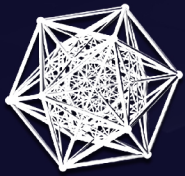


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# Entangled

MAGAZINE

VOLUME-44 JANUARY 2021

## COVID-19 AND THE AUTONOMIC NERVOUS SYSTEM



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## **First the Tares**

**By Kathleen M. Urquhart**

**I wasn't belaboring the passing of 2020 as many did. I found it to be an amazing year of revelation, confirmation, and answered prayers. God spoke! He appealed to his children. A clarion call went out from his Holy Spirit.**

### **Many Would Not Hear**

**Even with the world "going dark" in terms of its normal routines, social activities, theatrical distractions, and lost sporting events, the majority of professed Christians have not considered that this period of isolation is what we've repeatedly desired and asked of God. Have we not sought and cried out for a quiet place in this crazy world? A chance to step out of the daily "rat race" in order to spend more time with those we love?**

**This worldwide event can hold great opportunity if we see it as an ordained time for deep, spiritual introspection and contrition - to help comprehend life, perhaps for the first and last time, and how we live it. More importantly, we must discover who we live it for. This global incident could be the best thing that ever happened to us if it yields a heart (and harvest) of repentance and encourages us as individuals to seek God in spirit and truth.**

**The Bible, both old and new testaments, is replete with calls from God to repentance. Even “worldly” Wiki defines repentance as: *the activity of reviewing one’s actions and feeling regret for past wrongs, which is accompanied by commitment to and actual actions that show and prove a change for the better.***

**Without repentance, it is impossible to please God, to know him or his son, Jesus, both personally and as savior, or for his Holy Spirit to reside in you. Without humble acknowledgement of your failings (sins), you can’t know what scriptural truth is, and you’ll wind up with a subjective, general, shallow, and widely-accepted understanding/view of what a “god” is, but you’ll not know WHO he is or the power he holds over your life. That understanding can only come when you submit, seek, and commit to know him and his ways. What this knowledge and understanding ultimately requires of you is CHANGE.**

**1 John 2:4**

***He that saith, I know him, and keepeth not his commandments, is a liar, and the truth is not in him.***

***Jesus told them another parable: The kingdom of heaven is like a man who sowed good seed in his field. But while everyone was sleeping, his enemy came and sowed weeds among the wheat, and went away. When the wheat sprouted and formed heads, then the weeds also appeared. The owner's servants came to him and said, "Sir, didn't you sow good seed in your field? Where then did the weeds come from?" "An enemy did this," he replied. The servants asked him, "Do you want us to go and pull them up?" "No," he answered, "because while you are pulling the weeds, you may root up the wheat with them. Let both grow together until the harvest. At that time I will tell the harvesters: First collect the weeds and tie them in bundles to be burned; then gather the wheat and bring it into my barn"***

***(Matt. 13:24-30)***

There is a difference, even if slight at first glance, between wheat and tares – but if you know what to look for, it is discernable. Countless sermons can be found on this one parable in scripture. I'll not launch into another. What caught my attention was the mandate to *"FIRST collect the weeds (tares) and tie them into bundles to be burned."*

It may help to have the explanation of the above parable be translated for our understanding by Jesus, himself:

*His disciples came to him and said, "Explain to us the parable of the weeds in the field." Jesus answered, "The one who sowed the good seed is the Son of Man. The field is the world, and the good seed stands for the sons of the kingdom. The weeds are the sons of the evil one, and the enemy who sows them is the devil. The harvest is the end of the age, and the harvesters are angels. As the weeds are pulled up and burned in the fire, so it will be at the end of the age. The Son of Man will send out his angels, and they will weed out of his kingdom everything that causes sin and all who do evil. They will throw them into the fiery furnace, where there will be weeping and gnashing of teeth. Then the righteous will shine like the sun in the kingdom of their Father.*

*He who has ears let him hear"*

*(Matt. 13:36-43)*

Today, satan thinks he's weeding out God's children for destruction, but it is the other way around (yes, the "180" view again). The long-awaited mark of the technological beast system is here. It is operational and currently being deployed. It appears that the ultimate "Game of Thrones" is underway. Who are some of the first people lining up to take this vaccine? Self-professed Christians and unbelievers/atheists.

***Matt. 13:30***

**30 Let both grow together until the harvest: and in the time of harvest I will say to the reapers, Gather ye together first the tares, and bind them in bundles to burn them: but gather the wheat into my barn.**

The time of the harvest is upon us. I was reading that a “harvest” typically takes 5-7 weeks to bring in. God’s timing is different. But it is safe to say that it is here since a division is currently taking place...those who will take this inoculation in order to return to the illusive “normal” and those who see this as the defining moment God has called his creation to.

### **Choose Whom You Will Serve**

**14 Joshua 24:14-15**

***“Now therefore fear the Lord and serve him in sincerity and in faithfulness. Put away the gods that your fathers served beyond the River and in Egypt, and serve the Lord. 15 And if it is evil in your eyes to serve the Lord, choose this day whom you will serve, whether the gods your fathers served in the region beyond the River, or the gods of the Amorites in whose land you dwell. But as for me and my house, we will serve the Lord.”***

Evangelical pastors, priests, rabbis, and religious leaders all over the world are telling their congregations that this final solution is a “gift” from god. To not take it is selfish and “ungodly.” The truth is that this mRNA vaccine, never before used in human trials, once injected into the human body, establishes a replication process that cannot be stopped and triggers unknown, permanent changes to the human genome. The “temple of the Holy Spirit”, the human body, will be rendered permanently altered, desolate, and without God. He will no longer recognize this demonically inspired “new creation” (solution) instituted by satan.

**You see, DNA defines you. It contains everything about YOU – it is your “name” so-to-speak and defines who you ARE according to God’s design and image. Once it is synthetically altered, that “name” cannot be located or recognized by God. Using satan’s computer analogies, it’s like a web link that has been disabled or mis-keyed and the computer can’t read it or bring you to the site you want to see – a mailer daemon is returned to your email saying, “Failed Delivery.”**

**God knows his own design. He knows who is “wheat” – the *good seeds of his kingdom* and those who are his, and he will gather them into his sanctuary (barn...). The tares, those who acquire a basic/general, worldly understanding of what a “god” is – well, they are the “FIRST” weeds to be gathered in. The first to take the vaccine front-loaded with biological technology inextricably entangling them in satan’s systemic plans for this world. They meet with the prophesied results and get burnt in the end.**

**This is not your typical “take” on the wheat and the tares. Nothing God is revealing today is in the manner we thought it at first. I praise his Holy Spirit for his great insights and mighty ways of revealing to this generation the plans of our enemy, the devil, and God's own unique plans for good. I praise God, Jesus, and the Holy Spirit for constantly revealing the power to overcome.**

**Keep praying for your loved ones. Share as often as you can. If we are able to at least place some doubt in the minds of our beloved friends and family, maybe they will seek God for answers themselves and come into the understanding of what is really taking place.**

**Remain steadfast and faithful!**

**Love,**

**Kathleen**

In 2019, a new coronavirus was identified as the cause of a disease outbreak that originated in China. The virus is now known as the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease it causes is called coronavirus disease 2019 (COVID-19).

In December 2020, we published in this magazine a gain of function analysis of 18 genomic fragments of HIV-1 inserted within the overall RNA genomic sequence of SARS-CoV-2.

Now, recent peer reviewed research findings published on December 13, 2020 indicate yet another aspect to the gain of function of SARS-CoV-2.

### **Nicotinic cholinergic system and COVID-19: In silico evaluation of nicotinic acetylcholine receptor agonists as potential therapeutic interventions**

Nikolaos Alexandrisa, George Lagoumintzisa, Christos T.Chasapisa, Demetres D.Leonidas, Georgios E.Papadopoulos, Socrates J.Tzartos, Aristidis Tsatsakise, Elias Eliopoulos, Konstantinos Poulasa, Konstantinos

<https://doi.org/10.1016/j.toxrep.2020.12.013>

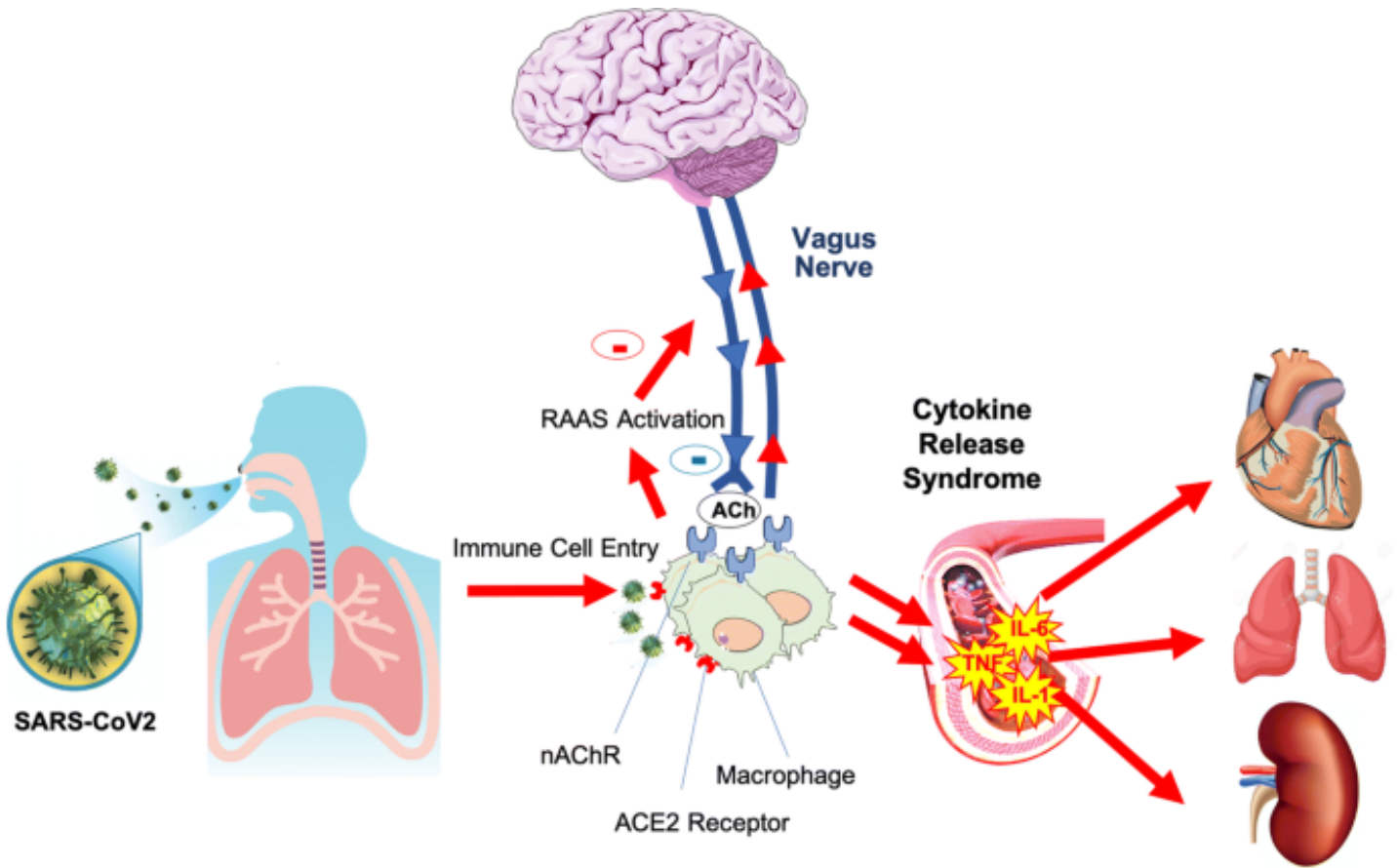


#### **Excerpts:**

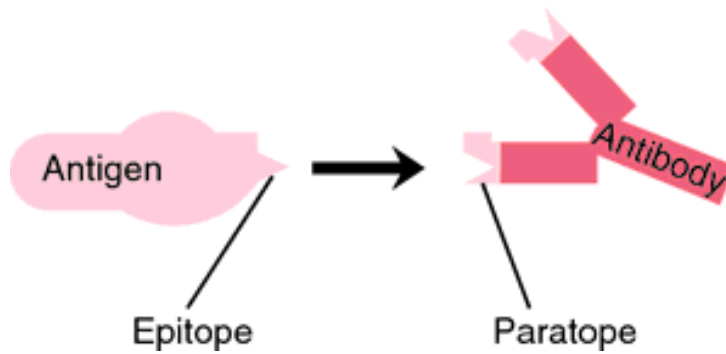
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***Molecular modeling revealed that the SARS-CoV-2 Spike glycoprotein might bind to nicotinic acetylcholine receptors (nAChRs) through a cryptic epitope homologous to snake toxins, substrates well documented and known for their affinity to the nAChRs. This binding model could provide logical explanations for the acute inflammatory disorder in patients with COVID-19, which may be linked to severe dysregulation of NCS.***

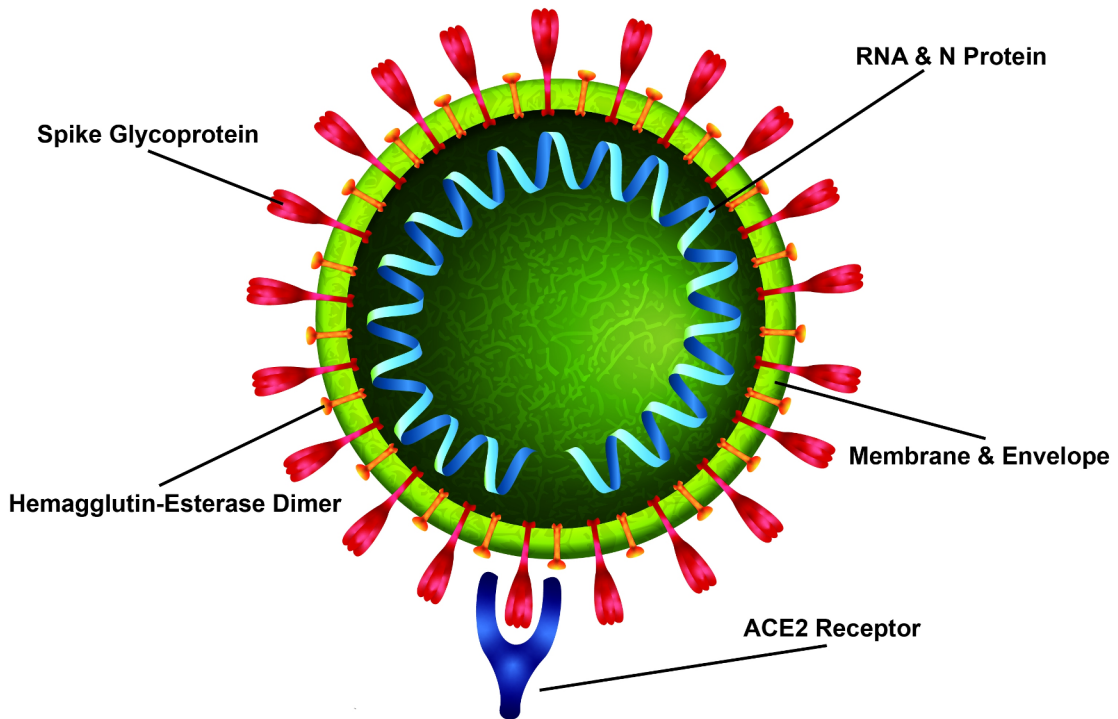




***Nicotinic Cholinergic anti-inflammatory system  
and the autonomic nervous system***

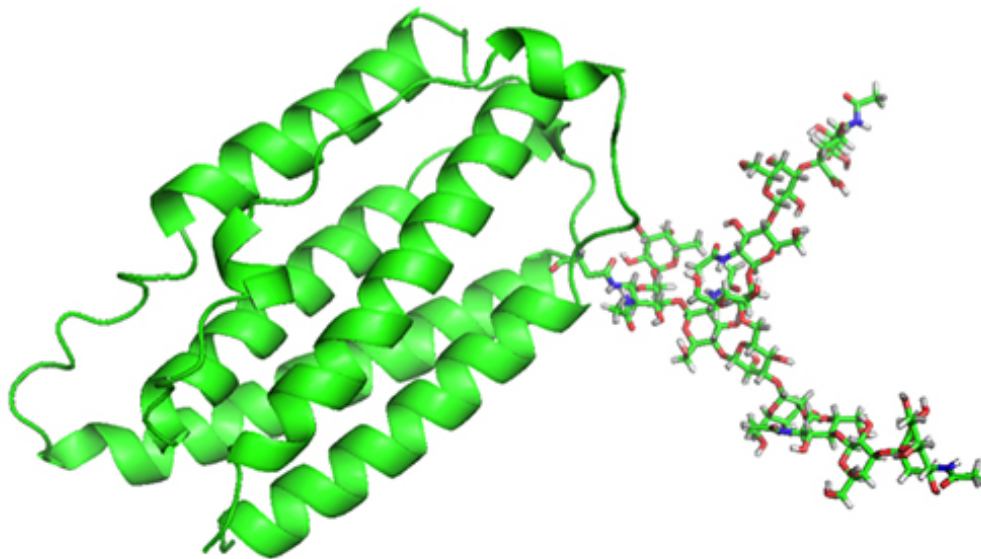


**Epitope binding site of Antigen to Antibody  
in the human immune system**



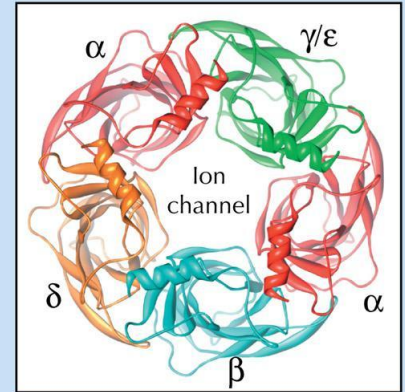
*SARS-CoV-2 Spike glycoprotein*

# GLYCOPROTEIN

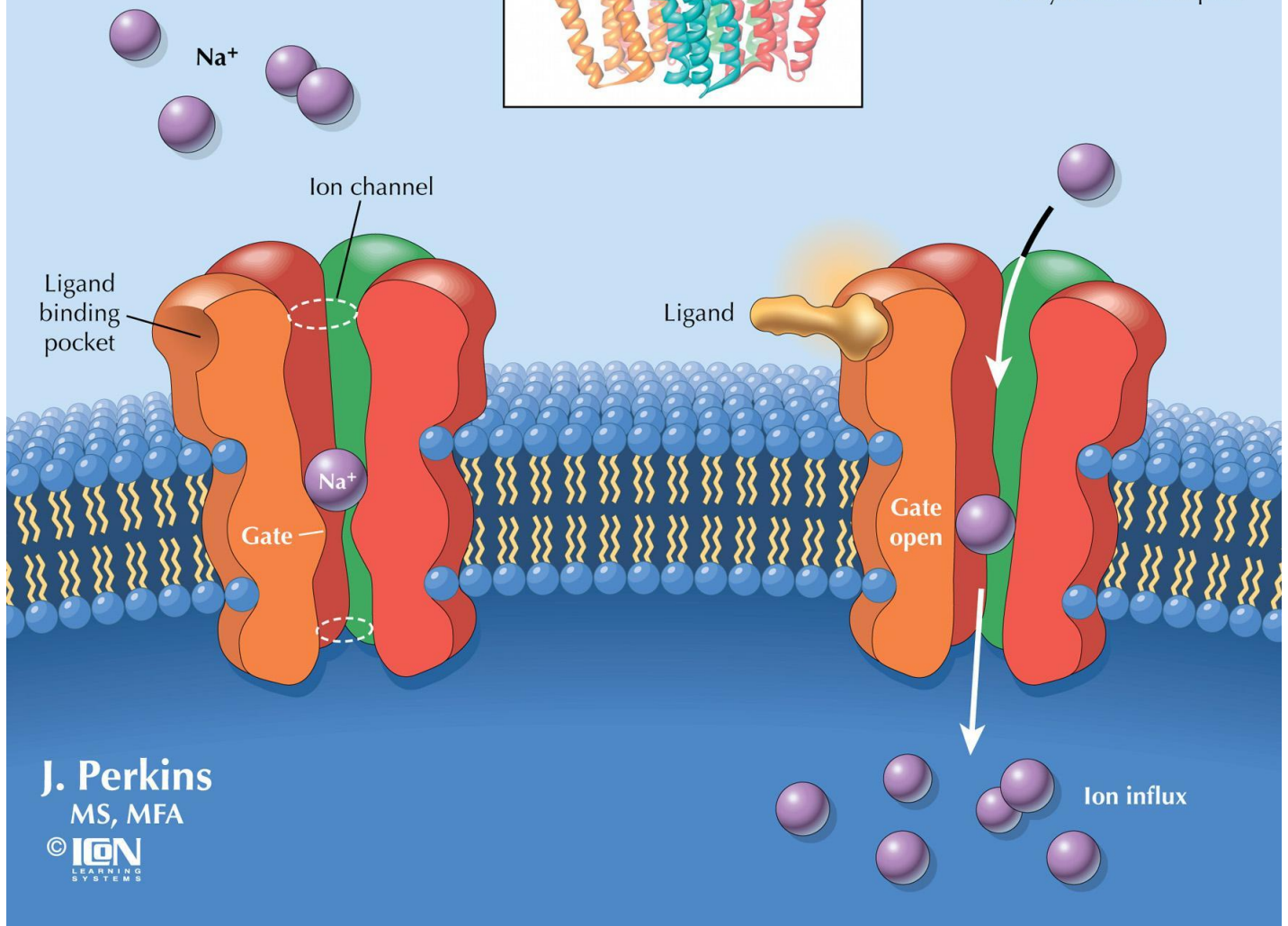


An example of a ligand-gated ion channel.  
Ribbon model of nicotinic acetylcholine receptor viewed from the side.

The receptor is composed of five subunits:  
2 alpha, 1 beta, 1 delta, and either  
a gamma or epsilon.



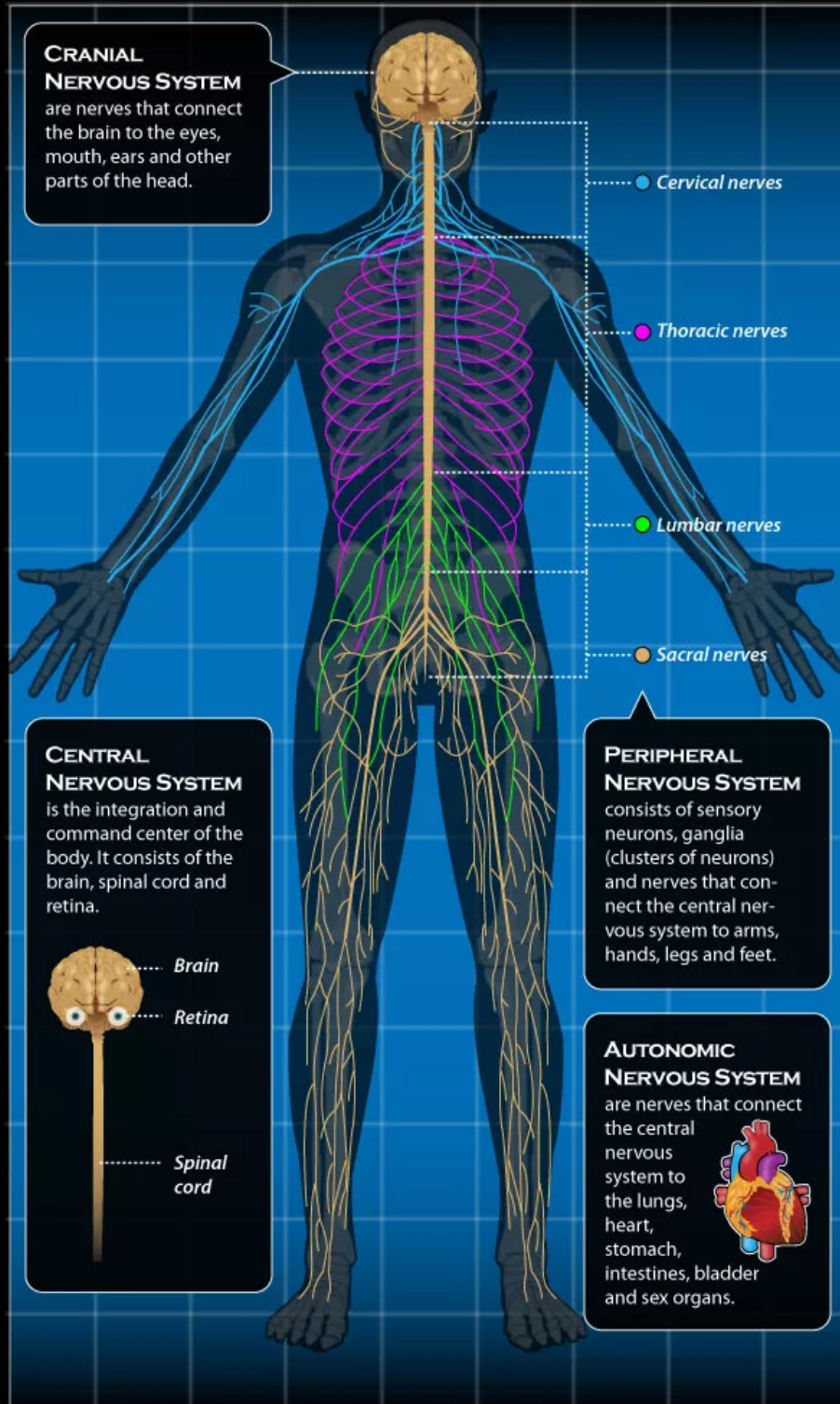
Extracellular ("top") view of acetylcholine receptor.



## Nicotinic Acetylcholine Receptors

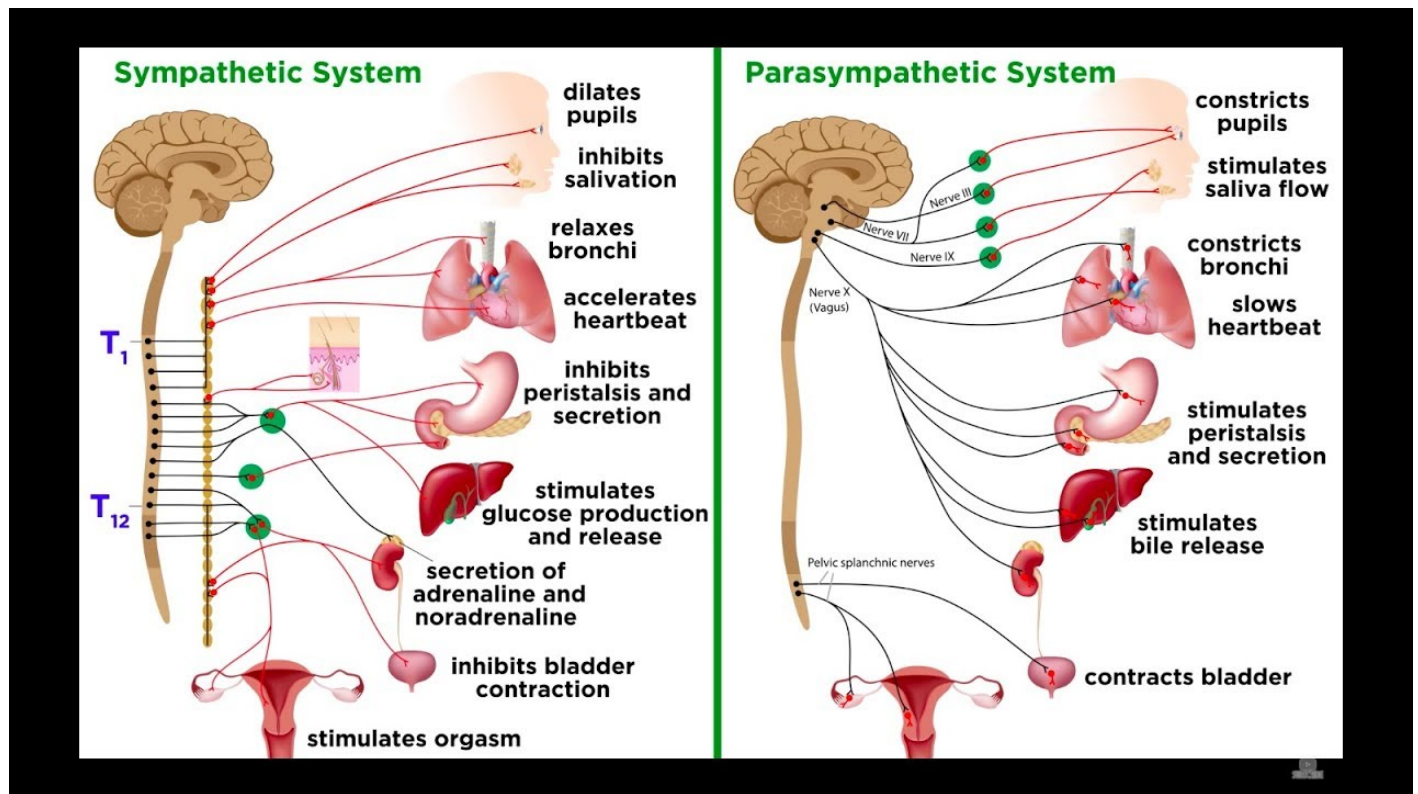
# NERVOUS SYSTEM

The nervous system, essentially the body's electrical wiring, is a complex collection of nerves and specialized cells known as neurons that transmit signals between different parts of the body. Vertebrates, animals with backbones and spinal columns, have central and peripheral nervous systems.



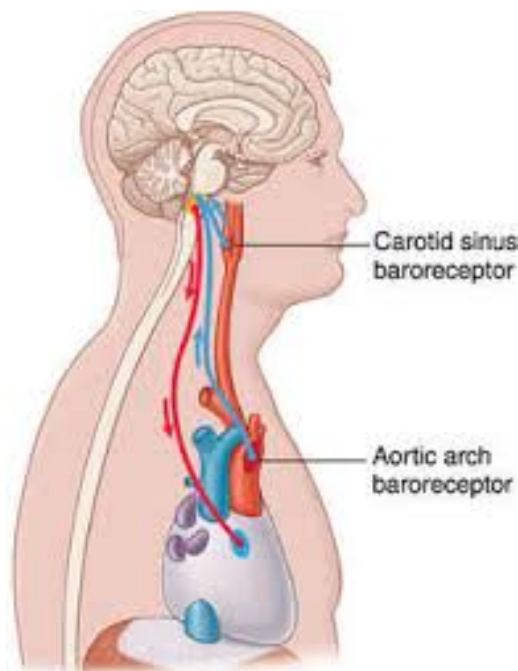
Overall, this additional gain of function of COVID-19 manifests as a disruption to the human autonomic nervous system (ANS), specifically the sympathetic and parasympathetic branches.

One of the more familiar is the manifestation of the acute inflammatory disorder known as the cytokine storm resulting from the abnormal regulation of the Nicotinic Cholinergic anti-inflammatory system (NCS). (This will be explained further on.)



Typically with disruption to the NCS, there are cardiovascular complications present with myocardial (muscle tissue of the heart) injury, development of cardiomyopathy (enlarged, thick or rigid heart muscle) without respiratory symptoms, and unspecified arrhythmia (abnormal heart beat) contributing to mortality.

Attendant effects present as the inability to think clearly, referred to as "brain fog", along with disruption of the major organs and small and large intestines. Mental effects are indicators of disruption of the baroreceptors, a type of mechanical receptor sensory neuron that are excited by the stretching (or relaxation) of a blood vessel. Increase in the pressure of blood within a vessel triggers signals sent to the central nervous system. This sensory information is used by the autonomic nervous system, influencing the heart's cardiac output. Baroreceptors are located in the carotid sinus and the aortic arch. Sensing blood pressure, they relay information to the brain to maintain a proper blood pressure.



While not cited by Nikolaos Alexandrisa, et al. in their study of the disruption to the Nicotinic cholinergic system (NCS), it does appear to contribute to the symptoms of a closely related disorder known as Postural orthostatic tachycardia syndrome (POTS). There may also be a cross-correlation to what is referred to as "long haulers syndrome" specifically related to Covid-19.

## Postural orthostatic tachycardia syndrome (POTS)

Postural orthostatic tachycardia syndrome (POTS) is a disorder that can make someone feel faint or dizzy. It happens when the autonomic nervous system (ANS) doesn't work as it should. The autonomic nervous system is the body's "autopilot" system, controlling things like heart rate, blood pressure, and breathing.

The autonomic nervous system keeps blood pressure at the right level for the brain no matter what position a person is in — standing (vertical), lying flat on the back (called supine), and sitting or reclining (called recumbent).

# POTS: A Look Beneath The Surface

She looks fine, but here's what she could be experiencing if she has postural orthostatic tachycardia syndrome (POTS).

reduced brain blood flow  
trouble concentrating  
lightheadedness  
fainting  
migraines  
altered sleep phases  
abnormally dilated pupils  
sensitivity to light  
esophageal dysmotility  
nausea/bloating  
diarrhea/constipation  
peripheral neuropathy  
blood pooling in the limbs

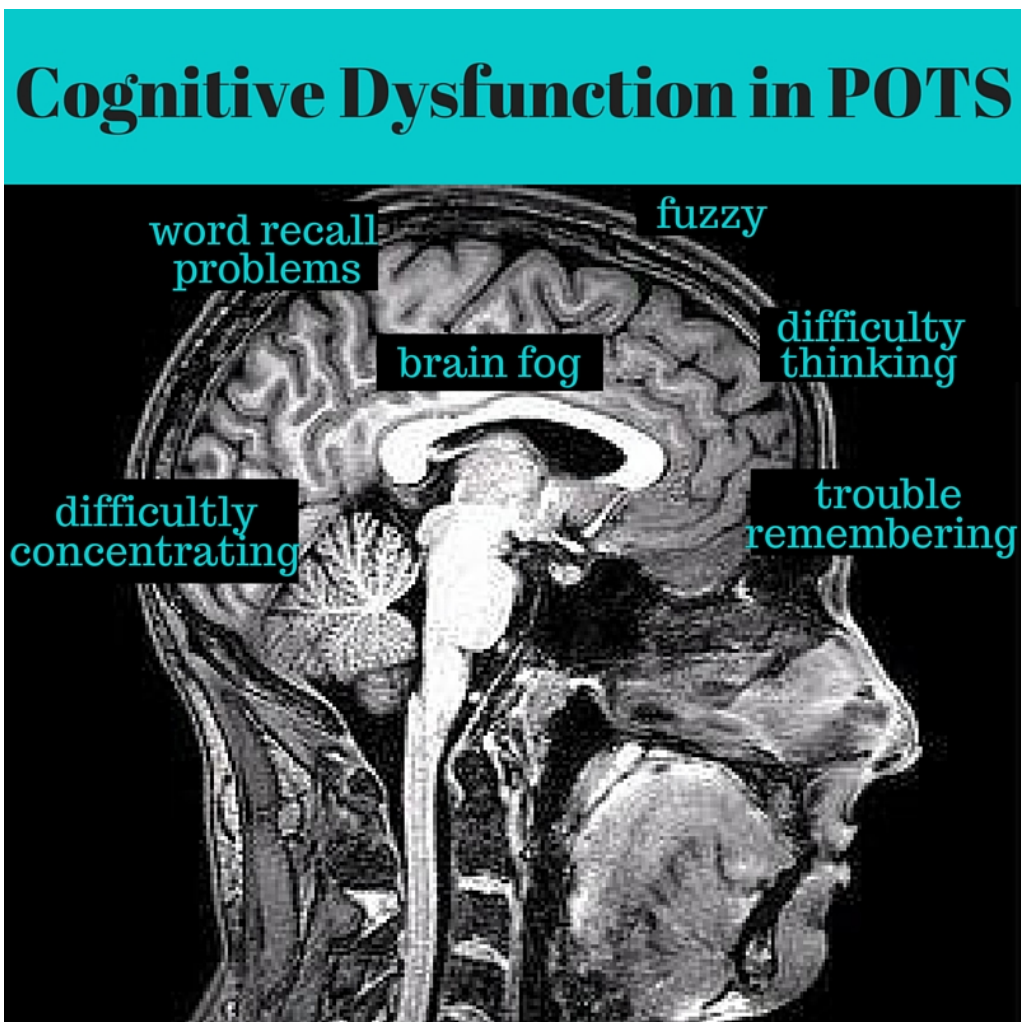


vertigo (dizziness)  
sensitivity to noise  
tachycardia (fast heart rate)  
chest pain  
shortness of breath  
profound fatigue  
iron storage deficiency  
low blood volume  
muscle weakness  
bladder problems  
reduced ability to sweat  
heat/cold sensitivity  
and more...

[www.dysautonomiainternational.org/POTS](http://www.dysautonomiainternational.org/POTS)



Usually when a person stands, the nerves of the autonomic nervous system tell blood vessels in the lower body to constrict (tighten). The tightening vessels work against gravity to keep blood from collecting in the legs. This automatic response makes sure the brain has enough blood flow to work well. If there is not enough blood flow to the brain, a person may feel lightheaded or pass out every time they stand, and may also be described as "brain fog".



POTS might first be noticed after a viral infection or an injury. But it's hard to tell if one of these caused POTS or just happened around the same time that POTS became a problem.



**In POTS, the autonomic nervous system tries to keep enough blood flowing to the brain by increasing the heart rate (tachycardia).**

**POTS include:**

- **heart palpitations (feeling the heart beat or race)**
- **instability (feeling like one is about to fall)**
- **lightheadedness (almost passing out; vision tunnels or goes gray or dark)**
- **dizziness**
- **passing out (fainting)**
- **feeling tired**
- **chest pain**
- **trouble getting enough breath**
- **cold or painful extremities**
- **nausea**
- **problems exercising**
- **redness or purple coloring in the lower legs**
- **shaking**

**POTS symptoms that may happen without standing:**

- **headache**
- **sweating without a cause (such as exercise or warm weather)**
- **trouble concentrating ("brain fog")**
- **trouble sleeping or unable to sleep (insomnia)**
- **weakness**

**POTS causes a heart rate increase of 40 or more beats per minute within 10 minutes of when someone moves from a supine (lying down) position to a standing one. The heart rate goes up dramatically, with little if any drop in blood pressure. Doctors can measure this easily.**

**Sometimes, doctors do a "tilt-table test." In this test, a person is strapped to a table, then tilted from a supine (lying on the back) position into a standing position while heart rate and blood pressure are monitored.**



**Doctors also make sure the problem isn't due to anything besides the autonomic nervous system. Depending on the symptoms, tests might be done on other parts of the body. These might check the blood, heart, brain, eyes, ears, kidneys, muscles, nerves, hormones, digestive tract, and more. Typically, a diagnosis of POTS is confirmed when symptoms have lasted for several months and no other causes are found.**

**The autonomic nervous system is involved in many body functions, so managing all the symptoms related to it can be hard. Sometimes, patients try a few different treatments to find what works well without unpleasant side effects. Multiple doctor's visits may be needed to find the best combination of treatments that improve symptoms.**

## "Long Haulers" Syndrome

A "long hauler" is someone who still hasn't fully recovered from COVID-19 weeks or even months after symptoms first arose. Many describe their most debilitating persistent symptom as impaired memory and concentration, often with extreme fatigue.

**long-hauler**  
long hauler [lawng-haw-ler]

---

A person who suffers from symptoms of COVID-19 for longer than two weeks, and generally for several months.

The first severe acute respiratory syndrome (SARS), which emerged in 2002 and was also caused by a coronavirus. Some people who were hospitalized with SARS still had impaired lung function 2 years after their symptoms began,

Adults with severe illness who spend weeks in intensive care, often intubated, can experience long-lasting symptoms, but that's not unique to patients with COVID-19. What's unusual about the long haulers is that many initially had mild to moderate symptoms that didn't require lengthy hospitalization—if any—let alone intensive care.



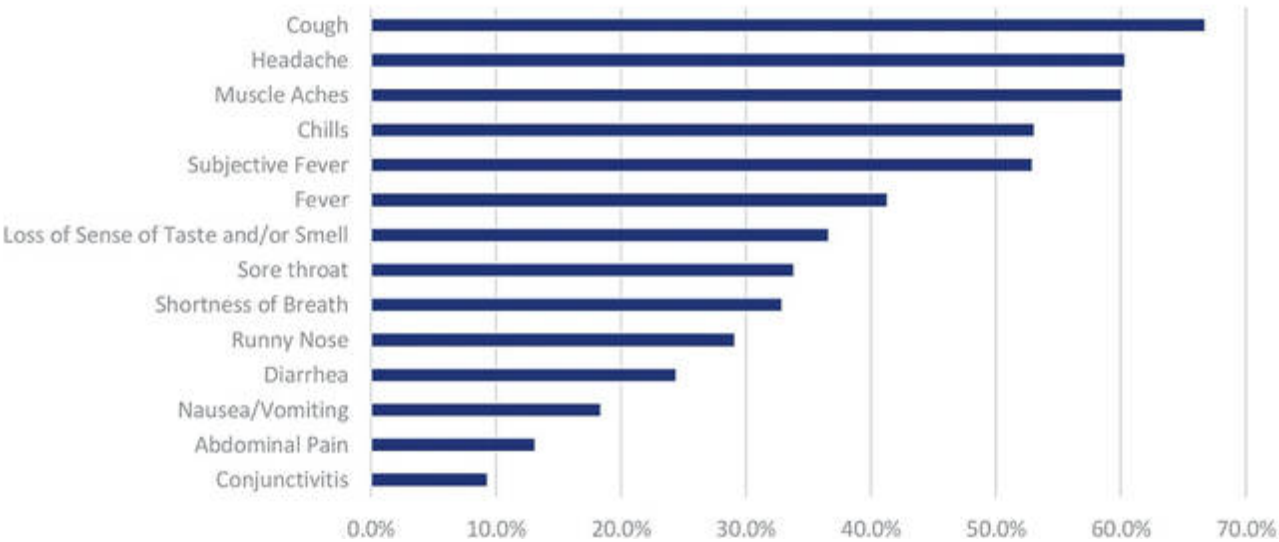
More than a third of the adults hadn't returned to their usual state of health 2 to 3 weeks after testing positive, as reported in a *Morbidity and Mortality Weekly Report*. The older the patients, the more likely they were to say they their pre-COVID-19 health hadn't come back. But even a quarter of the youngest, those aged 18 to 34 years, said they had not yet regained their health.

The suspicion is that severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection triggers long-lasting changes in the immune system. In some organs, especially the lungs, those changes persist far past the point at which patients have stopped shedding the virus.

Just as acute COVID-19 has been found to affect every part of the body, so, apparently, do its persistent symptoms.

Many patients report 40 days following diagnosis, ongoing fatigue, chills and sweats, body aches, headaches, brain fog, and gastrointestinal issues. Some people have reported feeling better for days or weeks before relapsing with old or new symptoms.

PERCENT OF CASES WITH SYMPTOM



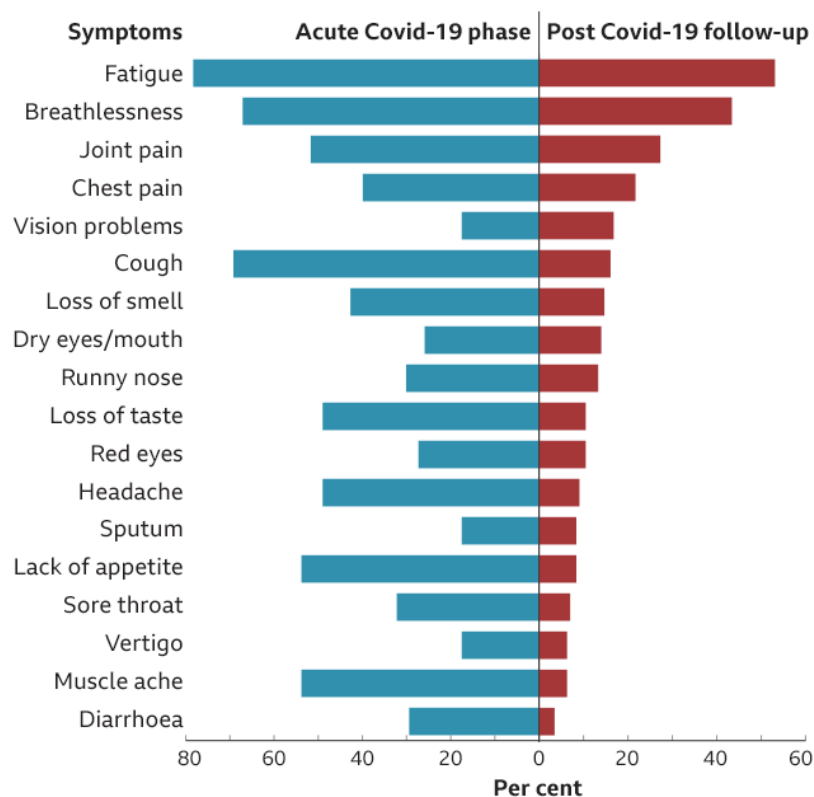
Fatigue appears as the most common of the top 50 symptoms experienced by most long haulers, followed by muscle or body aches, shortness of breath or difficulty breathing, and difficulty concentrating. Cough is also one of the most persistent symptoms. Many patients are sick for 4 or 5 months. Besides the persistent cough, is loss of taste, and odd smells like that of fish, or burning lingers for many long haulers.

Many patients continue experiencing shortness of breath. This could be due to the deconditioning seen with any lengthy illness, or to infection-specific conditions, such as postviral reactive airways disease, lung fibrosis, or viral myocarditis.

Other long haulers describe their most debilitating persistent symptom as impaired memory and concentration, often with extreme fatigue.

### Persistent symptoms in Covid-19 patients

Patients followed up on average 60 days after first symptoms\*



\*143 patients assessed in Rome in April and May 2020

Source: Jama/Carfi, Bernabei, Landi et al



Typical symptoms have also included oxygen saturation levels as low as 88% and 8-to-10-minute tachycardia episodes with heart rates ranging from 115 to 135 beats per minute at least once a day and leaving patients breathless, even while seated.

Researchers point to autonomic nervous system dysregulation as the possible explanation for long-haulers' tachycardia, extreme fatigue, and other persistent symptoms. The system controls involuntary physiologic processes such as heart rate, blood pressure, respiration, and digestion.

**TABLE**

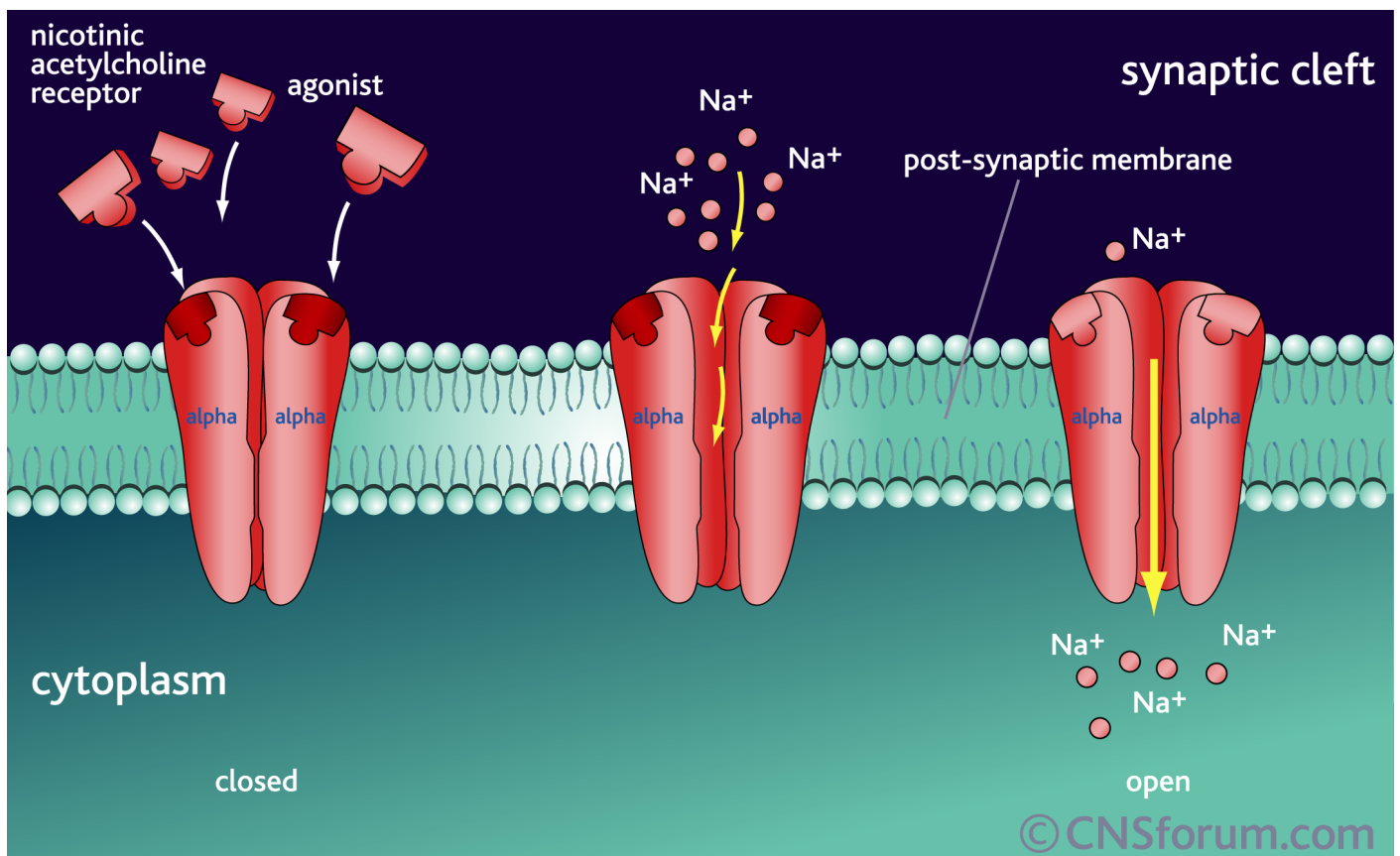
**Conditions associated  
with autonomic dysfunction<sup>1</sup>**

- Alcoholism/alcoholic neuropathy
- Amyloidosis
- Botulism
- Cerebral infarcts
- Diabetes mellitus
- Guillain-Barré syndrome
- Huntington's disease
- Multiple sclerosis
- Multiple systems atrophy
- Parkinson's disease
- Porphyria
- Postural orthostatic tachycardia syndrome
- Primary hyperhidrosis
- Pure autonomic failure
- Reflex sympathetic dystrophy
- Spinal cord lesions
- Toxic neuropathies
- Tumors, paraneoplastic neuropathies

Noteworthy, again one of the most common symptoms of POTS is "brain fog", also found in cases of long haulers syndrome. It's not clearly related to blood flow to the brain. It's something else. Quite possibly the nicotinic cholinergic system and COVID-19.

## Nicotinic acetylcholine receptors (nAChRs)

Nicotinic acetylcholine receptors (nAChRs) are receptor polypeptides that respond to the neurotransmitter acetylcholine. Nicotinic (relating to, resembling, producing, or mediating the effects produced by nicotine on nerve fibers at autonomic ganglia and at the neuromuscular junctions of voluntary muscles) receptors also respond to drugs such as the agonist nicotine.

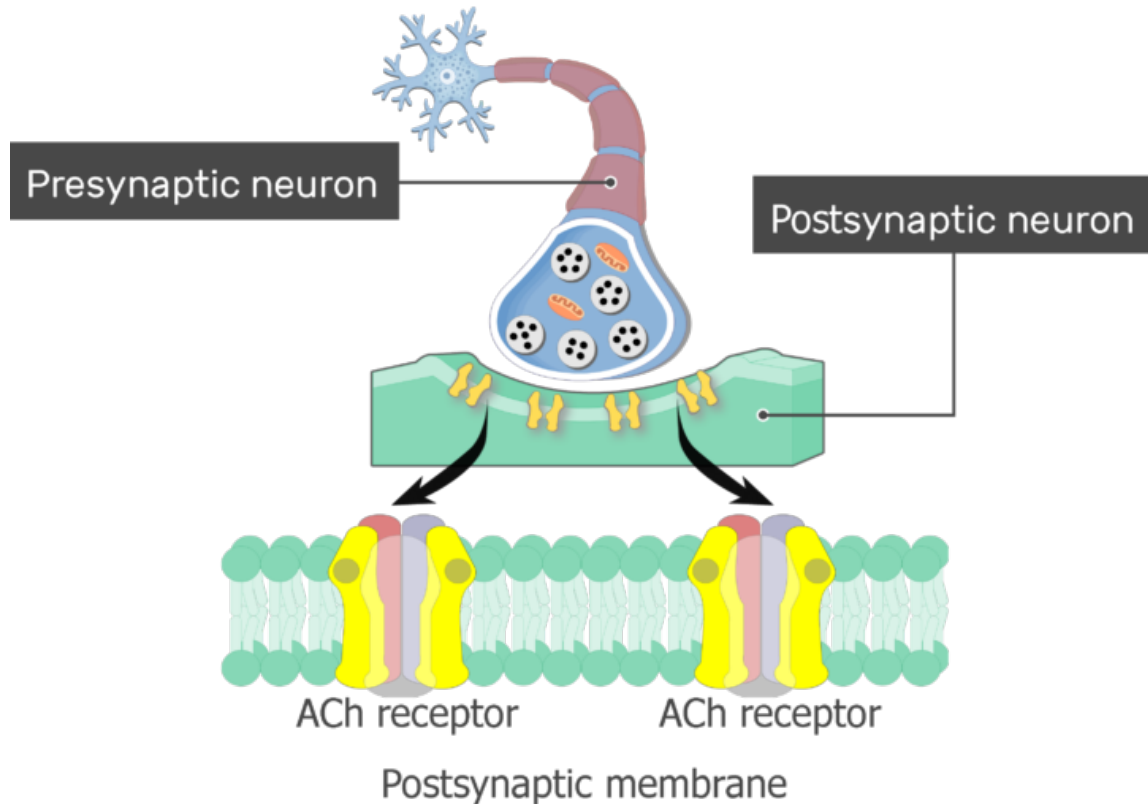


An agonist is a chemical that binds to a receptor and activates the receptor to produce a biological response. In contrast, an antagonist blocks the action of the agonist, while an inverse agonist causes an action opposite to that of the agonist.



The nAChRs (receptors) are found in the central and peripheral nervous system, muscle, and many other tissues of many organisms. At the neuromuscular junction they are the primary receptor in muscle for motor nerve-muscle communication that controls muscle contraction. In the peripheral nervous system: (1) they transmit outgoing signals from the presynaptic to the postsynaptic cells within the sympathetic and parasympathetic nervous system, and (2) they are the receptors found on skeletal muscle that receive the neurotransmitter acetylcholine released to signal for muscular contraction.

I



In the immune system, nAChRs regulate inflammatory processes and signal through distinct intracellular pathways.

## Nicotinic cholinergic system and COVID-19: In silico evaluation of nicotinic acetylcholine receptor agonists as potential therapeutic interventions - Nikolaos Alexandrisa, et al.

Excerpts:



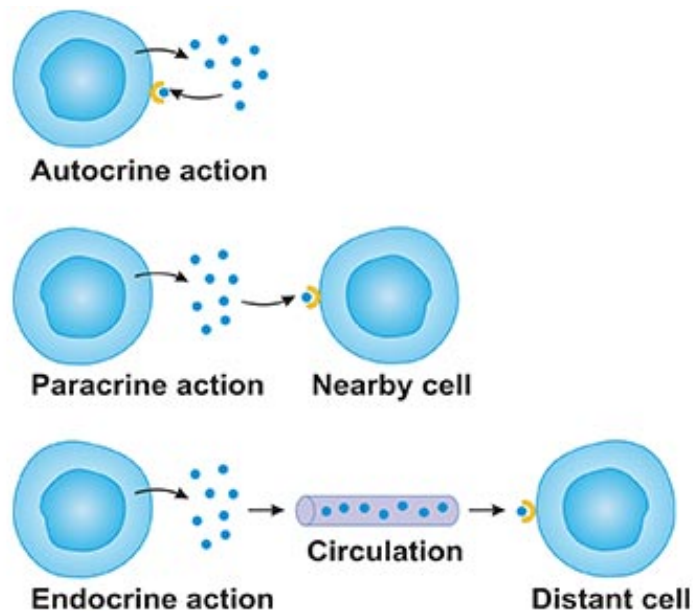
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***Molecular modeling revealed that the SARS-CoV-2 Spike glycoprotein might bind to nicotinic acetylcholine receptors (nAChRs) through a cryptic epitope homologous to snake toxins, substrates well documented and known for their affinity to the nAChRs. This binding model could provide logical explanations for the acute inflammatory disorder in patients with COVID-19, which may be linked to severe dysregulation of NCS.***

Breaking this down, what we are seeing is a disruption of the anti-inflammatory system of the immune system. Typically, this disruption manifests as a cytokine storm.

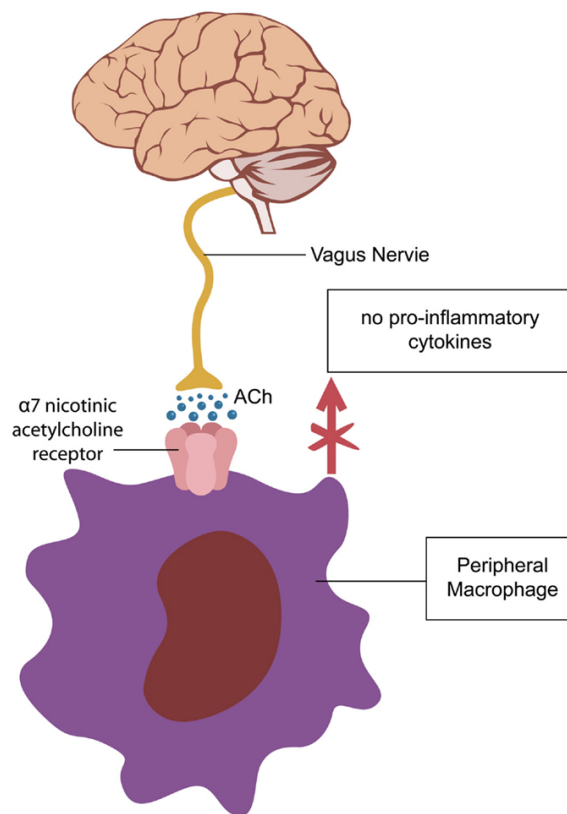


**Cytokines are a broad and loose category of small proteins important in cell signaling. Cytokines are peptides and cannot cross the lipid bilayer of cells to enter the cytoplasm. Cytokines have been shown to be involved in autocrine, paracrine and endocrine signaling as immunomodulating agents.**



**Inflammation involves a set of biologic mechanisms in multicellular organisms to contain invasive pathogens and resolve injuries by activating innate and adaptive immune responses. The immune system is expected to recognize foreign invaders, respond proportionally to the pathogen burden, and then return to homeostasis (a stable equilibrium between interdependent elements). This response requires a balance between sufficient cytokine production to eliminate the pathogen and avoidance of a hyperinflammatory response in which an overabundance of cytokines causes clinically significant collateral damage.**

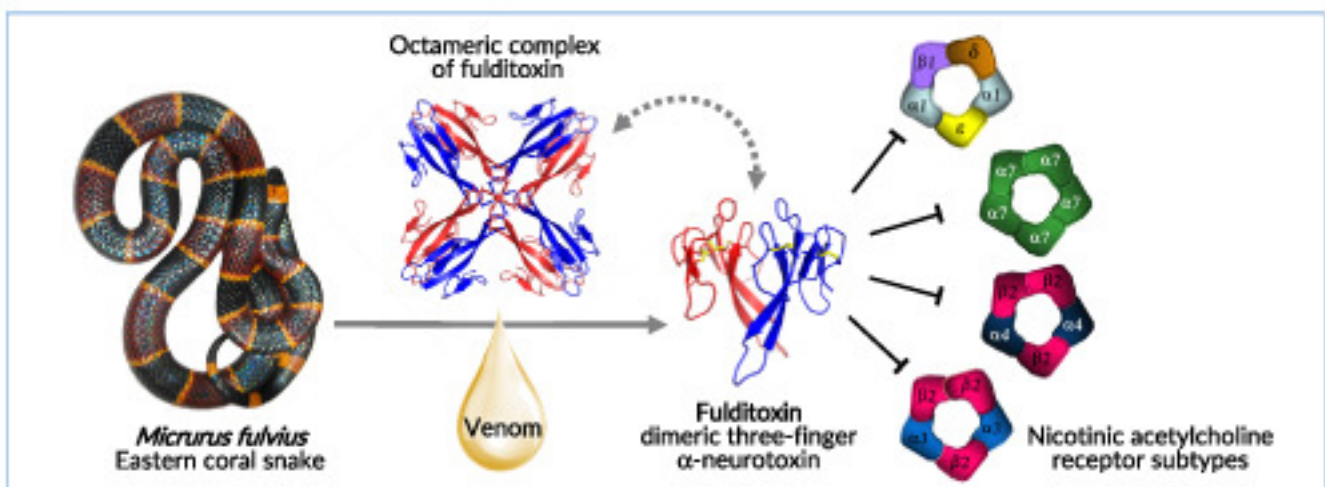
The acute inflammatory disorder, the cytokine storm in patients with COVID-19, may be linked to severe dysregulation of Nicotinic Cholinergic System (NCS). The cholinergic (a substance is cholinergic if it is capable of producing, altering, or releasing acetylcholine mimicking their behaviors at one or more of the body's acetylcholine receptors) anti-inflammatory pathway, a nervous system-based, rapid, and locally acting mechanism, can inhibit the cytokine response. Signals transmitted via the vagus nerve converge on the cytokine-producing cells that express the nicotinic acetylcholine receptor alpha 7 (nAChR alpha 7, or  $\alpha 7$ ).



This cholinergic anti-inflammatory pathway is mediated primarily by nicotinic acetylcholine cholinergic receptors (nAChRs) expressed upon tissue macrophages and blood monocytes. Thus, nAChRs can interact specifically with macrophage alpha7 subunits of nicotinic nAChRs receptors, leading to cellular deactivation and inhibition of cytokine release.

Molecular modeling revealed that the SARS-CoV-2 Spike glycoprotein might bind to nicotinic acetylcholine receptors (nAChRs) through a cryptic epitope (the part of an antigen [a molecule that may be present on the outside of a pathogen/virus] that is recognized by the immune system, specifically by antibodies) homologous (similarity due to shared ancestry between a pair of structures or genes) to snake toxins, substrates well documented and known for their affinity to the nAChRs.

## Fulditoxin inhibits nicotinic acetylcholine receptors



Foo, et al. *Br. J. Pharmacol.*



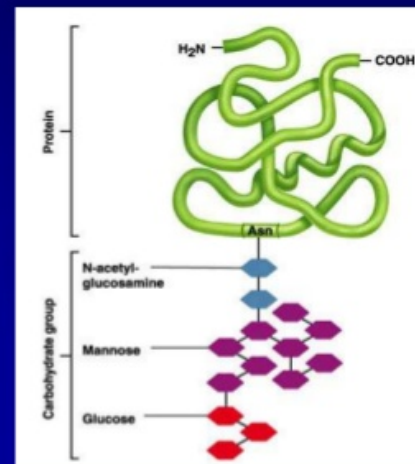
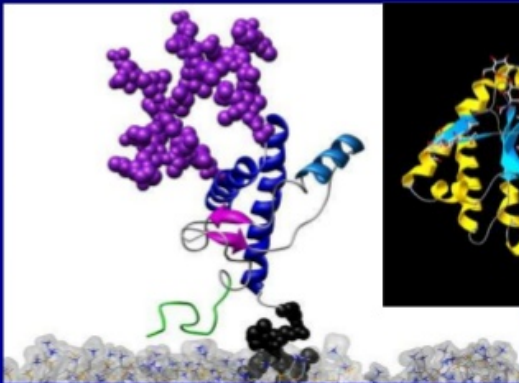
This binding model could provide logical explanations for the acute inflammatory disorder, the cytokine storm, in patients with COVID-19, which may be linked to severe dysregulation of Nicotinic cholinergic (acetylcholine) system (NCS).

## SARS-CoV-2 Spike glycoprotein

Like other coronaviruses, the SARS-CoV-2 genome encodes spike (S) glycoproteins, which protrude from the surface of mature cells. The surface location of the S glycoprotein renders it a direct target for host immune responses, making it the main target of neutralizing antibodies.

### Glycosylation of Proteins in Cell Culture

- Carbohydrates (glycans) are attached to proteins as co-translational and post-translational modifications (glycosylation)




Glycoproteins are proteins which contain oligosaccharide (a carbohydrate whose molecules are composed of a relatively small number of monosaccharide units) chains covalently bound (a chemical bond that involves the sharing of electron pairs between atoms) to amino acid side-chains. The carbohydrate is attached to the protein in a cotranslational or posttranslational modification (a signal sequence on a growing protein will bind with a signal recognition particle. This slows protein synthesis). This process is known as glycosylation. Secreted extracellular proteins are often glycosylated.

Like snake toxins, *in silico* (meaning performed on a computer or via a computer simulation in reference to biological experiments) molecular modeling indicates the SARS-CoV-2 Spike glycoprotein is binding to the same hidden receptor sites (epitopes) as do snake toxins. The nicotinic acetylcholine receptors (nAChRs).

Thus it can be inferred, the design for the artificial genomic coding of the Spike glycoprotein blocking the nAChRs was modelled after the genomic coding of toxic snake venoms.

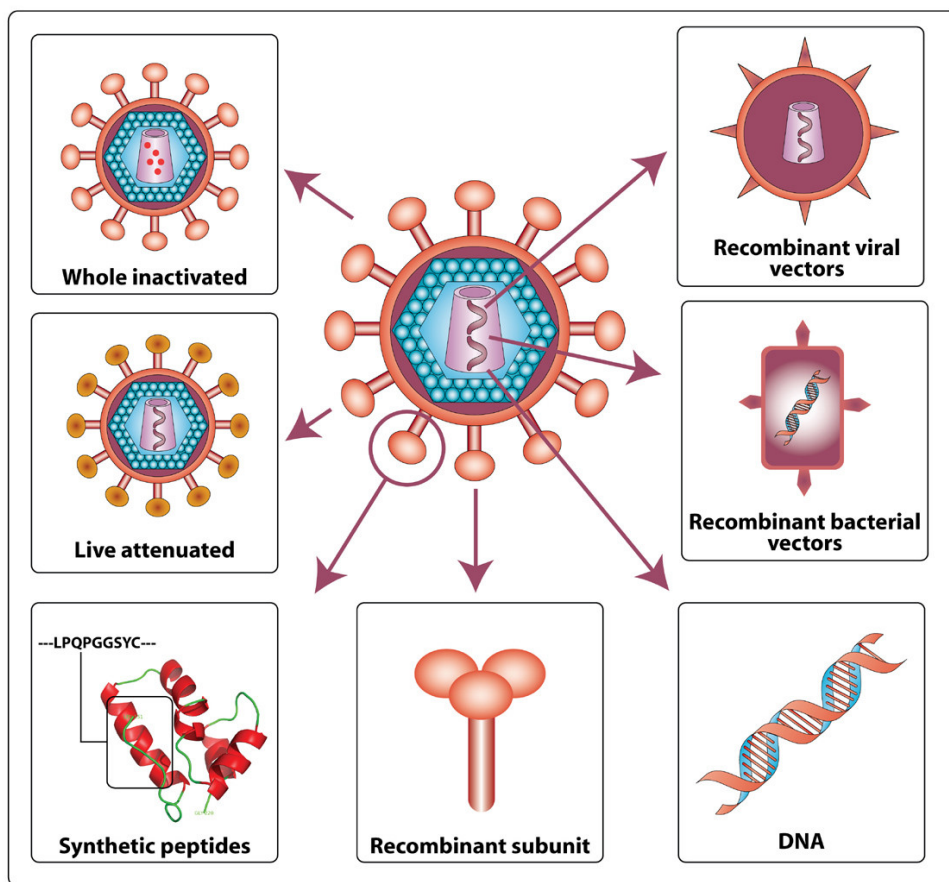
The end result of such blocking is the disruption of the human autonomic nervous system, with its attendant, purposeful effects. Not side effects, but designed-for effects.



## Classification-Toxic components of snake venom

- Enzymes,
- Polypeptides,
- Glycoprotein's, and
- Compounds of low molecular weight.
- They can also be classified as protein (90–95%) and non-protein (5–10%) compounds

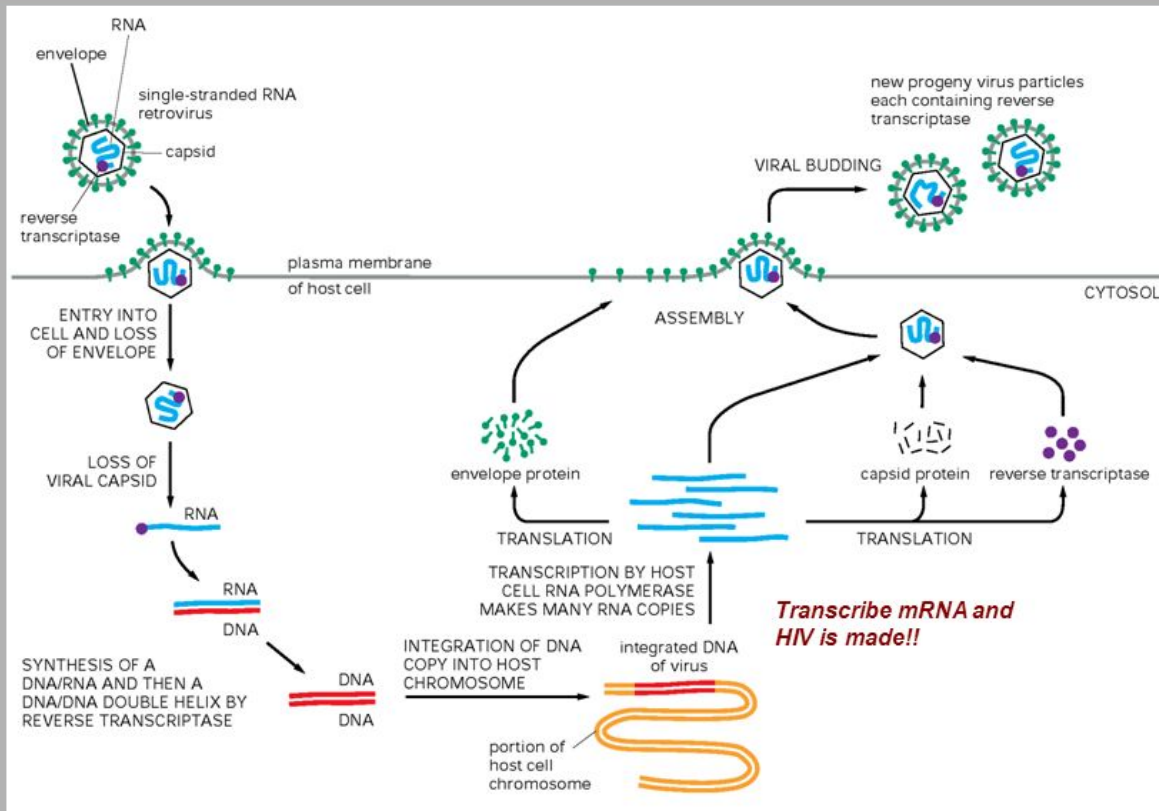
Likewise, any vaccines developed for SARS-CoV-2 will continue disrupting the autonomic nervous system. Why? To continue the spreading (morbidity) of the SARS-CoV-2 virus, not the prevention, or even reduction of its designer effects. Vaccines are copies of a specific virus.



The reason is simple logic. The specific goal is the production of chimeric DNA. The natural result of the purposeful inclusion of 18 genomic fragments of the retrovirus HIV-1 (reference evidence published in the December 2020 issue of this magazine). Retroviruses bind to, thus permanently alter their host DNA. The chimeric gain of function of the SARS-CoV-2 virus.



# Typical Retrovirus Replication Cycle



Chimeric DNA naturally goes viral. It expresses (produces) a chimeric RNA single strand copy of the chimeric DNA, exiting the cell (viral budding) as a provirus and moving on to the next cell to be infected. The eventual final outcome of such a vaccine final solution is the permanent rendering of all who take it as chimera. Is it any wonder both the virus and the vaccine take their design from the serpent?

# Gain-of-Function Research: Ethical Analysis

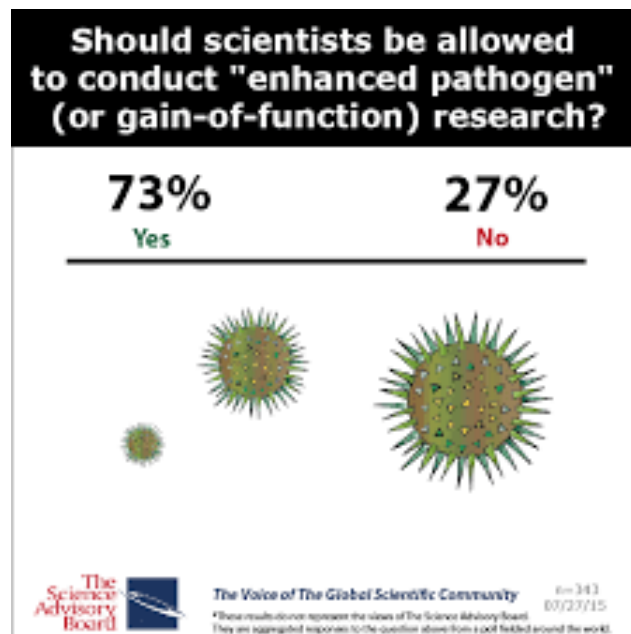
*Sci Eng Ethics*. 2016; 22(4): 923–964.

Published online 2016 Aug 8. doi:[10.1007/s11948-016-9810-1](https://doi.org/10.1007/s11948-016-9810-1)



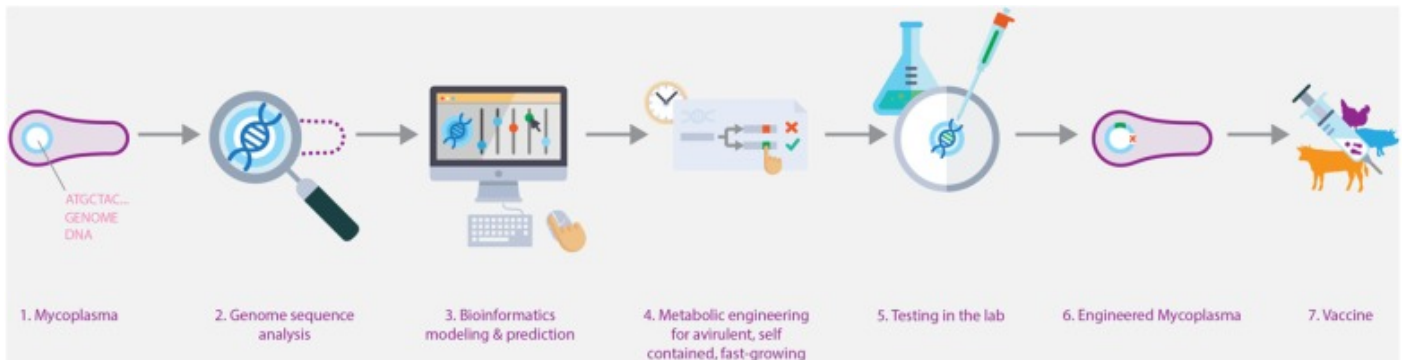
## Executive Summary

Gain-of-function research (GOFR) involves experimentation that aims or is expected to (and/or, perhaps, actually does) increase the transmissibility and/or virulence of pathogens. Such research, when conducted by responsible scientists, usually aims to improve understanding of disease causing agents, their interaction with human hosts, and/or their potential to cause pandemics.



The ultimate objective of such research is to better inform public health and preparedness efforts and/or development of medical countermeasures. Despite these important potential benefits, GOF research (GOFR) can pose risks regarding biosecurity and biosafety. GOFR is a subset of “dual-use research”—i.e., research that can be used for both beneficial and malevolent purposes.

Whereas the dual-use life science research debate has largely focused on biosecurity dangers associated with potential malevolent use of research, the GOFR debate has more explicitly focused on risks involving both biosecurity and biosafety—the point being that creation of especially dangerous pathogens might pose highly significant biosafety risks that are independent of, and perhaps more feasible to measure/assess than, risks associated with malevolent use.



Moving beyond this paper from Science Engineering Ethics, it is important to understand that "gain-of-function" is the euphemism for biological research aimed at increasing the virulence and lethality of pathogens and viruses. Gain of function research is government funded; its focus is on enhancing the pathogens' ability to infect different species and to increase their deadly impact as airborne pathogens and viruses. Ostensibly, gain of function research is conducted for biodefense purposes. These experiments, however, are extremely dangerous. Those deadly science-enhanced pathogens can, and do escape into the community where they infect and kill people. What's more, this line of research can be used for biological warfare.

## Polyethylene Glycol (PEG) and Vaccine Ingredients (Pfizer and Moderna)

Severe allergy-like reactions in at least eight people who received the COVID-19 vaccine produced by Pfizer and BioNTech over the past 2 weeks may be due to a compound in the packaging of the messenger RNA (mRNA) that forms the vaccine's main ingredient. A similar mRNA vaccine developed by Moderna, which was authorized for emergency use in the United States also contains the compound, polyethylene glycol (PEG).



PEG is in many household products we use every day — toothpaste and shampoo to name two. They're used as thickeners, solvents, softeners, and moisture carriers, and they've been used as a laxative for decades. However, PEG has never been used before in an approved vaccine, but it is found in many drugs that have occasionally triggered anaphylaxis, a potentially life-threatening reaction that can cause rashes, a significant drop in blood pressure, shortness of breath, and tachycardia. Some allergists and immunologists believe a some people previously exposed to PEG may have high levels of antibodies against PEG, putting them at risk of an anaphylactic reaction to the Covid-19 vaccine.

**Allergic reactions to vaccines are expected to be one in a million doses. But the Pfizer vaccine experienced six such allergic reactions in just 272,000 patients.**

**Both the Pfizer and Moderna vaccines contain tiny nanoparticles of PEG — polyethylene glycol. The manmade compound is used as part of the packaging of the messenger RNA. PEG helps carry the vaccine to human cells and also acts as a boost to our immune response.**

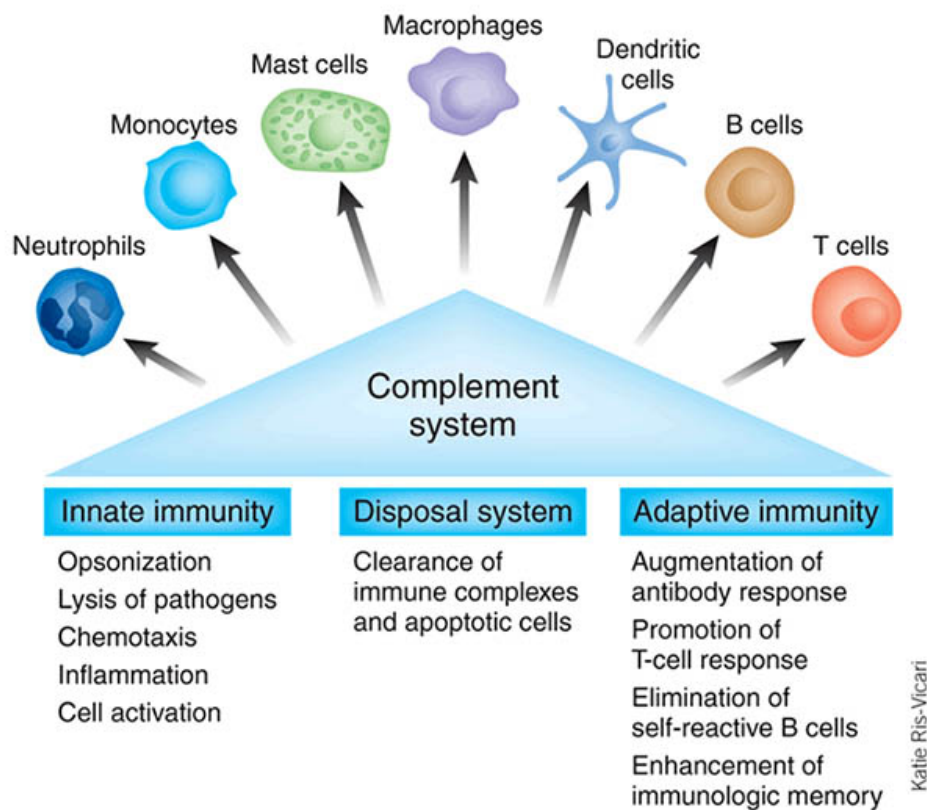
**The Pfizer-BioNTech COVID-19 Vaccine includes the following ingredients:**

**messenger ribonucleic acid (mRNA), lipids (4-hydroxybutyl) azanediyl bis (hexane-6,1-diyl) bis (2-hexyldecanoate), 2(polyethylene glycol)-2000]-N, N-ditetradecylacetamide, 1,2-Distearoyl-sn-glycero-3-phosphocholine, and cholesterol, potassium chloride, monobasic potassiumphosphate, sodium chloride, dibasic sodium phosphate dihydrate, and sucrose.**

**The Moderna COVID-19 Vaccine contains the following ingredients:**

**messenger ribonucleic acid (mRNA), lipids (SM-102, polyethylene glycol [PEG] 2000 dimyristoyl glycerol [DMG], cholesterol, and 1,2-distearoyl-sn-glycero-3-phosphocholine [DSPC]), tromethamine, tromethamine hydrochloride, acetic acid, sodium acetate, and sucrose.**

The mechanism behind PEG-conjugated anaphylaxis is relatively unknown because it does not involve immunoglobulin E (IgE), the antibody type that causes classical allergic reactions. These are now referred to as "anaphylactoid" reactions. Instead, PEG triggers two other classes of antibodies, immunoglobulin M (IgM) and immunoglobulin G (IgG), involved in a branch of the body's innate immunity called the complement system.



It appears another probable cause for anaphylactic reactions may be the inclusion within vaccines of a novel bioluminescence system of luciferase from deep sea shrimp.

# Engineered Luciferase Reporter from a Deep Sea Shrimp Utilizing a Novel Imidazopyrazinone Substrate

Mary P. Hall†, James Unch†, Brock F. Binkowski†, Michael P. Valley†, Braeden L. Butler†, Monika G. Wood†, Paul Otto†, Kristopher Zimmerman†, Gediminas Vidugiris†, Thomas Machleidt†, Matthew B. Roberts†, H  l  ne A. Benink†, Christopher T. Egger†, Michael R. Slater†, Poncho L. Meisenheimer†, Dieter H. Klaubert†, Frank Fan†, Lance P. Encell†, and Keith V. Wood†

ACS Chem. Biol. 2012, 7, 11, 1848–1857

Publication Date: August 15, 2012

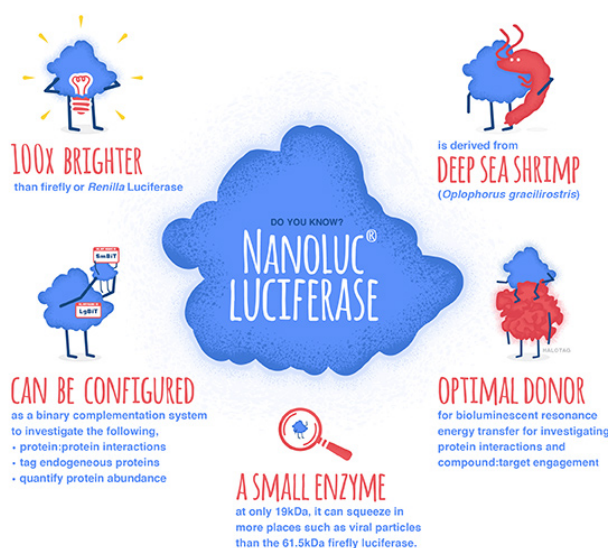
<https://doi.org/10.1021/cb3002478>

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## Excerpt:

The new luciferase, NanoLuc, produces glow-type luminescence (signal half-life >2 h) with a specific activity ~150-fold greater than that of either firefly (*Photinus pyralis*) or *Renilla* luciferases similarly configured for glow-type assays. In mammalian cells, NanoLuc shows no evidence of post-translational modifications or subcellular partitioning.



Reference past editions of this magazine for extensive explanations of the development and contents, including luciferase, of the microneedle array patch delivery system of the "final solution" vaccine.

## **Expected Events and Outcomes**

**In short, what we can expect to see in the near-term with respect to vaccines specific to the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), in combating the coronavirus disease 2019 (COVID-19), is a marked increase and accelerating series of adverse events surrounding their use.**

**Recent events such as breakdowns in the logistical "cold chain" refrigerated transport and distribution of messenger ribonucleic acid (mRNA) based vaccines.**

**Reported purposeful destruction of these refrigerated vaccine vials. Actions we here are *not* in favor of.**

**By design, planned-for effects are not simply to be written off as "side-effects" to humans undergoing Phase Three Trials and the present First Inoculations, with a second round soon to follow this year. Each of the effects presently cited in this magazine, and published in 2020 are in our opinion, intentional. Including the luciferase anaphylaxis.**

**The expected outcome for such planned events and their attendant effects upon humans, is to build up a psychological demand for a "final solution". This, taking the form of a singular, designer vaccine, again based upon messenger ribonucleic acid (mRNA). It will be proclaimed within the propaganda machine we refer to as the "mainstream narrative", as a "cure-all" against the rapidly developing mutations of the SARS-CoV-2 virus, and the aforementioned "side effects".**

**This singular vaccine will include the common drug, nicotine.**

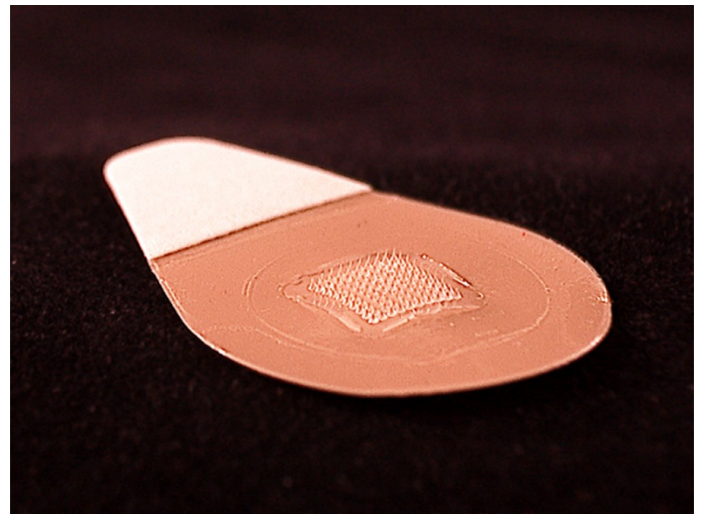


**With the finding of SARS-CoV-2 interacting with nicotinic Acetylcholine Receptors (nAChRs) triggering Nicotinic Cholinergic (NCS) anti-inflammatory system dysregulation, and the now well publicized cytokine storm, the agonist nicotine will be offered as the solution to this specific problem.**

**Most are familiar with the treatment regimen of the nicotine patch for the controlled administration of this common drug. Therefore, when this final solution to SARS-CoV-2 and its mutations and "side effects" is presented in the form of a microneedle array patch, many will not give it a second thought.**



**Nicotine Patch**



**Vaccine Patch**

**After all, it solves a great many other problems. It does not require the use of a cold-chain refrigerated transport and distribution system. The microneedle array vaccine patch can be mailed to you. It solves the problem of training sufficient numbers of personnel to administer a hypodermic needle syringe-based vaccine. Anyone who can apply an adhesive bandage can apply a patch. Again, lowering the psychological barrier to receiving a vaccine.**

**Within the propaganda weapons system of the "mainstream narrative", daily we are bombarded with increasing cases of so-called "side effects" to the early rolling out of vaccines. These are planned effects.**

**More attention now is being given to Postural orthostatic tachycardia syndrome (POTS) and the "long haulers syndrome" of the COVID-19 disease. As well, Polyethylene Glycol (PEG). To a degree, this is helpful to those suffering from these ailments. Yet, from looking at the bigger picture, we are able to see how these planned effects serve a more malevolent purpose. That, of fomenting increasing levels of fear within the global population.**

**This is all part and parcel to the modus operandi of problem, reaction, solution. The problem is by design. So too is the expected reaction, which is fear. Fear acts upon the human autonomic nervous system. It is our instinctual fight or flight mechanism. Within this part of the central nervous system, including the brain, no critical thinking, no asking of questions takes place. Only a reaction to fear.**

**Already we are seeing evidence of increasing fear with propaganda reports of thousands lining up for the vaccines. This despite increasing reports of their (purposeful) "side effects", including death. All by design, both working toward the same goal. A soon-to-manifest, fear-based demand for a "final solution" to each and every one of the problems portrayed within the "mainstream narrative" propaganda psychological weapons system against humanity.**

As outlined in previous editions and herein, most of the research into the development of the virus SAR-CoV-2 was focused upon 2 categories within gain of function research (GOFR) efforts.

First, the purposeful inclusion of 18 genomic fragments of the HIV-1 retrovirus. The primary actions being the promotion of cell entry by SAR-CoV-2, and once inside the cytosol, entry into the cell nucleus for the purpose of binding to and permanently altering the host DNA. The end result being a chimeric DNA.

Second, disruption of the autonomic nervous system, enabling the further transmission by inflammatory fluids of SAR-CoV-2. And, as with the first category of GOFR, the promoting of cell entry through nicotinic receptor binding sites. The end result being the same as the first.

Those funding this designer plandemic, this psychological operation, seek a dramatic reduction of humanity. In the the early stages, the result will be billions transformed into chimeras with the permanent alteration of their DNA. In the not-too-distant future, at least a third of mankind will die.

*15 So the four angels who had been prepared for this hour and day and month and year were released to kill a third of mankind. Revelation 9:15 BSB*



**Comment: Just as we were about to "go to press" with this edition, a new video of a 3D holographic display was released by a mainstream Seattle, Washington television news channel. Please decipher, as we did with the Operation Warp Speed logo.**

**From KGW Television:**



***Seattle welcomes 2021 with stunning virtual display at the Space Needle***

***The year 2021 has arrived! The first-ever virtual spectacular at Seattle's iconic Space Needle with T-Mobile New Year's at the Needle kicked off the year right.***