i> HAT | X | X | X |
| Surra, <i>T. evansi</i> | X | X | NA |
| River blindness, <i>O. volvulus</i> | X | X | X |
| <i>T. cruzi</i> | X | | |
| <i>Leishmania</i> spp. | X | | |
| <i>P. falciparum</i> | X | | |
| Viral infections | | | |
| Hepatitis virus | X | X | X |
| AIDS, HIV | X | | X |
| Herpes simplex virus | X | X | |
| Chikungunya virus | X | X | |
| Enterovirus 71 | X | X | |
| Dengue virus | X | | |
| Zika virus | X | | |
| Ebola virus | X | | |
| Neoplastic diseases | | | |
| Non-small cell lung cancer | X | X | |
| Breast cancer | X | X | |
| Bladder cancer | X | X | |
| Brain tumors | X | X | |
| Prostate cancer | X | X | X |
| Other | | | |
| Snakebite | X | X | |
| Arthritis | X | X | |
| Autism | NA | X | X |

WHAT THEY FEAR MOST is that WE THE PEOPLE WILL RISE UP



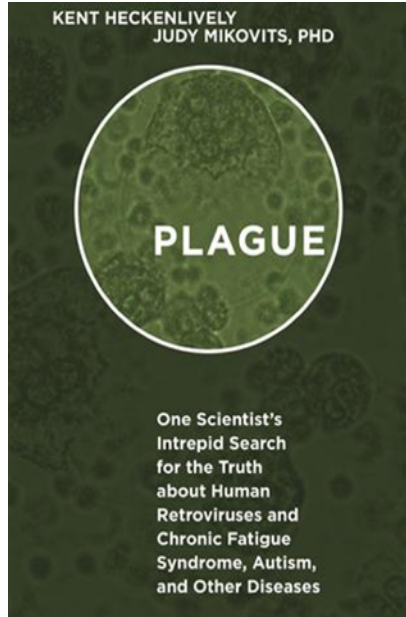
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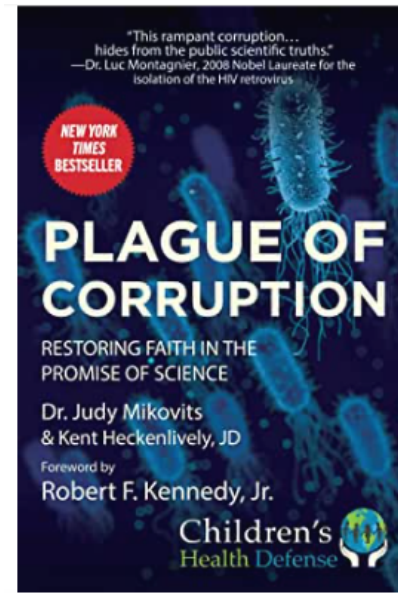
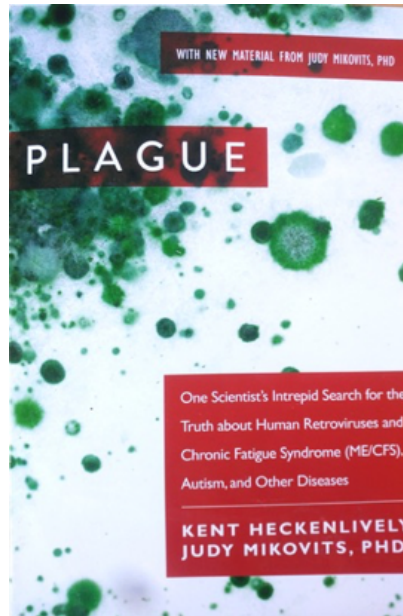
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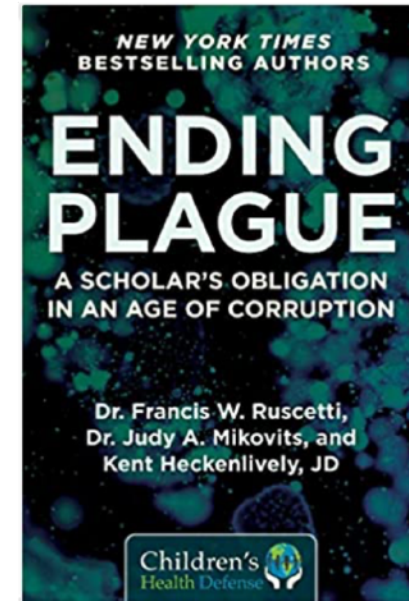
GOD's People are destroyed from lack of Knowledge (Hosea 4:6)
THE FEAR OF THE LORD is the Beginning of Knowledge (PROVERBS 1:7)



2014 (James 1:19-22) 2017



2020 (Psalm 91)



2021(Ephesians 5:11)

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'The great enemy of truth is very often not the lie – deliberate, contrived and dishonest – but the myth – persistent, persuasive and unrealistic. Too often we hold fast to the cliches of our forebears. We subject all facts to a prefabricated set of interpretations. We enjoy the comfort of opinion without the discomfort of thought'. John F. Kennedy, Commencement Address, Yale University, June 11, 1962